

# **Hopkinton Storm Water Management Program Plan**

**Town of Hopkinton**  
Rhode Island

Adopted: October 7, 2013



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## Executive Summary

The *General Permit [for] Rhode Island Pollutant Discharge Elimination System Storm Water Discharge from Small Municipal Separate Storm Sewer Systems and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s*<sup>1</sup> (RIR040000) (hereinafter Phase II Storm Water MS4 General Permit) requires that the majority of Rhode Island municipalities develop and implement storm water management program plans (SWMPs). This program is currently in its tenth year of implementation. The Town of Hopkinton (hereinafter “Town”) is not currently mandated by the state of Rhode Island to participate in the Phase II Storm Water MS4 Program; however, the Town received grant monies from the Rhode Island Department of Environmental Management (RIDEM) to develop and implement a SWMP. Furthermore, RIDEM has stated that it is anticipated that Hopkinton will be brought into the Phase II Storm Water Program following revision of the Phase II Storm Water MS4 General Permit.

The table found in *Appendix A* outlines management measures to be taken; identifies the responsible parties and measurable goals; and provides a schedule for implementation over the five-year permit term if and when the Town accepts Phase II Storm Water MS4 General Permit coverage. The listed measures were identified through workshops conducted with the Hopkinton Storm Water Technical Advisory Committee (TAC), which includes the Town Planner, Director of the Department of Public Works, the GIS Coordinator, representatives of RIDEM, and the Town’s engineering consultant, Fuss & O’Neill. Where possible, the measurable goals are identified as quantifiable measures. In other instances, the measurable goals are presented as discrete activities. For these, the conduction of the activity is intended to serve as the goal.

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<sup>1</sup> “MS4” means “municipal separate storm sewer system.”

# 1 Introduction

On December 8, 1999, the U.S. Environmental Protection Agency (USEPA) promulgated Phase II of its National Pollution Discharge Elimination System (NPDES) storm water regulations. Phase I of the USEPA storm water program established regulations for storm water discharges from municipal separate storm sewer systems (MS4s) in municipalities with populations of 100,000 or greater, construction activities disturbing five or more acres of land, and ten categories of industrial facilities. The Phase II Final Rule expands the Phase I program by requiring smaller communities with MS4s in urbanized areas to implement programs and practices to control polluted storm water runoff through the use of NPDES permits. Urbanized areas are based on the decennial census, 2000 or later.

USEPA has delegated the state of Rhode Island to implement the Phase II program on their behalf. Therefore, in Rhode Island, Phase II regulated communities are required to submit a notice of intent (NOI) to apply for coverage under a Rhode Island Pollutant Discharge Elimination System (RIPDES) permit—the *General Permit [for] Rhode Island Pollutant Discharge Elimination System Storm Water Discharge from Small Municipal Separate Storm Sewer Systems and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s*—issued by the Rhode Island Department of Environmental Management (RIDEM). As part of this process, the regulated municipalities are required to prepare and submit Storm Water Management Program Plans (SWMPPs) that discuss how the regulated MS4 will comply with six minimum control measures (MCMs). These six MCMs include:

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post Construction Site Runoff Control
- Good Housekeeping/Pollution Prevention

Although the Town is not a regulated municipality at this time, RIDEM has stated that the Town is likely to be brought into the program when the current Phase II MS4 Storm Water General Permit is reissued. RIDEM gave the Town a grant to complete a SWMPP. For this reason, the following plan was prepared using the Phase II MS4 Storm Water General Permit requirements as a guide. *Section 2* of this SWMPP provides a discussion of the water resources and land uses in the community as potential targets for prioritization of activities to address the six minimum control measures. *Section 3* through *Section 7* provides a discussion of the existing programs and practices for each of the minimum control measures. This includes a section of “Implementation Alternatives.” These are modifications to existing programs or activities or additional measures which may be used to satisfy the permit requirements after the Town becomes regulated. *Sections 8* and *Section 9* discuss storm water abatement opportunities, storm water source reduction, and advanced management. *Section 10* discusses proposed methods to evaluate the program. This includes discussion of revisions to the storm water management program, annual reporting, and record keeping. *Sections 11* and *12* include a summary of the elements, responsible parties for implementation, and the measurable goals for each measure. This section also includes a schedule for implementation.

## 2 Watershed Inventory

Hopkinton is located in the state of Rhode Island in Washington (i.e., South) County and is bordered by four Rhode Island towns as well as two towns in the state of Connecticut. See the site location map in *Figure 1*.



Figure 1- Town of Hopkinton Location Map

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## 2.1 Existing Water Resources

Hopkinton is located completely in the Wood-Pawcatuck Watershed. The entire Wood-Pawcatuck Watershed covers nearly 197,000 acres over ten Rhode Island towns. Major rivers and tributaries to this watershed within Hopkinton include the Upper Wood River and Pawcatuck River.

A number of existing water resources should be the focus of future storm water management activities in Hopkinton to minimize impacts from changing land use patterns. These water resources include rivers, streams, ponds, and groundwater aquifers. *Section 2.1* of this SWMPP provides a discussion of some key aspects of the Town's water resources.

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## 2.2 Impaired Waters

### 2.2.1 General Discussion

The Office of Water Resources of the Rhode Island Department of Environmental Management (RIDEM) has prepared a list of impaired waters in Rhode Island in compliance with section 303(d) of the federal Clean Water Act (CWA). These impaired waters are defined as those that do not meet state of Rhode Island Water Quality Standards. Total maximum daily loads (TMDLs) are planned to be developed for each of these waters. The purpose of the TMDLs is to identify the capacity of a surface water to assimilate pollutants without impacting its designated uses (e.g., fishable, swimmable) as well as meet the state water quality standards. Future TMDLs may require more intensive storm water controls to more aggressively reduce sources of storm water pollution. All impaired waters in Hopkinton are shown in *Figure 2*.

The surface waters in Town identified on the state's 303(d) list, issued August 2012 are: (1) Ashaway River and tributaries, (2) Mile Brook, (3) Pawcatuck River and tributaries, (4) Canonchet Brook and tributaries, and (5) Wood River and tributaries. The cause of impairment, TMDL level of implementation, and the TMDL implementation schedule for these waters is summarized in *Table 2.1*.

**Table 2.1  
Impaired Waters**

<b>Waterbody Name (ID #)</b>	<b>Cause</b>	<b>Group <sup>a</sup></b>	<b>Calendar Year Target for TMDL (control action)</b>
Ashaway River	Cadmium	5	2018
Mile Brook	Iron	5	2018
Pawcatuck River	Benthic- Macroinvertebrate Bioassessments	5	2018
	Enterococcus		2014
Canonchet Brook	Cadmium	5	2018
	Copper		
	Iron		
	Lead		
Wood River	Ambient Bioassays— Chronic Aquatic Toxicity	5	2018
	Benthic-Macroinvertebrate Bioassessments		
	Copper		

<sup>a</sup> Group 1 Waters not meeting RI WQ Standards and TMDL is currently under way.

Group 2 Waters not meeting RI WQ Standards and TMDL is planned for the future.

Group 3 Dissolved Metals Data needed. No Group 3 waterbodies included on the 2006 list.

Group 4 Insufficient data and/or data are old. Further monitoring is required to determine WQS violations.

Group 5 TMDL or equivalent has been developed. Implementation is underway but standards will not be met within next two years.



Figure 2- Impaired Waters in Hopkinton with and without Approved TMDLs

## 2.2.2 Impaired Waters with Approved TMDLs

The Town has eight waters with approved TMDLs within its boundaries. Each of these waters is included as part of the *Rhode Island Statewide TMDL for Bacteria Impaired Waters* (RIDEM, 2011). *Section 6.3* of this TMDL discusses “MS4-Specific Requirements to Comply with RIPDES Phase II.” This discussion includes the following stipulation:

In general, for implementation of this TMDL, bacteria impaired waters having watersheds with less than 10% impervious cover are assumed to be caused by sources other than urbanized storm water runoff and MS4 operators will have no changes to their current Phase II permit requirements. (RIDEM, 2011, p. 51)

*Table 2.2* and *Figure 3* and *Figure 4* summarize each of the TMDL watersheds by percent imperviousness.

**Table 2.2**  
**Percent Impervious Cover for Each**  
**TMDL Watershed in the Town of Hopkinton**

TMDL	Percent Impervious Cover
Ashaway River	<1%
Mile Brook	9.8%
Pawcatuck River	3.4%
Tomaquag Brook	3.6%
Parmenter Brook	3.3%
Brushy Brook	4.3%
Canonchet Brook	2.6%
Wood River	~1.6%

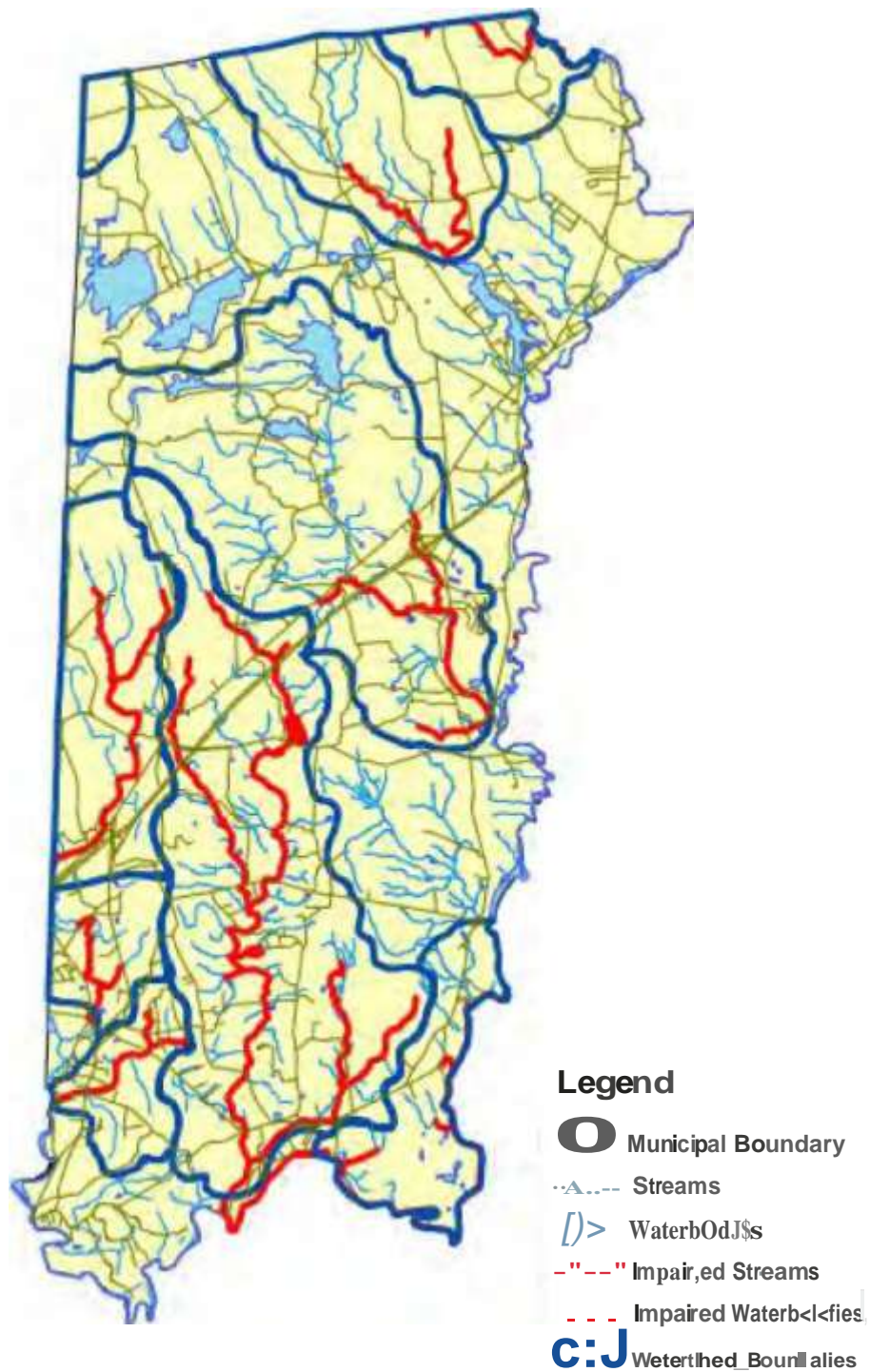


Figure 3- TMDL Watershed Locations and Impaired Waters with and without Approved TMDLs

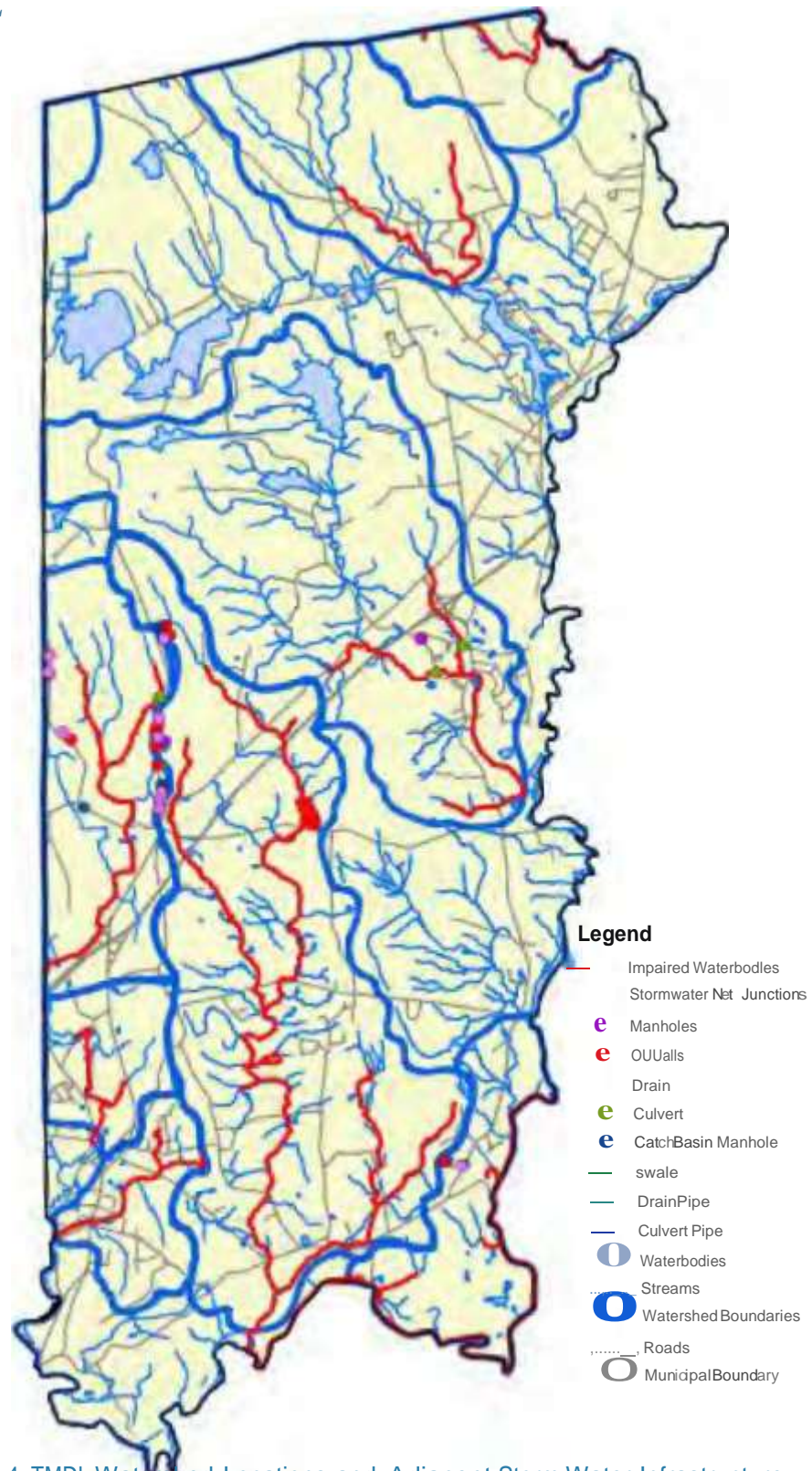


Figure 4- TMDL Watershed Locations and Adjacent Storm Water Infrastructure

Because percent impervious cover is less than 10% in each of the waters listed in *Table 2.2*, the bacteria impairments are assumed to be caused sources other than urban storm water and Hopkinton is not required to address the TMDLs in their SWMPP at this time.

The watershed summaries for each of the eight Hopkinton waters in the *Rhode Island Statewide TMDL for Bacteria Impaired Waters* are provided in *Appendix B*. Recommendations made in each of these TMDLs are summarized in *Section 2.3*.

*Figure 3*, above, depicts approved TMDLs, other water quality impairments, and known MS4 infrastructure. As shown in *Figure 4*, the majority of the Town outfalls are located within watersheds of impaired waters, but significantly distant from those impaired waters. All known outfalls discharge to overland flow. The Town anticipates updating this mapping as outfalls and other MS4 features are located and installed. As part of normal public works operations, the Town also intends to look for water quality improvement opportunities where appropriate and practicable; however, no best management practices (BMPs) or specific BMP field investigations are planned at this time.

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## 2.3 Sole Source Aquifer

The entire Town, overlays a sole source aquifer (SSA), known as the Pawcatuck Basin Aquifer System. It was designated as a SSA by the USEPA on May 13, 1988. The USEPA defines a SSA as one that supplies at least 50% of the drinking water consumed in the area overlying the aquifer. To be designated as an SSA, USEPA requires that a recharge area have no alternative drinking water source(s), which could physically, legally, and economically supply water to all who depend on the aquifer for drinking water.

Given the critical nature of this aquifer, the Town should consider the following four factors:

- Encourage infiltration to replenish aquifer water supply.
- Enhanced controls to protect groundwater from potential pollutants such as nitrogen and petroleum hydrocarbons.
- Focus infiltration efforts in areas with highly permeable soils and low amounts of higher risk land uses.
- Proper protection of wellhead areas.

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## 2.4 Special Resource Protection Waters

Eight Special Resource Protection Waters (SRPW), fall within Hopkinton's boundaries. SRPWs are high quality surface waters identified by RIDEM as having significant resource values, which may include, but are not limited to, wildlife refuge or management areas, public drinking water supplies, state and federal parks, state and federal designated estuarine sanctuary areas, and waterbodies containing critical habitats. The following SRPWs exist in the Town of Hopkinton:

- Asheville Pond
- Blue Pond
- Ell Pond
- Long Pond
- Pawcatuck River
- Phantom Bog
- Wood River
- Yawgoog Pond

These SRPWs are depicted in *Figure 5*. Information on SRPWs is available from RIDEM Office of Water Resources and the RIDEM Natural Heritage Program.

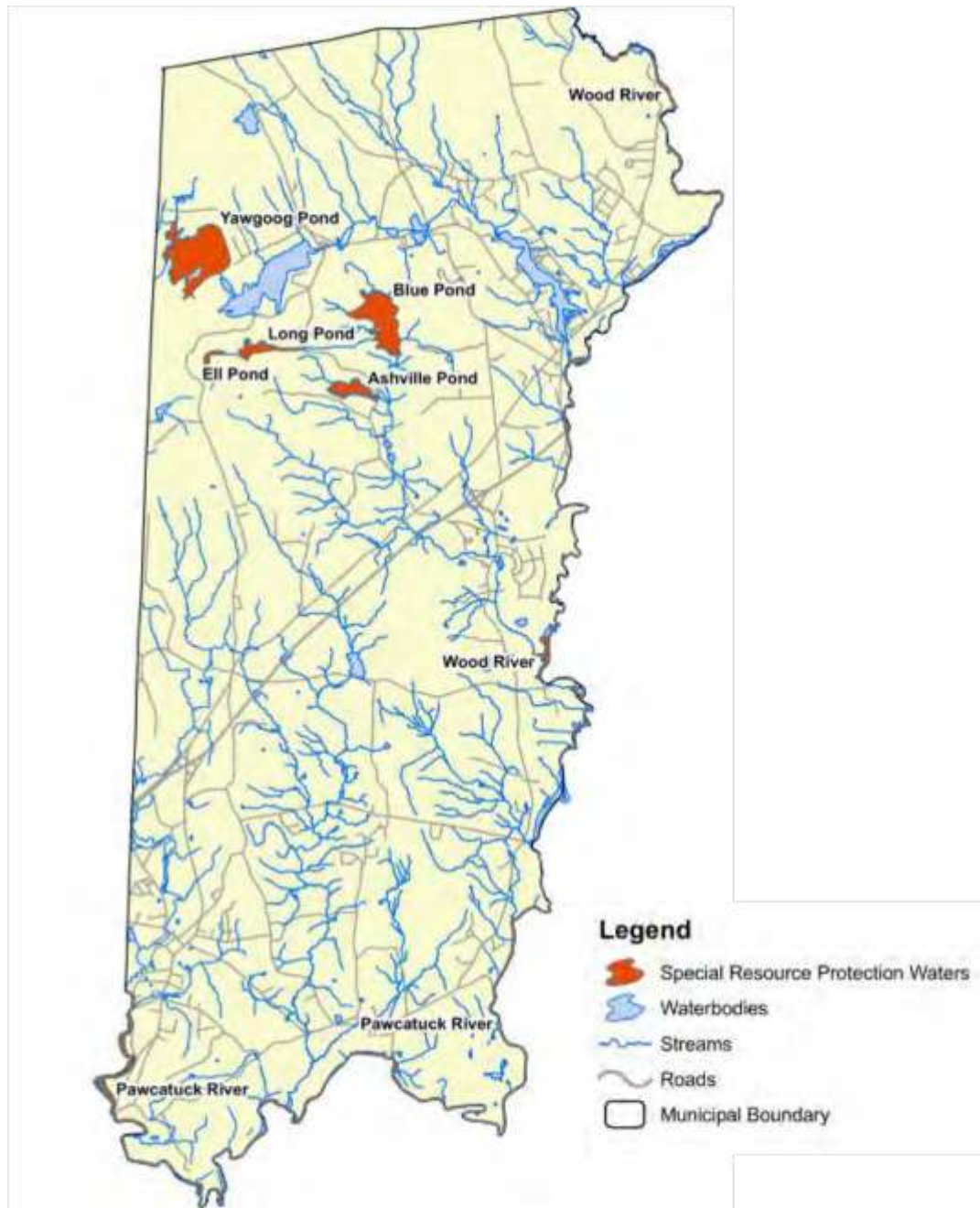


Figure 5—Special Resource Protection Waters in Hopkinton

Under Tier 2 of the Antidegradation Provisions, Protection of Water Quality for SRPWs, the state cannot allow any measurable degradation of the existing water quality necessary to protect the characteristic(s) that cause the waterbody to be designated a SRPW. A new or increased discharge or activity will not be allowed unless it can be proved that specific pollution controls and/or other mitigation measures and BMPs will completely eliminate any measurable impacts to water quality necessary to protect the waterbody.

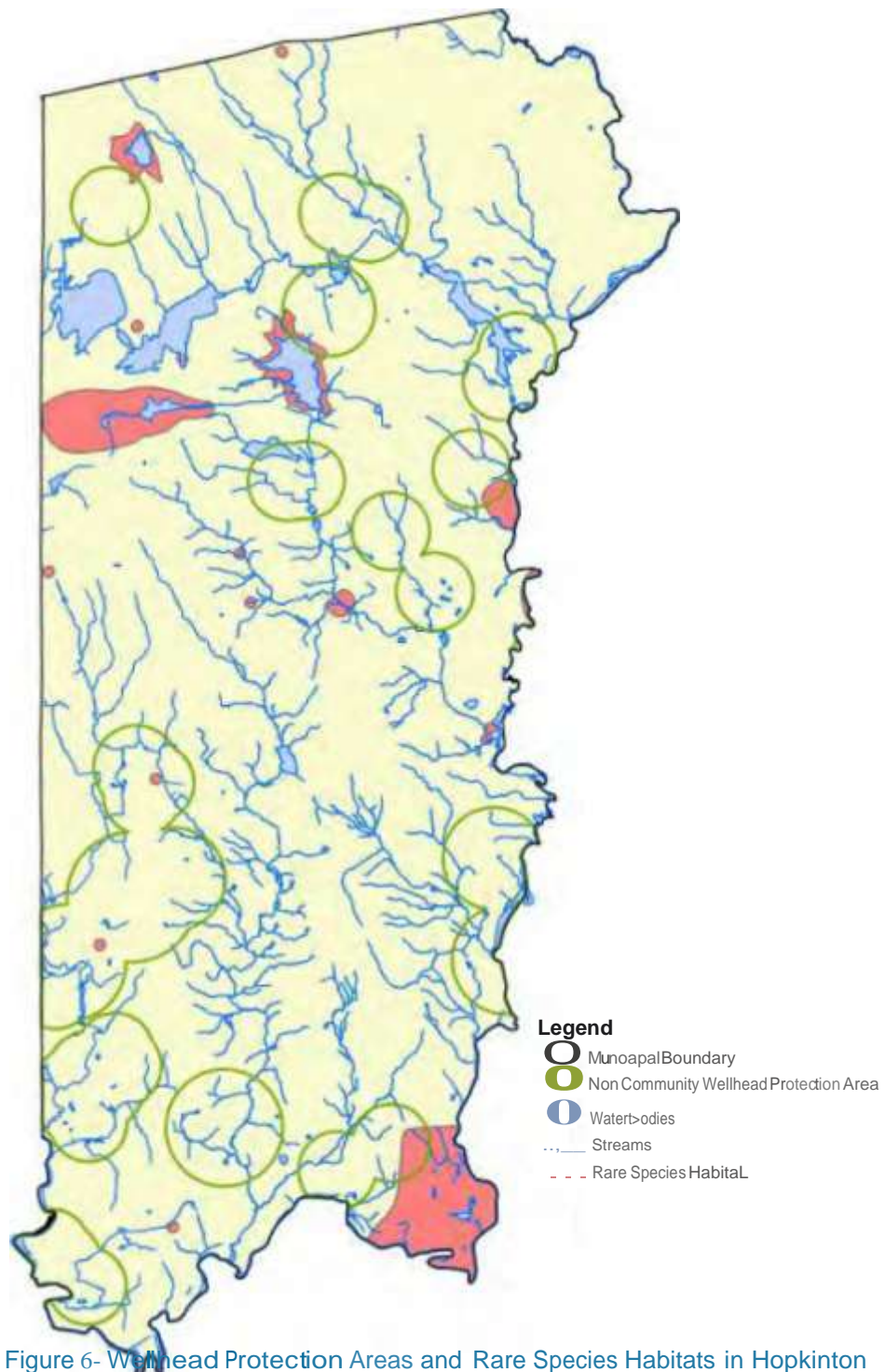
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## 2.5 Wellhead Protection Areas

The Rhode Island Wellhead Protection Program is an important element in the state's effort to protect groundwater resources and maintain safe drinking water supplies. RIDEM, in recognition of groundwater's importance, developed this program. Presently, much of the state's groundwater is of good to excellent quality and continuing this status depends on establishing protection measures to assure the long-term viability of this resource.

The Wellhead Protection Program was established for the protection of recharge areas contributing to public water supply wells under the state Ground Water Protection Act (1985). There are several RIDEM-delineated wellhead protection areas in Hopkinton (see *Figure 6*).

Municipalities that have wellhead protection areas are required to conduct an inventory of known and potential sources of groundwater contamination within the wellhead protection area and prepare a wellhead protection plan. Focusing on these areas could maximize protection of the groundwater supplies and thus, Hopkinton's drinking water quality.



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## 2.6 Rare Species Habitat

Points of storm water discharge are likely to have adverse effect on wildlife habitats. Approximately 70% of Rhode Island's federally listed rare species are found within the Wood-Pawcatuck Watershed so it is imperative that the habitats of these species in Hopkinton are protected. According to available RIGIS data there are areas identified as state-listed rare species habitats in Hopkinton. These areas are depicted in *Figure 6*.

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## 2.7 Wetlands

Wetlands make up approximately 259 acres (less than 1%) of the Town as depicted in *Figure 7*. These wetlands are important buffers between land uses and adjacent waterbodies in Hopkinton, ultimately acting as a mechanism to filter out pollutants from storm water before it discharges into a stream or pond. Storm water prevention efforts should be made in residential areas where other wetland buffers exist adjacent to impaired waterbodies. Enhancement of wetland buffers should be constructed along impaired waterways whenever possible.

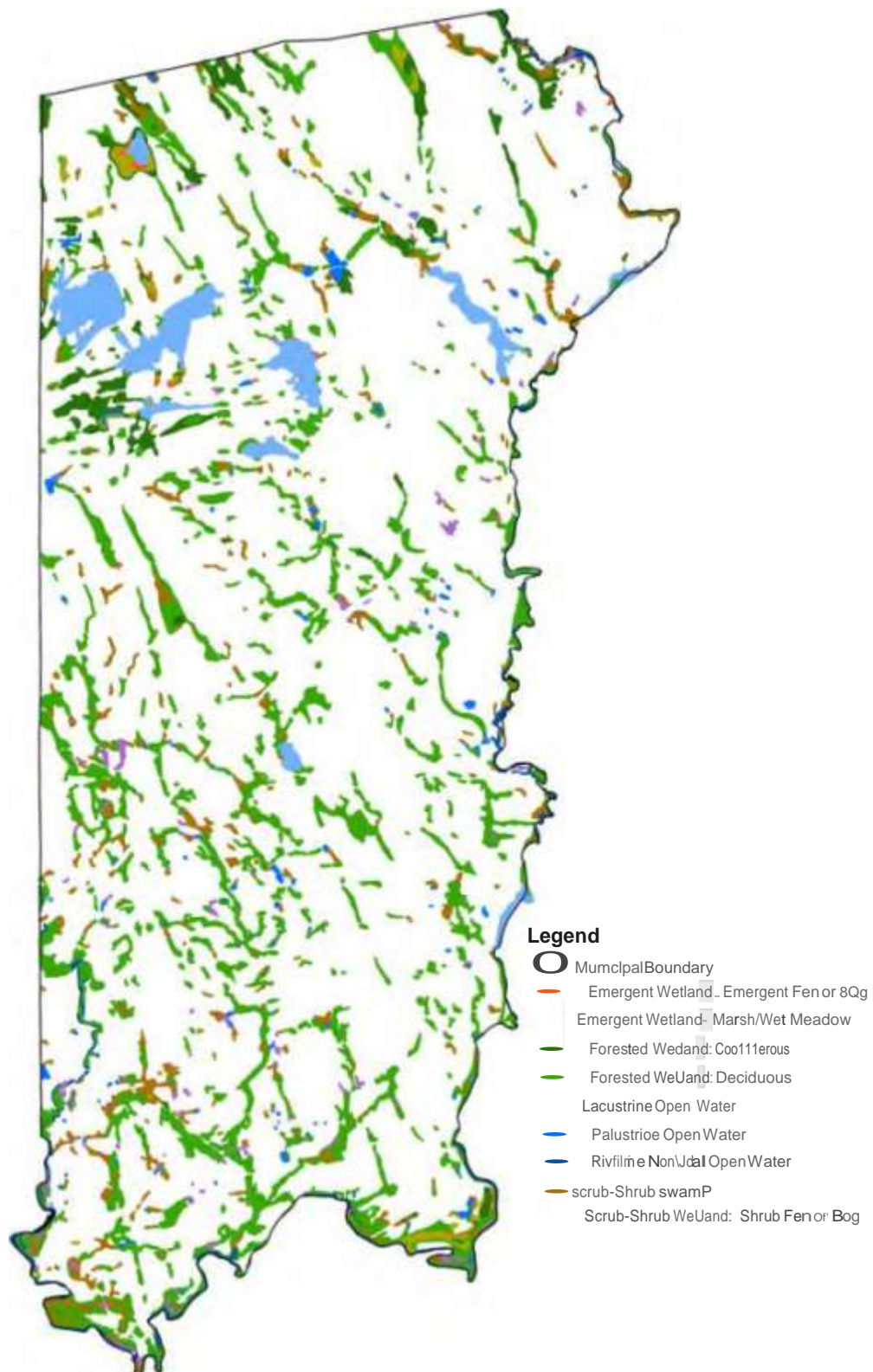


Figure 7- Wetland Resources in Hopkinton

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## 2.8 Land Use and Land Cover

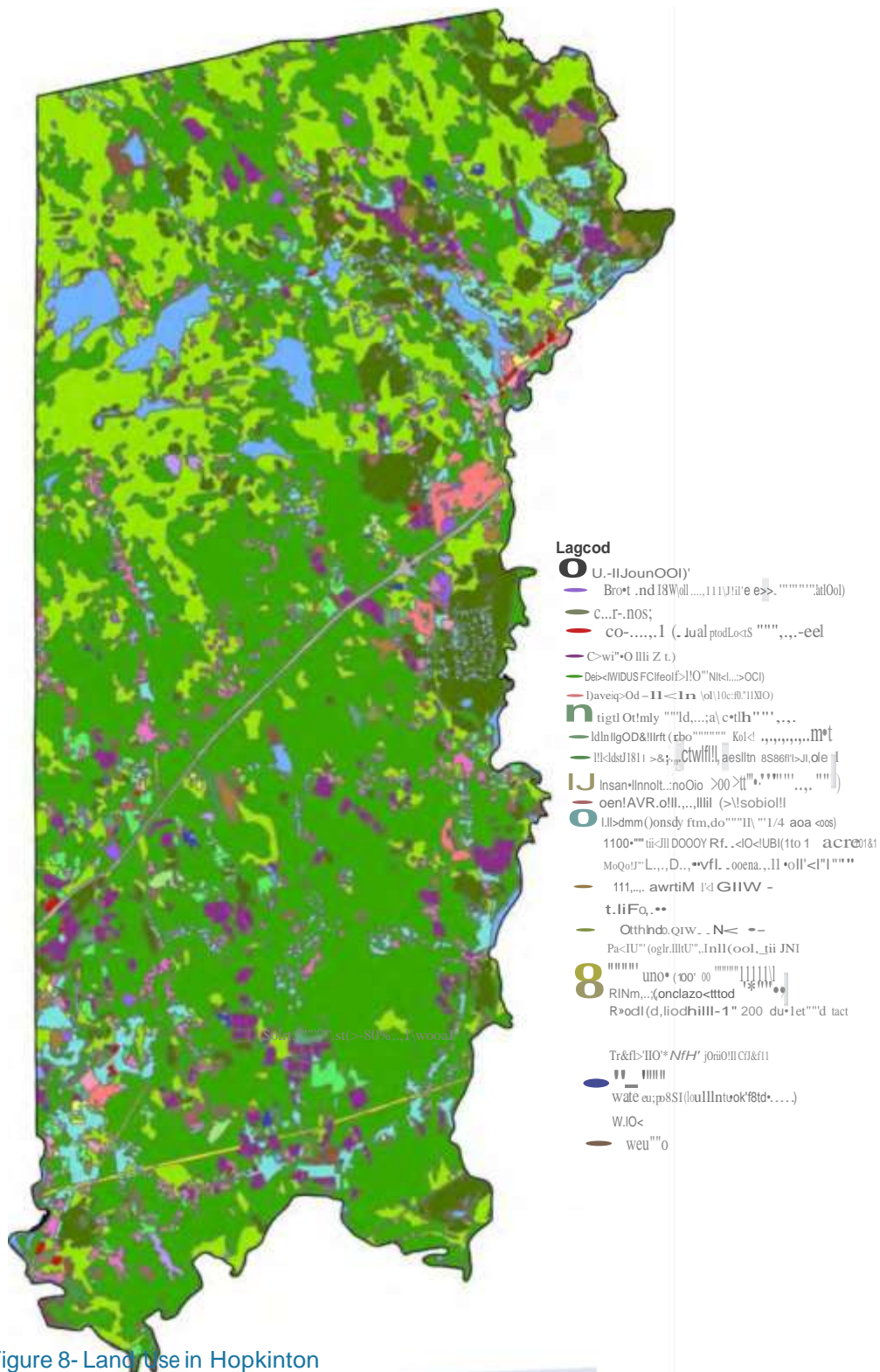
Different land uses and land cover are associated with different concentrations and types of pollutants that may affect the quality of storm water runoff. For example, residential land uses often result in higher nutrient (nitrogen and phosphorous) concentrations in runoff due to the use of fertilizers while metals concentrations are often higher in runoff from commercial areas due to vehicular traffic.

Based on RIGIS mapping, the majority of Hopkinton's land cover consists of deciduous forest (48%) and mixed forest (21%). The next most extensive land uses are roads (9%), softwood forest (7%), medium density residential area (3%), water (3%) and cropland (2%). Medium-density residential areas are mainly located along the northeastern Town border and are scattered throughout the rest of the Town but generally are more concentrated in the south. Cropland is generally located in the southern half of the Town as well. Commercial developments also exist in the Town, and this land use, as well as residential land use, is expected to increase over time.

*Table 2.3* and *Figure 7* identify the land uses in Hopkinton based on data available from RIGIS. The RIGIS data was developed from interpretation of 2003-2004 aerial photography.

**Table 2.3  
Land Use and Land Cover**

<b>Land Use</b>	<b>Acreage</b>	<b>Percent of Total Land (%)</b>
Cropland	953	2%
Deciduous Forest	19,796	48%
Developed Recreation	237	1%
Low Density Residential	336	1%
Medium Density Residential	1,275	3%
Medium Low Density Residential	510	1%
Mixed Forest	8,577	21%
Pasture	522	1%
Roads	3,714	9%
Softwood Forest	2,793	7%
Water	1,198	3%
Wetland	259	1%
Other	1,001	2%
<b>TOTAL</b>	<b>41,171</b>	<b>100%</b>



### Figure 8- Land Use in Hopkinton

Table 2.4 identifies the priority, higher-risk land coverages in the Town. These categories of land cover are determined from Appendix G of the *Rhode Island Nonpoint Source Pollution Management Plan, State Guide Plan Element 731, Report Number 87*, dated October 1995, developed by the RIDEM, which has been attached to this report as *Appendix C*.

**Table 2.4**  
**Priority Land Use**

<b>Land Coverage Categories</b>	<b>Acreage</b>	<b>Percent of Total Land (%)</b>
Minimal/ Slight Risk	37,763	91.7%
Moderate Risk	1,275	3.1%
High Risk	516	1.3%
Agriculture	1,617	3.9%
<b>TOTAL</b>	<b>41,171</b>	<b>100%</b>

The *Rhode Island Nonpoint Source Pollution Management Plan* identifies five classifications of land use risk—minimal, slight, moderate, high and severe. These categories are classified by density and type of land-use category. Because in the RIGIS database these land-use categories are not classified by density, it was assumed that all of the land in each land use category was put in the highest land-use risk category as identified by the list in the *Rhode Island Nonpoint Source Pollution Management Plan*. Additionally, the severe-risk land use categories were identified as photo processors and commercial stores with parking lots greater than one acre in size. Because none of these areas can be identified given the land use data available, severe risk land use was not listed. Additionally, agricultural land was removed from all risk categories and listed as its own for the purpose of analysis.

High-risk land uses are those that present a higher potential to contribute pollutants such as sediment, metals, nutrients, and pathogens. The highest risk areas are those that contain a high percentage of impervious area, activities using dangerous chemicals, and high level of human activity thus creating a higher degree of human impacts (including automotive impacts). These areas would be identified as areas with industrial, institutional, commercial, quarries, transportation, high density residential, and waste disposal land uses. Industrial and commercial land uses can contribute solids, oils and grease from high-volume parking areas, and material handling operations. They may also contribute toxins and metals dependent upon the activities conducted at the site from areas associated with manufacturing and waste disposal. Transportation related land uses have the potential to degrade water quality from vehicular spills (oils, grease, and antifreeze), salting and sanding, and particulate deposition. Higher concentration of metals can also be found due to tire wear, brake pads, and body wear. These areas are particularly dangerous when located on highly permeable soils, as the pollutants are easily accepted into the groundwater.

Medium-risk areas are those that contain a considerable amount of impervious area and human impacts (including pet waste impacts). These areas consist of medium density land use designations. Residential land uses can be significant sources of nutrients and pathogens. Improper lawn care can contribute

excess nutrients to the storm drainage system. Sanitary systems that are not properly designed, constructed, or maintained can be significant sources of nutrients, pathogens, and organic contaminants. Residential land uses may be a source of contaminants due to improper disposal of household hazardous wastes.

The agricultural lands are associated with fertilizer and pesticide runoff pollution. We have included in this group cropland, orchards, pasture, and idle agriculture land uses.

All other land was classified as minimal or slight risk land uses.

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## 2.9 Implementation Alternatives

The Town of Hopkinton, given current environmental and land-use conditions, has the opportunity to prevent further storm water impacts and preserve current, relatively unspoiled, conditions. In order to prevent damage from storm water runoff, the Town should focus their efforts on the following:

- Consider preserving the largely untouched land areas of Town where appropriate. Consider achieving this through smart growth strategies and programs such as the Smart Growth Rhode Island, Rhode Island Rural Lands Coalition, and the Green Cities Initiative through the Trust for Public Lands (TPL). See <http://www.epa.gov/nps/lidnatl.pdf> and [www.tpl.org](http://www.tpl.org) for additional programs and information on the USEPA Low Impact Design Manual and TPL, respectively.
- Focus residential education and outreach on the higher-density residential portions of Town (*Figure 8*), and in proximity to the impaired waterways.
- Evaluate LID retrofit opportunities identified through outfall mapping and normal public works operations at Town outfalls draining to priority waters (i.e., impaired waters, SRPWs, cold water fisheries, etc.) Ensure that runoff from roadways surrounding the Town's priority waters are properly treated with appropriate BMPs to deter further degradation from solid loads.
- Develop a Townwide educational program to change current behaviors to protect and preserve priority waters in Hopkinton. Topics that should be included are proper septic system maintenance, proper lawn care, domestic animal management, horse stable management, and solid waste management.
- Develop a program for new construction education for developers and Town staff. Include regulatory control over proposed development plans and updating zoning designations to protect natural resources. Consider updating the Town's Comprehensive Plan to evaluate the need for Townwide development planning and policy updates.

## 3 Public Education and Outreach

### 3.1 State and Federal Regulatory Requirements

The success of any storm water management program is improved by educating the public about the impacts of certain behaviors and practices on surface water quality in their watershed. In addition, public education will improve the Town's ability to gain support to implement this program as well as secure required funding. For these reasons, the RIDEM has included public education and outreach as a minimum control measure of the Phase II Storm Water MS4 General Permit. The requirements to satisfy this minimum control measure are:

1. Implement a public education and outreach program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on local waterbodies and the steps that can be taken to reduce storm water pollution; and
2. Determine the appropriate BMPs and measurable goals for this minimum control measure.

To help municipalities comply with this minimum control measure, RIDEM, the Rhode Island Department of Transportation, and the University of Rhode Island (URI) Cooperative Extension (Ad Hoc Committee) have developed a Storm Water Education and Outreach Program that will provide the Town access to the resources necessary to develop educational and regulatory programs that meet such requirements through the program's assistance. Therefore, the Town intends to work with the Ad Hoc Committee in implementing this minimum control measure.

The following sections discuss the existing programs, identify available resources, and provide implementation alternatives for the Town to incorporate with the Ad Hoc Committee program. Continuation of these additional measures will remain at the Town's option as the Ad Hoc Committee program is designed to cover the public education measure in its entirety.

### 3.2 Available Resources

There are a number of resources and public education resources currently available to assist Hopkinton to achieve the requirements of this minimum control measure. Examples of existing education and outreach materials and other potential resources are provided in *Appendix D*.

Teachers in the Hopkinton School System have a number of resources and periodicals available to them that focus on environmental issues including water quality. These resources come from a range of sources including the federal and state agencies and from local organizations and groups. These resources are included in *Appendix D*.

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### 3.3 Educational Targets

While a future education program should be designed to offer a broad discussion of storm water quality issues, there are issues that should be targeted in every municipality as the focus of the program. These targets can include diverse audiences, subwatersheds, and sources of pollution. Based on the current conditions and storm water quality issues in Hopkinton, several targets have been identified where a future educational program should be focused.

#### 3.3.1 Sources of Pollution

Given the current conditions in Hopkinton, the future public education program should target the following sources of pollution.

- *Illicit discharges:* Illicit discharges from septic systems or illegal dumping can be a significant contribution to water quality. Management of illicit discharges can help to reduce the impact of pollution from illicit discharges.
- *Pet and domestic animal waste management:* A potentially significant source of pathogens is pet waste, which is present in most communities.
- *Solid Waste Disposal:* Every year, there are regularly scheduled clean-up efforts provided by the Town's Conservation Commission to remove debris from Hopkinton's waterbodies.
- *Construction Sites:* The Town of Hopkinton is experiencing significant increases in proposed development.
- *Turf Management:* Proper turf management, specifically where potential polluting land uses surround water resources, is essential for water quality. Turf management is essential as excess fertilizer use increases nutrient loading and has been proven to promote eutrophication (oxygen depletion and algae growth) in impounded waters. Improper pesticide use can also introduce toxic chemicals that can be harmful to aquatic species, wildlife, and humans.

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### 3.4 Implementation Alternatives

The goal of a public education program in Hopkinton should include several elements as follows:

- Provide general education to the public about storm water quality issues that will both improve their awareness, change habits that could impact water quality, and build support for funding of storm water quality programs.
- Develop school programs that will build long-term awareness and support for storm water programs.
- Target specific areas and issues where enhanced public education could provide significant benefits.

The Town plans to rely on the Ad Hoc Committee for implementation of their public education and outreach program; however, the Town may additionally choose to implement the recommendations in these sections. While a number of resources are available to Hopkinton for a public education program on storm water quality, work still needs to be completed in actually organizing and implementing a formal program. The following outlines alternatives for implementing this minimum control measure.

### 3.4.1 Provide General Education

The following items are recommendations for general storm water education in the Town of Hopkinton:

- Collaborate with neighboring municipalities to build or to jointly request assistance from groups such as the Environment Council of Rhode Island and the Southern Rhode Island Conservation District (SRICD) to develop an educational campaign for this focus area. These campaigns should center on common themes in this region such as proper septic system maintenance, pet waste management, and proper turf management.
- Develop a “New Neighbor” welcoming program for individual residents. The Town could send out the informational package to all residents as a starting point, and then transition the program to send out packages to property owners whenever a property transfer is made. This program would inform residents of the Town’s storm water program, BMPs, and information about storm water pollution and proper septic system maintenance. Provide simple, attractive pamphlets with the basic information necessary for new residents to determine how to prevent storm water pollution and the importance of citizen involvement including a list of community organizations. It may be beneficial to develop watershed specific programs that focus on the critical resources in that area, why the resource is important, and how they can individually protect their watershed. The package should also include emergency phone numbers, such as RIDEM, a local storm water hotline, and the fire department; and what to do in the event of an accidental spill. In order to coordinate and initiate this program, the SRICD should be contacted. Materials could be posted on the Town’s website. Materials that could be included to focus on local issues are:
  - *10 Simple Things You Can Do To Help Clean Rhode Island Waters* (RIDEM, Office of Water Resources).
  - *Don’t Trash Grass*. Oscar’s Guide to Lawn Care (OSCAR).
  - *Rhode Island Rural Lands Coalition* (SRICD).
  - Natural Resources Facts- *Maintaining Your Septic System*, Fact Sheet No. 96-1 (URI Cooperative Extension).
  - Natural Resources Facts- *What is a Watershed?*, Fact Sheet No. 90-20 (URI Cooperative Extension).
  - Water Quality Facts- *Drinking Water Wells*, Fact Sheet No. 94-6 (URI Cooperative Extension).

- Natural Resources Facts- *Lawn Care Simplified: Your Guide for a low-maintenance, high water quality landscape*, Fact Sheet No. 94-4 (URI Cooperative Extension).
- Have municipal officers attend programs from URI's nonpoint source education for municipal officers (NEMO), so that they can make more informed storm water and land use management decisions. URI Cooperative Extension provides many of these programs at their campus and may be able to offer some presentations at Town facilities.
- Use groups such as the Wood-Pawcatuck Watershed Association to develop language for public kiosks and/or signage to be placed on public lands, which provide access to natural resources (i.e., at fishing locations). They should provide information to the public about the significance of that water's quality, the effects of storm water, and conservation.
- Petition the state to place signs and passive interpretation to promote environmentally sensitive practices along trails located adjacent to waterbodies.
- Develop a series of materials to be distributed to the residents of Hopkinton. *Appendix E* includes flyers that the Town may decide to make available at public facilities (e.g. Town Hall, library, etc.), post flyers on the Town's website, or distribute flyers with one of the locally distributed newspapers. Potential topics for educational materials include but are not limited to: waste management and trash removal, managing homeowner's septic tanks and private wells, and protecting local waters.
- Expand the Town's current municipal website to include general storm water information, electronic copies of educational flyers, septic maintenance and well protection information for new residents, links to water resource websites (URI, USEPA, RIDEM, etc.), schedules for educational workshops and presentations, location(s) of educational exhibits, and an electronic copy of this Storm Water Management Plan once completed.

### 3.4.2 School Programs

- The following items are recommendations for storm water education programs in Hopkinton schools: Meet with school officials responsible for science curriculum development. Ensure that these officials are made aware or provided with copies of the educational resources presented herein. While water related topics are discussed at the Elementary and Middle School level, all levels of education could benefit from additional hands-on storm water related education. The SRICD, ASRI, and/or Catch the Science Bug can be contacted for more educational opportunities. The school district should consider supplementing the current curriculum with programs such as AWEsome! and Project Wet provided by SRICD and ASRI respectively.
- See if any authority figure in the schools would be willing to start up an environmental or science club. This club could enhance the science curriculum with more hands-on activities like those offered by SRICD. It would also be beneficial for this group to publish a newsletter or add a column to the Middle School's current newspaper, educating the student body and

community of local environmental news, achievements, volunteer opportunities and applicable education and conservation tips.

### 3.4.3 Target Specific Areas and Issues

For specific sources of pollution identified in *Section 3.3.1*, implement the following:

- *Illicit discharge:* Consider an education program targeted to both landowners and contractors in Hopkinton regarding the nature of illicit discharges, their importance, and the consequences of failing to adhere to illicit discharge regulations. Proper septic system maintenance should also be discussed as a potential source of pathogens to local waterbodies. The Town should consider ways to deter illegal dumping at the locations identified.
- *Pet and domestic animal waste management:* An education program could be targeted to pet owners on the importance of proper disposal and collection of pet wastes. This can be accomplished by providing informational pamphlets to residents seeking dog licenses, through veterinarians, at pet supply stores, signs in public places such as parks, or through the general media.
- *Solid Waste Disposal:* An education program could be targeted to local residents and new builders or homeowners regarding proper waste disposal practices and outlining available waste disposal options (i.e., recycling and waste collection at the transfer station). This will be particularly useful for new homeowners located along a river or stream.
- *Construction Sites:* An education program could be targeted at developers who are proposing to work in the Town. The program could include educational packages and mandatory site meetings. The Town may want to consider partnering with a developer to create a program for future developments that provides guidance for development planning in relation to Hopkinton's specific resources and needs.
- *Turf Management:* Target proper turf management education at the potential polluting land uses surrounding water resources. Some pertinent educational materials are available through URI's GreenShare program. The Town should refer developers to URI's educational materials regarding turf management practices.

## 4 Public Participation and Involvement

### 4.1 State and Federal Regulatory Requirements

The objective of this minimum control measure is to encourage public participation in the Town's storm water program. The anticipated benefits of public involvement and the success of the program are: free intellectual and labor resources; greater support for programs operated by citizen volunteers; faster implementation of minimum control measures (such as illicit discharge detection); fewer legal challenges; and a potential measure of program success. Involvement can include participating in public meetings, providing legislative activism, developing and implementing BMPs, or becoming an educator. To satisfy the requirements of this minimum control measure, the Town must:

1. Comply with applicable State, Tribal, and local public notice requirements; and
2. Determine the appropriate BMPs and measurable goals for this minimum control measure.

To help municipalities comply with this minimum control measure, the Rhode Island Department of Environmental Management, Rhode Island Department of Transportation, and The URI Cooperative Extension Ad Hoc Committee have developed a Storm Water Education and Outreach Program. The Town of Hopkinton will continue to participate in this program and will have access to the resources necessary to develop educational and regulatory programs that meet this minimum control measure through the program's assistance.

### 4.2 Available Resources

*Appendix D* describes some of the organizations and programs that may help the Town implement the public participation component of its storm water program. Encouraging public participation in existing volunteer programs that are offered by local and regional groups can minimize the need for creating new programs and allow the Town to focus its financial and human resources on outreach and sponsorship for these programs. Continuation of these additional measures will remain at the Town's option as the Ad Hoc Committee program is designed to cover the public education measure in its entirety.

#### 4.2.1 Citizens Groups

The groups outlined in *Appendix D* may also provide opportunities for public involvement in a variety of watershed based or specific waterbody protection and clean-up projects. Some existing projects may help achieve Hopkinton's goals in their program with or without modification and, in some cases new programs may need to be established. Refer to *Appendix D* for a listing of groups and a summary of some of their current activities available to residents.

## 4.2.2 Local Media Resources

The local media can be a valuable asset to the Town of Hopkinton as part of their public education and outreach. The Town currently does not provide flyers or other education materials to the general public. *Appendix E* includes flyers that the Town may decide to make available at public facilities (e.g. Town Hall, library, visitor's centers, etc.), mail out to residents in property tax bills, or distribute with one of the locally distributed newspapers. Potential topics for educational materials include but are not limited to: waste management and trash removal to be distributed to Town residents, managing homeowner's septic tanks and private wells to be given out to new Town residents at the Town Clerk's Office, and protecting local waters to be distributed to new builders in the Town.

There are several available resources for newspapers and television including:

### **Southern Rhode Island Newspapers**

Southern Rhode Island Newspaper publishes *The Narragansett Times*, *The Charibo Times*, *The North Kingstown Standard Times*, *The Coventry Courier*, *The East Greenwich Pendulum*, *The Shore Times* and the *Kent County Daily Times*. These publications are all distributed in paper copies and electronically. The newspapers that service Hopkinton can serve as a vehicle for distributing information to the public about waste management, reducing storm water pollution, and animal waste management. This paper has an affiliate web page at [www.ricentral.com](http://www.ricentral.com).

The Southern Rhode Island Newspapers headquarters is located at 187 Main Street, Wakefield, Rhode Island 02879. For more information call (401) 789-9744.

### **The Westerly Sun**

*The Westerly Sun* is a main source of news and activities in Rhode Island's south county and southeastern Connecticut. This newspaper is published Monday through Friday afternoons and on Saturday and Sunday mornings. The paper also has an affiliate web page at [www.thewesterlysun.com](http://www.thewesterlysun.com) where interested persons can subscribe to an online subscription of the publication.

*The Westerly Sun* is published by the Sun Publishing Co. and is located at 99 Mechanic Street, Pawcatuck, CT 06379.

### **Town of Hopkinton Web Page – <http://www.hopkintonri.com/>**

The Town of Hopkinton created the web page to communicate with Town citizens, businesses, and visitors. The website contains helpful information regarding the Town history, government, meeting dates, times and agendas, employment opportunities, and special events. The Town calendar, contact information for Town officials, and other electronic links that Hopkinton residents may find helpful are also available.

This website could be an easy and cost-efficient way to notify the public about new Town programs and, could be used as a vehicle to educate the public about this SWMPP and its recommended educational topics.

## Rhode Island Statewide Interconnect

In the Cox Communications service areas in Rhode Island, you can watch Interconnect on Channel 13 (Channel A), 14 (Channel B) and 15 (Interconnect C). In the Verizon service areas in Rhode Island, you can watch Interconnect on Channel 32 (Interconnect A), 33 (Interconnect B), and 34 (Interconnect C). Interconnect C is assigned programming from governmental, municipal and academic producers and institutions around the State. It also carries live programming from the Rhode Island Statehouse, produced through Capitol TV. Interconnect B carries religious programming from around Rhode Island. Interconnect A is programmed with public access programs, and those that do not fall into the B and C designations. Information about statewide interconnect can be found at [00002po.previewcoxhosting.com](http://00002po.previewcoxhosting.com) or by contacting Cox Communications at (401) 383-7088 or Steve Martin, RI DPUC, at (401) 941-4500, ext. 131

## Cox 3, Cox Connection, and the RI News Channel (Cox Communications channels 3 – 5)

These three cable channels are available for local broadcast and to provide information to Hopkinton cable subscribers.

## Cox Communications Community Bulletin Boards

Community areas served by Cox Communications have the opportunity to promote non-profit, community events and services on Cox Channel 45. Cox Communications staff updates some of the Community Bulletin Boards; others are maintained by municipal employees in areas where equipment was donated to towns and cities. A submission can be made at <http://www.cox.com/cleveland/cox45/bulletinboard>. Contact Programming at 216-535-3389 or email [matt.fuller@cox.com](mailto:matt.fuller@cox.com) for more information.

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## 4.3 Engendering Public Involvement

Development of the SWMPP was performed by the Technical Advisory Committee for the SWMPP (TAC). The TAC consisted of members of the Town staff including Jim Lamphere (Town Planner), Tim Tefft (Director of Public Works), Matt Desmarais (GIS/IT Administrator), and staff from Fuss & O'Neill, Inc., the Town's consultant. Workshops were held with the TAC for the development of the SWMPP. The Town held a public meeting to review and adopt the plan as part of the October 7, 2013 Town Council meeting. Summaries of the TAC meetings and minutes of the October 7 Town Council meeting as well as a certificate of adoption are provided in *Appendix F*.

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## 4.4 Implementation Alternatives

The Town of Hopkinton, if regulated, would be mandated to comply with the Phase II Storm Water MS4 General Permit. To comply with this control measure, the Town must, at a minimum, conduct a public meeting on the Town's Phase II Storm Water MS4 General Permit program to allow citizens and opportunity to provide input on the program that is ultimately implemented by the Town. However, it is recommended that the Town expand its public participation program to take advantage of the

intellectual and labor resources of its citizens. Participation in the Ad Hoc Committee Program will help to accomplish this.

The items found in *Appendix D* may be implemented as resources become available, as the need arises, or if required to become part of the Phase II Storm Water MS4 General Permit program.

## 5 Illicit Discharge Detection and Elimination

Under this minimum control measure, the Phase II Storm Water MS4 General Permit requires a plan to detect and eliminate illicit discharges to MS4s. This includes a requirement to develop a storm sewer outfall map, a prohibition for illicit discharges, and an illicit discharge education and outreach initiative.

The following sections detail the Phase II regulatory requirements for this effort, the Town's existing programs and the proposed enhancements to the Town's existing programs to achieve Phase II Storm Water MS4 General Permit compliance.

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### 5.1 State and Federal Regulatory Requirements

Discharge from MS4s can be contaminated with wastewater from non-storm water sources. For example, sanitary sewage, process wastewater, floor drains and other wastewaters have been documented in MS4 systems throughout the country. A common impact is elevated levels of bacteria and pathogens as a result of improper sanitary connections. Sometimes this results from onsite wastewater treatment system (OWTS) treatment bypasses (e.g., straight pipes) discharging to a storm water system. These non-storm water discharges may be more common in areas where cesspools and high groundwater is prevalent.

The Phase II Storm Water MS4 General Permit defines these as "illicit discharges" pursuant to Rule 31(b), which states:

Illicit discharge means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a RIPDES permit (other than the RIPDES permit for discharges from the municipal separate storm sewer) and discharges from firefighting activities.

The Illicit Discharge Detection and Elimination (IDDE) Management Measure specifically requires the following:

1. Development of a storm sewer system map showing the location of all outfalls and the names and location of all waters of the state that receive discharges from those outfalls.
2. To the extent allowable under State, Tribal or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into your storm sewer system and implement appropriate enforcement procedures and actions.

3. Development and implementation of a plan to detect and address non-storm water discharges into the storm sewer system with appropriate enforcement procedures and actions.
4. Education for public employees, businesses and the general public regarding the hazards associated with illegal discharges and improper disposal of waste.

Some examples of waste sources that may result in illicit discharge if improperly handled include:

- Sanitary waste.
- Used automotive oil.
- Radiator flushing.
- Laundry discharge.
- Household hazardous waste.

The RIDEM regulations allow several categories of non-storm water discharges to an MS4. Allowable non-storm water discharges, provided they do not adversely impact water quality, are listed below:

- Discharges which result from the wash-down of vehicles at retail dealers selling new and used automobiles where no detergents are used and individual residential car washing.
- External, building washdown where no detergents are used.
- The use of water to control dust, firefighting activities, fire hydrant flushing and natural springs.
- Uncontaminated groundwater.
- Dechlorinated pool discharges.
- Air conditioning condensate.
- Lawn watering.
- Potable water sources including waterline flushing.
- Irrigation drainage.
- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled materials have been removed) and where detergents are not used.
- Discharges from foundation or footing drains where flows are not contaminated with process materials such as solvents, or contaminated by contact with soils where spills or leaks of toxic or hazardous materials have occurred.
- Uncontaminated utility vault dewatering.
- Dechlorinated water line testing water.
- Hydrostatic test water that does not contain any treatment chemicals and is not contaminated with process chemicals.

With the exception of the allowable discharges listed above, current RIPDES regulations prohibit non-storm water discharges to a storm sewer system without specific authorization from RIDEM in the form of a RIPDES permit. This is addressed in Rule 8 of the RIPDES regulations that prohibit any pollutant discharge to waters of the state without a permit.

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## 5.2 Outfall Mapping

The Town's GIS/IT Administrator manages the GIS database for the Town. Some of the town's catch basins, outfalls and drains have been mapped, but not all. See *Section 5.4* for the recommended outfall detection and mapping actions.

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## 5.3 Municipal Ordinances and Regulations

Section 21 of the *Hopkinton Code of Ordinances* regulates several activities relating to illicit discharges. All owners of premises within the Waste Water Management District are subject to this ordinance that regulates pumping of sewage disposal systems, septage disposal, improper discharge to septic disposal systems, acid and organic chemical septic additives, impervious surfaces, garbage disposals, and septic disposal system inspections in section 21. The Town has developed a draft (see *Appendix G*). This draft ordinance includes an explicit prohibition of non-storm water discharge to storm water systems, schedules of enforcement (e.g., penalties), and the authority to cause repairs should the owner fail to comply with a repair.

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## 5.4 Illicit Discharge Detection and Elimination Field Program

A proposed strategy has been developed to satisfy the following requirement under the Phase II Storm Water MS4 General Permit program (if necessary):

*Develop and implement a plan to detect and address non-storm water discharges into the Town's storm sewer system and implement appropriate enforcement procedures and actions.*

At least initially, it is recommended that the goal of this program not necessarily be to detect all illicit discharges, but instead to focus on identifying the discharges that may actually impact water quality within the community.

The development of an outfall mapping system as outlined in this plan will complete the initial step to detect non-storm water discharges by locating outfalls where there is a dry weather flow component.

While dry-weather flow could be groundwater infiltrating into the storm sewer, it is also potentially indicative of an illicit discharge. The following steps are recommended to determine whether observed flow comprises an illicit discharge and, if it does, to identify the source of the discharge.

- Inspect each outfall location (subject to the Town's ability to arrange for or provide access across private property as required) to document the following information on an outfall inspection report:
  - Observed dry weather flow (a digital photograph will be taken of each outfall),
  - Outfall size, material and condition,

- Approximate height of outfall above receiving watercourse,
- Name of watercourse receiving flow from outfall,
- Coordinate location as determined by GPS,
- Any additional outfalls observed during the outfall inspections,
- Any other observations of the outfall and/or surrounding area including, but not necessarily limited to, odors, sheen, stressed vegetation, coloration/staining, algae growth, sedimentation and/or scouring,
- Other parameters, such as flow measurements, as warranted.

At least 72 hours of dry weather will precede any fieldwork associated with this program. These inspections should occur during dry weather to better observe dry weather flows from outfalls that may be indicative of an illicit discharge.

In addition, each outfall will be numbered uniquely such that its data can be correlated with a location on the storm sewer base mapping to be developed. All collected data will be organized and reviewed by the person responsible for implementing this element of the program.

Where dry weather flow is observed, collect samples to be analyzed for pH, temperature, specific conductivity, ammonia, surfactants and fecal coliform. If the results of these analyses indicate that a potential illicit discharge exists, the up gradient drainage system will be examined to identify the extent of the system where that dry weather flow exists.

An outfall inspection report will be prepared to document the results of the investigations. This report will include the following:

- A cost estimate and work plan to further identify the source(s) of the dry weather flow observed.
- An opinion of construction cost to correct the anticipated problems

For those outfalls identified as having a potential illicit discharge, the Town will identify sources of that discharge. The recommended approach to accomplish this task is included in *Appendix H*.

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## 5.5 Targeting Program Activities

Hopkinton's water resources include impaired waters as well as a variety of unique and valuable habitat areas and recreational waters. The Town will consider the need to prioritize its illicit discharge control efforts to unique, impaired and valuable resource areas throughout IDDE program development and implementation. In these efforts targeted waterbodies should include waterbodies with TMDLs, waterbodies on the 303(d) list and other SRPW waterbodies that receive town storm water system discharges.

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## 5.6 Activity Tracking and Record Keeping

As part of program implementation, Hopkinton will consider the most appropriate way to track program activities and administrative actions. Consideration will include the following types of activities and actions:

- Mapping and outfall data collection.
- Outfall and catch basin inspections and cleaning.
- Tracing illicit discharges.
- Elimination and removal of illicit discharges.
- Administrative actions.
- Coordination with state agencies.
- Complaint receipt and disposition.

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## 5.7 Public Education

This following requirement under the Phase II Storm Water MS4 General Permit program is addressed in the public education best management practice recommendations.

*Inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.*

Hopkinton intends to rely on the Ad Hoc Committee program to develop public education materials for distribution regarding illicit discharges for its employees. The Town believes that this will provide adequate information regarding illicit discharges to its employees and allow for coordination between this management and the public education measure. In these efforts targeted waterbodies should include waterbodies with TMDLs, waterbodies on the 303(d) list and other SRPW waterbodies that receive town storm water system discharges.

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## 5.8 Recommendations

Although Hopkinton is not required to seek Phase II MS4 Storm Water General Permit coverage at this time, this plan was prepared to meet the regulations of the Phase II MS4 Storm Water General Permit. The Town has committed to complete those tasks that are included in the storm water management plan and schedule (*Appendix A*) in order to comply with the Phase II Storm Water MS4 General Permit when necessary. Below are recommendations that may assist in the completion of the committed tasks.

### 5.8.1 Mapping

The Town will map its outfalls. Mapping will include the following:

- Review existing municipal records, such as drainage mapping, storm drain mapping, aerial photography, orthophotos, and field surveys to identify known outfall locations in addition to

the location of all catch basins. Outfalls will be shown on a base map in order to provide general locations.

- Each outfall will be located by geographic positioning system (GPS).

## 5.8.2 Municipal Regulations

See *Section 5.3* for a discussion of the Town's waste water management district. The Town has drafted an illicit discharge prohibition ordinance and will consider adoption of it (see *Appendix G*).

## 5.8.3 Illicit Discharge Detection and Elimination Field Program

The recommended approach to identify the sources of the discharge(s) from any outfalls identified as having a potential illicit discharge is included in *Appendix I*.

The Town plans to inspect outfalls for dry-weather flow. If the Town identifies contaminated dry-weather flow, it will also consider a program to eliminate any sources of contamination through an illicit discharge detection and elimination program. Such a program will be based on RIDEM guidance<sup>3</sup> and good engineering practice. Generally speaking, this will include consideration of the need and/or appropriate approach for:

- Two dry-weather outfall surveys one over January 1 – April 30 and the other over July 1 – October 31.
- Identifying illicit discharges.
- Elimination and removal of illicit discharges.
- Record keeping of field program activities and administrative actions.

## 5.8.4 Targeting Program Activities

Hopkinton's natural water resources include impaired waters as well as a variety of unique and valuable habitat areas and recreational waters. The Town will consider the need to prioritize its illicit discharge control efforts to unique and valuable resource areas as part of its field program, which is to be developed during SWMPP implementation.

## 5.8.5 Activity Tracking and Record Keeping

As part of program development and implementation, Hopkinton will consider the most appropriate way to educate and identify responsible parties and track program activities and administrative actions.

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<sup>3</sup> During a storm water advisory committee meeting on May 23, 2013, RIDEM indicated that they would provide IDDE guidance to the Town.

### 5.8.6 Public Education

The Town intends to distribute public education materials regarding illicit discharges to its employees in coordination with distribution of similar materials to the general public. Target audiences among the public will include new developments and home owners.

### 5.8.7 Coordination with Other Programs

The DPW director will identify the appropriate contact or responsible party when an illicit discharge is detected within the Town but is from an MS4 outside the Town's jurisdiction. This may involve contacting the DPW director or an equivalent from a neighboring town. Follow-up contact will be conducted and documentation will be kept when needed to complete the tracking process. A referral will also be made to RIDEM.

## 6 Construction Site Storm Water Runoff Control

### 6.1 Requirements for Construction Site Storm Water Runoff Control

Construction activities have significant potential to impact surface water quality in the state by creating the potential for sediment, construction materials, waste and other pollutants to be transported to surface waters by wind or storm water runoff. As a result, the USEPA promulgated construction site runoff control regulations as part of its Phase I storm water permitting program. This program focused on projects that disturb more than five acres of land (total project). As part of this program, these projects were required to secure a RIPDES permit and prepare a detailed storm water pollution control plan (SWPPP) that specifies soil erosion and sediment control as well as waste and product management practices to control potential impacts.

Hopkinton is not required to seek Phase II MS4 Storm Water General Permit coverage at this time; however, this plan was prepared using Phase II MS4 Storm Water General Permit requirements as a guide.

RIDEM currently regulates activities that disturb more than one acre of land through the use of a general permit for the RIPDES program. The Phase II MS4 Storm Water General Permit requires submittal of a NOI to RIDEM and the preparation of a SWPPP that must be certified by a professional such as a professional engineer.

The Phase II Storm Water MS4 General Permit program that has been promulgated by the USEPA requires regulated municipalities to develop, implement, and enforce a program to reduce pollutants in storm water runoff to small MS4s from construction projects that result in a land disturbance of greater than or equal to one acre. Sites smaller than this would still require a permit if the land is part of a common plan, such as a subdivision, that alters a total area greater than one acre.

RIDEM or USEPA Region 1 office may designate small construction activities that disturb less than one acre of land if the activity contributes to a violation of water quality standards or for significant contribution of pollutants, such as total suspended solids (TSS), to any surface water. Currently, the Phase II Storm Water MS4 General Permit only requires regulation of one acre or more of land disturbance.

The specific state requirements for the Construction Site Runoff Control Minimum Measures are as follows:

1. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under state or local law.
2. Requirements for construction site operators to implement appropriate erosion and sediment control BMPs.
3. Requirements for construction site operators to control construction wastes, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastes at the construction site that may cause adverse impacts to water quality.
4. Requirements for construction site operators to develop and implement a Storm Water Pollution Prevention Plan SWPPP.
5. Procedures for site plan and SWPPP review which incorporate consideration of potential water quality impacts.
6. Procedures for receipt and consideration of information submitted by the public.
7. Procedures for site inspection and enforcement of control measures.
8. Procedures for coordination of local and state Construction permits and referrals of enforcement actions.

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## 6.2 Existing Municipal Ordinances

The Town has mechanisms that currently exist in the municipal *Land Development and Subdivision Regulations* and *Zoning Ordinance* with which the Town regulates construction site runoff. Copies of the existing ordinances are provided in *Appendix I* and should be referred to for detailed information on each of the ordinances.

Specifically, the Town of Hopkinton has established an ordinance planning and development under chapter 13.5 of its Code of Ordinances. As stated in section 13.5-70:

This development plan review ordinance shall apply to all permitted land uses of the Hopkinton Zoning Code except for single- and two-family dwelling structures and those structures erected on the same site and customarily incident and accessory thereto. No building permit may be issued for any building within the purview of this section, except in conformance with an approved site plan. No certificate of occupancy may be issued for any building not exempted from this ordinance unless the building is constructed or used, or the land is developed or used in conformity with an approved site development plan. Every application to the building inspector for a building permit shall be accompanied by a statement in writing from the town planner that the said plan meets all the specific applicable requirements of this ordinance.

Under chapter 13.5 Article III Hopkinton's Code of Ordinances states that "control must meet or exceed the standards of the *Rhode Island Erosion and Sediment Control Handbook*, prepared by the USDA Soil Conservation District and the Recommendations of the *Stormwater Management and Erosion Control Committee*, published by RI DEM, June, 1988." The Zoning Ordinance includes a requirement that applicants for special use permits, variances and other exceptions to by-right zoning, in part, must comply with the *Rhode Island Erosion and Sediment Control Handbook*.

Key elements *not* included in the Town's existing policies are:

- Regulatory requirements that meet the one-acre disturbed threshold for erosion and sediment controls. Land development enabling legislation does not provide support for a one-acre threshold. Another mechanism such as a soil erosion and sediment control ordinance should be used to achieve the desired threshold of applicability.
- Requirements for construction site operators to control construction wastes, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastes at the construction site that may cause adverse impacts to water quality.
- Requirements for construction site operators to develop and implement a Storm Water Pollution Prevention Plan SWPPP.
- Procedures for site plan and SWPPP review which incorporate consideration of potential water quality impacts.
- Procedures for site inspection and enforcement of control measures.
- Procedures for coordination of local and state Construction permits and referrals of enforcement actions.

## 6.3 Implementation Alternatives

The Town's *Land Development and Subdivision Regulations* include most components required for construction site storm water runoff control. However, some updates will be needed to fully address the Construction Site Storm Water Runoff Minimum Control Measure. The Town may adopt new ordinances as provided in *Appendix G*.

1. *Requirements for construction site operators to implement appropriate erosion and sediment control BMPs.*

The Town cites the *Rhode Island Soil Erosion and Sediment Control Handbook* as a standard, but it does not meet the required one-acre disturbance threshold. Land development enabling legislation does not provide support for a one-acre threshold. Another mechanism such as a soil erosion and sediment control ordinance should be used to achieve the desired threshold of applicability.

2. *Requirements for construction site operators to control construction wastes, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastes at the construction site that may cause adverse impacts to water quality.*

Current enforceable policy does not fully address management of construction wastes in accordance with the Phase II MS4 Storm Water General Permit. Recommendations to address this issue include developing a Soil Erosion and Sediment Control Ordinance requiring existing plans to include provisions for controlling wastes (such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastes at the construction site), and adopting new model ordinances as found in *Appendix G*.

3. *Procedures for site inspection and enforcement of control measures.*

Inspections oriented to soil erosion and sediment control both during construction and at the completion of the project are performed by the Director of Public Works or his representative. The following items are recommended to improve the inspection and enforcement of soil erosion and sediment control process:

- Develop a standard inspection frequency based on disturbance threshold or site complexity. Each site should be inspected at least three times—initial, interim, and final.
- Prioritize inspections based on the scale of the construction project, sensitivity of nearby water resources, an approved construction phasing schedule, or potential impacts as determined by the scope of the project in order to conserve the need for inspectors.
- Require that developers, subcontractors, and the building official are present at all pre-application meetings.
- Develop a checklist to assist inspectors with identifying and documenting deficiencies in construction site BMPs for soil erosion and sediment control BMPs. Checklist forms for common BMPs may be developed early and modified based on comments provided by inspectors and office personnel. Checklists for less common BMPs and new technologies can be developed with

experience, educational training, and governmental agency and manufacturer guidance. See *Appendix J* for the recommended ordinance.

- Develop a database to track progress of construction, complaints and inspections. Ideally, this should be an electronic database.
- Refer non-compliant construction site operators to RIDEM Office of Compliance and Inspection when the Town's enforcement is not adequate. Follow up with written documentation when deemed necessary.

## 7 Post-Construction Site Storm Water Runoff Control

### 7.1 Requirements for Post-Construction Site Storm Water Runoff Control

New development and redevelopment projects have significant potential to increase pollutant loadings to receiving surface waters. These pollutants include suspended solids, nutrients, organics, metals as well as physical impacts such as increases in temperature. The USEPA Phase I Storm Water permitting program did not specifically address the post-development impacts from land development that were not classified as “industrial activities,” and the RIPDES *General Permit for Storm Water Discharges Associated with Construction Activities* does include requirements for “post-construction storm water management” (Section IV.E.2.b). While requirements for post-construction management are not specifically detailed in the Phase II MS4 Storm Water General Permit, it does require that the SWMPP prepared for the site include “a description of measures that will be installed during the construction project to control pollutants in storm water discharges that will occur at the site after the construction operations have been completed.” Measures in a MS4 Phase II Storm Water program must ensure that controls are in place that would prevent or minimize water quality impacts.

Measures in a Rhode Island MS4 Phase II Storm Water must include the following elements:

1. Strategies, which include a combination of structural and/or nonstructural BMPs appropriate for the community.
2. An ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law.
3. A process for site plan review to ensure that design of controls addressing post-construction runoff are consistent with the *Rhode Island Stormwater Design and Installation Manual* (as amended).
4. An ordinance or other regulatory mechanism to ensure adequate long-term operation and maintenance of BMPs.

5. Strategies to reduce runoff volume by encouraging infiltration of non-contaminated runoff, minimizing impervious surface areas, encouraging sheet flow, and establishing buffers along waterbodies.
6. Procedures for coordination of local and state post-construction storm water management in referrals for enforcement actions as well as in permitting for new developments and redevelopments.

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## 7.2 Existing Municipal Ordinances

The Town has mechanisms that currently exist in the municipal *Land Development and Subdivision Regulations* and *Zoning Ordinance* with which the Town regulates construction site runoff. Copies of the existing ordinances are provided in *Appendix I* and should be referred to for detailed information on each of the ordinances.

Specifically, the Town of Hopkinton has established an ordinance planning and development under chapter 13.5 of its Code of Ordinances. As stated in section 13.5-70:

This development plan review ordinance shall apply to all permitted land uses of the Hopkinton Zoning Code except for single- and two-family dwelling structures and those structures erected on the same site and customarily incident and accessory thereto. No building permit may be issued for any building within the purview of this section, except in conformance with an approved site plan. No certificate of occupancy may be issued for any building not exempted from this ordinance unless the building is constructed or used, or the land is developed or used in conformity with an approved site development plan. Every application to the building inspector for a building permit shall be accompanied by a statement in writing from the town planner that the said plan meets all the specific applicable requirements of this ordinance.

Under chapter 13.5 Article III Hopkinton's Code of Ordinances states that "control must meet or exceed the standards of the *Rhode Island Erosion and Sediment Control Handbook*, prepared by the USDA Soil Conservation District and the *Recommendations of the Stormwater Management and Erosion Control Committee*, published by RI DEM, June, 1988." The Zoning Ordinance includes a requirement that applicants for special use permits, variances and other exceptions to by-right zoning, in part, must comply with the *Rhode Island Erosion and Sediment Control Handbook*.

Key elements not included in the Town's existing policies include:

- Strategies, which include a combination of structural and/or nonstructural BMPs appropriate for the community. The Town includes a reference to the *Recommendations of the Stormwater Management and Erosion Control Committee*; however, this document was superseded by the 1993 *Rhode Island Stormwater Design and Installation Standards Manual*. The manual was then updated in 2011, which, in part, added low impact development (LID) and other green infrastructure approaches. The Town should reference the manual "as amended" in order to remain current.

- An ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law. Existing ordinances address design of BMPs only, and do not address ongoing operation and maintenance. As mentioned above, the design standard referenced is outdated.
- A process for site plan review to ensure that design of controls addressing post-construction runoff are consistent with the *Rhode Island Stormwater Design and Installation Standards Manual* (as amended).
- An ordinance or other regulatory mechanism to ensure adequate long-term operation and maintenance of BMPs.
- Strategies to reduce runoff volume by encouraging infiltration of non-contaminated runoff, minimizing impervious surface areas, encouraging sheet flow, and establishing buffers along waterbodies.
- Procedures for coordination of local and state post-construction storm water management in referrals for enforcement actions as well as in permitting for new developments and redevelopments.

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## 7.3 Implementation Alternatives

The following discussion presents implementation alternatives for the Town.

1. *Develop and implement strategies that include a combination of structural and/or non-structural BMPs appropriate for the community.*

Currently, post-construction BMPs are proposed by developers and their engineers and reviewed by the Town during the development plan review process. No formal requirements or strategies on BMPs currently exist that would provide guidance to Town staff. The Town plans to require pre-application meetings to facilitate development in accordance with Town policies and regulations but make a provision to require developers, main subcontractors, and the Building Official attend pre-application meetings in addition to other regular attendees.

2. *Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law.*

Existing regulations do not address a number of storm water issues which are part of compliance with the Phase II Storm Water MS4 General Permit requirements such as planning and design standards for BMPs. The Town should develop a post-construction storm water ordinance, which addresses the key elements discussed, above, in *Section 7.2*. A draft ordinance for the Town has been provided in *Appendix G*.

3. *Ensure adequate long-term operation of BMPs.*

Existing regulations do not include provisions to ensure adequate long-term operation of privately owned BMPs. As a result, the following recommendations are made if required to comply with the Phase II Storm Water MS4 General Permit.

- Develop a program to identify existing structural BMPs with a goal of ensuring long term operation and maintenance of the BMPs.
- Require long-term operation and maintenance of all storm water facilities in an enforceable post construction policy (i.e., an ordinance). The enforceable policy should require annual inspection and maintenance reporting from BMP owners, recording storm water operation and maintenance plans in land evidence with the property's deed, and agreements that allow the Town to perform emergency maintenance at the expense of the BMP owner.
- Require that all maintenance and inspection records be available to a designated official or equivalent entity trained in storm water controls, up request for review. Require that the records be maintained for a certain period of time (a suggested period of time is 5 years).
- Consider developing a program to identify existing storm water structural BMPs. This identification process should be coordinated with activities of IV.B.6.b.1.i. Additional BMP guidance is provided in *Appendix K*.

4. *Ensure minimization water quality impacts.*

- Prioritize sites of concern and include those sites in periodic inspections (a suggested frequency is once every year) to ensure proper maintenance of implemented BMPs.
- Review existing Town policy for potential conflicts with low impact development. Specifically, focus on subdivision and zoning policy. Recommendations to remove these conflicts should be documented. The intent is in part to make local policy consistent with state policy in the *Rhode Island Stormwater Design and Installation Standards Manual* (RIDEM, 2011 or as amended).

New industrial discharges proposed to discharge to the storm drain system will be referred to the RIPDES program for review and approval. Procedures will be developed in compliance with the RIPDES program.

## 8 Pollution Prevention and Good Housekeeping

### 8.1 Facility /Site Walkovers

Information for this plan was gathered from a series of interviews held at each department's offices and through several telephone conversations. During the interviews, several site walkovers were conducted and it was found that the facilities for the Public Works Department, Police Department, Recreation Department and Animal Control Departments were in satisfactory condition. Recommendations for improving these facilities follow in *Section 8.9*. Implementing these recommendations will result in an improved pollution prevention/good housekeeping element of the Town's SWMPP.

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## 8.2 State and Federal Regulatory Requirements

This element of the SWMPP has two goals. The first is to minimize the pollutants that enter the MS4 prior to being discharged to surface waters of the state. This would consist of pollutants from land uses that drain to Hopkinton's MS4 as well as those pollutants that are swept from municipally owned streets, parking lots, and facilities such as the Charles Niles Public Works Complex. The second is to minimize pollution caused by activities at municipal owned facilities such as storage of materials and wastes where they are exposed to precipitation.

The Phase II Storm Water MS4 General Permit program requires regulated municipalities to develop a pollution prevention/good housekeeping element that achieves the above referenced goals. This element largely consists of properly maintaining existing infrastructure such as roads and drainage structures as well as implementing appropriate pollution prevention practices at municipal facilities. Specific regulatory requirements for this element of the storm water pollution prevention plan are:

1. Develop and implement an operation and maintenance program with the goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system; and
2. Include employee training on incorporating pollution prevention/good housekeeping techniques into municipal operations such as landscaping, car and truck fleet maintenance, building and public works yard maintenance, new construction, land disturbances, and storm water system maintenance. Training materials available from the EPA and RIDEM may be used to assist with this task.

The Town currently implements a street and drainage system maintenance program with the goal of minimizing the pollutants that discharge from their MS4. Information regarding these current practices and responsibilities for pollution prevention and good housekeeping were obtained from questionnaires and personal interviews with staff from the DPW, Police, School, Parks & Recreation and Animal Control Departments. The following summarizes the pollution prevention and good housekeeping techniques and policies employed by the Town.

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## 8.3 Department of Public Works (Highway, Vehicle Maintenance, Building Maintenance & Transfer Station)

The Department of Public Works (DPW), and all of its divisions (highway, equipment maintenance, buildings & grounds maintenance), is located at the Charles Niles Public Works Complex, 395A Woodville Road. This site houses a five bay maintenance garage building with adjoining offices, a gasoline/diesel fuel dispensing station with two-compartment double-wall aboveground fuel storage tank (AST), paved vehicle parking areas, covered cold mix asphalt pile, , backhoe, tractor mower and various miscellaneous equipment stored on paved and gravel areas. Salt and sand is kept inside. There are 3 sanders stored outside on a paved parking area. The parking lot consists of an asphalt concrete

pavement and is connected to Woodville Road by two paved driveways. Storm water runoff generally flows into the abutting roadway and grasslands, therefore, this facility does not require an individual permit or storm water pollution prevention plan.<sup>5</sup> The facility is served by well water and an individual septic system.

Mr. Timothy Tefft, Director of Public Works, currently oversees all DPW operations.

### 8.3.1 Public Street and Parking Lot Sweeping

Pavement sweeping is performed on all public streets and parking lots, by a street sweeping machine owned and operated by the Town. There is no prioritization of roads or parking lots since all streets receive the same rate of sanding during winter season. They are swept once per year right after the winter season and on an as-needed basis thereafter. Sweeping typically starts in April and ends in August. Pavement deficiencies and necessary repairs are noted during sweeping and turned in to the Public Works Director at the end of the shift. All sweeping operations are conducted during the normal workday, 7:00 a.m.-3:00 p.m., Monday through Friday.

There are no parking bans in effect in the Town of Hopkinton since most residential and commercial facilities have off-street parking; however, occasionally street sweeping flyers/notices are distributed to residents on certain streets in the Hope Valley neighborhood where there is on-street parking. Streets are swept based upon the amount of sediment on the street. At any time, the public can contact the DPW to report streets that may need to be swept. During sweeping the sweepers' water tank is filled from local ponds, rivers or wells.

Public streets, playgrounds and municipal and school parking lots are swept using a 1996 Athey mobile sweeper. There is no tracking of the volume or weight of the sweeper tailings or of curb miles swept however a list is kept of the swept streets. The Town maintains approximately 76.5 lane miles (153 gutter miles) while the state of Rhode Island maintains 48 lane miles and another 20.5 lane miles are maintained by private entities. The sweeper tailings are stored in a pile in a gravel area and are sometimes mixed with clean materials and reused for cover material, for backfill material and/or for gravel road base.

### 8.3.2 Storm Water System Inspection and Cleaning

Hopkinton's storm water drainage system consists of catch basins connected to retention basins, leaching catch basins with minimal interconnection, water quality swales and ditches. To the knowledge of the Town, none of the surrounding MS4s tie into the storm water system. The storm water system on state-owned roadways is owned and maintained by the state of RIDOT. Wastewater management in Hopkinton is limited to the use of OWTs. There is no written program on how to check for illegal connections and DPW employees are not trained to report or detect these flows/connections to the

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<sup>5</sup> The DPW director has developed an informal storm water pollution prevention plan and spill prevention, control and countermeasure plan as a best practice although existing regulations do not require either plan.

storm water system. The DPW indicated that illicit connections, illicit discharges and/or dry weather flow have not been found in the last few years.

New construction and development is regulated by the Building & Zoning Department. Construction work affecting the Town's roadways requires the permission in writing from the Town Council. In order to connect to Hopkinton's municipal separate storm sewer system (MS4), a site plan must be submitted to the Town Council. The applicant must inform DPW when the work commences so the site can be inspected. Typically, a DPW inspector performs an inspection prior to backfill. No permits have been issued in the past three years.

The DPW does not currently retain the right to prevent any connections to its storm water system and is not aware of any required permits for dewatering procedures. The water is simply pumped to outside of the dewatered area. Water pumped out of a catch basin during maintenance is discharged along with the excavated sediment.

There are about 290 catch basins throughout the Town, which are maintained by the DPW. These are cleaned approximately once per year or as needed when municipal staff observe flooding problems or when calls are received from the public requesting maintenance. The Town owns one 2012 Stetco bucket-type catch basin cleaner truck. Catch basins that are known to receive larger volumes of runoff or are adjacent to unpaved areas with high erosion are given priority for inspection and cleaning. Often these catch basins are cleaned more frequently. The sediment collected during catch basin cleanings is recycled by adding it to clean gravel and stone to make process for gravel roads. The quantity of sediment collected is not tracked.

Storm drain outfalls are not typically inspected for erosion nor do they receive preventative maintenance. The DPW corrects problems resulting in sinkholes or as they are reported either by residents or by staff cleaning catch basins or performing other duties in that area. The DPW, using in-house staff, is responsible for repairing storm drains, manholes, catch basins, etc. If an erosion problem is noted, corrective measures are taken, including asphalt berm/swale, rip rap, seeding and/or hay bales.

According to the DPW, there are about 17 detention basins and three swales that are overseen by the Town. Some are maintained by homeowners associations and the rest by the Town. These mostly receive storm water runoff from subdivision complexes and multi-unit complexes. The detention basins receive minimal maintenance work. The majority of their maintenance work includes cleaning the outfalls if needed, removing/cutting of brush when the pond is dry and replacing rip-rap.

The RIDOT and the Town of Hopkinton do not usually coordinate their efforts but have a good working relationship. If an issue with the state storm water system is noted, such as a clogged catch basin, the DPW reports it to RIDOT who is responsive in correcting the problem. The state maintains the storm water systems on state controlled roadways. The Town has two (2) catch basins that discharge onto state roads. State roads in Hopkinton include Alton-Bradford Road (S.R. 91), Arcadia Road, Ashaway Road (S.R. 216), Bank Street, Bridge Street, Camp Yawgoog Road, Clarkes Falls Road, Ext. 184, Grantville Extension, Gray Lane, High Street (S.R. 216), I95 and Off Ramps, Laurel Street, Main Street (S.R. 3), Mechanic Street, Spring Street (S.R. 138), Wellstown Road, Wincheck Pond Road, Wincheck Pond Rd. Extension and Woodville Road.

### 8.3.3 Winter Road and Lot Maintenance

During winter months, snow removal is conducted by the DPW at town-owned buildings, parking lots and all Town roads. There is no written policy on how deicing materials are applied; however, hills, corners and intersections receive the largest amounts of attention. The primary material is a sand and salt mixture that does not contain any additives. The DPW applies approximately 370 tons of salt and 370 tons of sand annually on an as-needed basis dependent on the specific weather conditions. Town roads are first treated with a 1:1 sand/salt mix as soon as snowfall begins and later plowed as necessary. The mixture spreaders on two of the large trucks used by the Town are hydraulic and use speed dependent applicators that are calibrated by the drivers. The others large trucks have salt spreaders that have independently powered applicators that dispense material at a constant speed. The smaller trucks are straight plows only. Since a specific truck is assigned to a specific district each year, streets within given areas receive the same rates of treated mix each year.

For purposes of winter snow and ice operations, the town is divided into eight districts to which a single driver and large truck is assigned for the winter season. Four smaller trucks are available if additional assistance is needed in any of the districts. The DPW does not utilize independent or private contractors to assist the Town crews in snow removal or deicing operations. The DPW and the police department are responsible for calling a parking ban if needed in a snow emergency. Typically, any snow accumulation initiates the application of deicing material. All plowed snow is deposited at the edges of the streets and parking lots. After the snow melts from these piles the leftover sediment is left on the street.

Deicing materials are purchased from the vendor who was awarded the RIDOT bid. MSD sheets, for the salt and sand, are kept by the Director of Public Works. Sand and salt piles are kept indoors at the DPW facility year long. The piles are checked regularly and new materials are purchased as needed during the winter months. The Highway Division keeps a record of each storm, Snowstorm Report, to track the amount of material used.

The Town examined the use of brine and found that initiation of a brine program would cost approximately \$80,000. This was determined to be cost prohibitive for the foreseeable future.

### 8.3.4 Illegal Dumping and Solid Waste Removal and Handling

The Town of Hopkinton does not provide any curbside refuse or recycling collection to its residents and does not have a residential collection center where residents, can dispose of their waste. Residents having yard waste, solid waste, recyclables, used clothing, metals, construction debris, tires, batteries, used motor oil and filters, hazardous waste, etc. can dispose of them at the neighboring communities of Richmond and Westerly. The Town has an agreement with these towns to accept solid waste generated by the residents of Hopkinton. Waste volumes are not tracked and reported to the DPW office, the treasurer or the Town Council. Except for used motor oil, all wastes generated by the Town Department operations are hauled to Rhode Island Resource Recovery Corporation (RIRRC) facility in Johnston, Rhode Island. by a Town contracted private vendor. Recyclables, batteries, oil and fuel filters

are hauled, by the DPW, to the Westerly landfill. Waste tires are hauled to the Central Landfill by the DPW and waste antifreeze is removed periodically by a private vendor. The used motor oil is given to a sawmill company for reuse as heating oil.

The highway division is responsible for litter clean-up along town roads, whereas RIDOT is responsible for state roads and RIDEM for roads within the state parks system. The DPW indicated that the state is usually responsive when called. Litter collected by Town staff is placed in a dumpster at the DPW complex and disposed of at the Central Landfill weekly.

There are a few areas where illegal dumping occasionally occurs. DPW indicated that this is not a chronic problem and that if it does occur the items include mattresses, TVs and other household furniture. The worst area is the Palmer Circle cul-de-sac. The Town has not installed signage to discourage illegal dumping activities. Signs prohibiting littering (State fine of \$500) were found at various locations in Langworthy Field Park. The Hopkinton Police Department is responsible for monitoring, reporting, and enforcing this law and the DPW is contacted by the police if any clean-up is necessary.

### 8.3.5 Hazardous Materials Handling and Storage

The highway garage generates and controls a significant portion of the municipal hazardous waste generated in Hopkinton, due to the nature of facility operations. The vehicle maintenance portion of the Highway Garage is discussed in more detail in *Section 8.3.7*.

The Town does not have a household hazardous materials collection program. Hopkinton residents can dispose of their used motor oil, oil filters, batteries and anti-freeze at collection centers in the neighboring communities of Westerly and Richmond.

### 8.3.6 Tree Management

The Town has a tree warden, Mr. Scott Ahern who oversees tree management in Hopkinton. The Tree Warden is appointed by the Town Council. There is currently no tree ordinance in place limiting what residents can cut down. In 2012 about 25 trees were removed, of which two were healthy trees that impeded roadway visibility. DPW is responsible for tree removal and pruning on Town property. The DPW does not cut healthy trees unless public safety is being compromised. About 25 trees were pruned in 2012 due to blocking street signage and proximity to the traveled way that may compromise public safety.

### 8.3.7 Fleet Vehicle and Equipment Maintenance

The highway garage, located in the Charles Niles Public Works Complex at 395 Woodville Road, operates as the central municipal services garage for all Town vehicles. Maintenance and repairs of all municipal vehicles are performed indoors at the highway garage. This includes vehicles and equipment operated by the public works, police, recreation and animal control departments. All major repairs are also performed in-house. New and waste automotive fluids are stored indoors in marked 55-gallon

drums and a 300-gallon metal tank. A sawmill currently removes the waste oil for reuse as heating oil; used fuel/oil filters are recycled at the Westerly landfill. The garage has two service bays, each approximately 15 feet wide by 65 feet long. The other three bays are used for vehicle/equipment storage. The DPW fleet includes five pickup trucks, seven big dump trucks, one payload, two backhoes, two tractor riding lawnmowers, one catch basin cleaning truck, one street sweeping truck, one mobile fuel supply truck and miscellaneous equipment. The garage bays do not have trench drains. The DPW employees inspect and clean the floor on an as-needed basis and have been instructed not to dump anything on the floor. Only incidental water/fluids are cleaned since vehicles are not washed in these bays.

Police and Animal Control vehicles are washed offsite at a commercial car wash facility in Westerly while DPW vehicles are washed outside in the yard, with clean water only. There are no catch basins on the site and vehicle wash water drains into the surrounding grasslands. Fuel is stored and dispensed onsite from a dual compartment aboveground storage tank (AST), with a 3000-gallon unleaded gasoline compartment and a 3000-gallon diesel compartment. There are also two 500-gallon propane ASTs and one 300-gallon and a 1000-gallon heating oil ASTs at the highway garage.

In addition to the highway garage, lawn mowing equipment is stored at the Parks & Recreation facility Crandall House, at 188 Main Street. The storage building at Crandall House is approximately 40 feet by 40 feet in size and contains equipment as well as a partially filled 300-gallon heating oil tank.

### 8.3.8 Building Maintenance

DPW provides building maintenance services to all the Town's municipal buildings including general upkeep, painting, custodial services, plumbing and electrical maintenance. A list of the buildings is as follows:

- DPW Complex, 395A Woodville Rd. (i.e. the highway garage)
- Police Station, 406 Woodville Rd.
- Animal Control, 395B Woodville Rd.
- Thayer House, 482 Main Street.
- Town Hall, 1 Town House Rd.
- Crandall House, 188 Main Street.

Supplies consisting of soaps and some chemicals, such as cleaning agents, are stored in custodial supply rooms in most of the buildings. These are ordered as needed and stored in up to 5-gallon containers at the DPW complex and in less than one-gallon containers at the other buildings. Some of these chemicals include bleach, wax, ice melt and water based paint. Reportedly, the municipal buildings do not have floor drains except Animal Control and police station. These are to be found in the restrooms and are connected to individual septic systems.

The Building Maintenance division does not wash any of the Town's municipal buildings. There have not been major upgrades or additions to the Town's buildings in several years.

### 8.3.9 Storm Water Pollution Prevention Plan (SWPPP)

The Hopkinton DPW has written an informal SWPPP as a best practice. Discharge from the DPW is by overland flow and it does not appear that a SWPPP is required for RIDEM regulatory purposes at this time. The SWPPP is attached in *Appendix L*.

### 8.3.10 Spill Prevention Control and Countermeasures Plan (SPCC)

The Hopkinton DPW has written an informal SPCC plan. The plan has not been submitted for RIDEM approval as an SPCC does not appear to be a requirement for this site. The SPCC is attached in *Appendix L*.

### 8.3.11 Spill Response

Spill reporting procedures were not posted at any of the maintenance facilities. Spills that have occurred at the vehicle maintenance bays are minimal in nature, and typically require about one handful of speedy-dry which can be disposed as regular garbage. The Fire Department Hazmat Team is available to handle significant spills and a private vendor, such as Marshall Environmental or Clean Harbors, can be called if necessary. Additionally, three spill kits and speedy-dry are stored at the highway garage facility, the Recreation building and on the mobile fuel truck, for incidental spills.

### 8.3.12 Personnel Training Program

There is no specific spill or storm water pollution prevention training for those working at the highway garage. The Director of Public Works has reviewed the SWPPP and SPCC with the DPW staff. All employees are OSHA certified for construction site safety operations. Training of personnel is limited to periodic attendance, by certain staff, at off-site programs offered by RIDEM (such as West Nile and EEE mosquito abatement) and RIDOT T2 seminars (such as Dig-Safe, Backhoe and Chainsaw operations/procedures.)

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## 8.4 Parks and Recreation Department

The Parks & Recreation maintenance functions are performed by the DPW. The DPW maintains the equipment, ball fields, parks, municipal buildings and grounds throughout the Town. A list of the parks and recreational facilities is as follows:

- Langworthy Field, Locustville Rd, Hope Valley, 3.7 acres
- Briggs Park, High St, Ashaway, 4 acres
- Polish Park, Mechanic St, Hope Valley, 0.25 acre
- Crandall House Recreation Facility, 188 Main St, Ashaway, 60 acres

The Director of the Department of Parks & Recreation is Ms. Mary Sawyer.

There is a program to monitor all leagues and uses of the facilities. With the exception of small group activities, applications are required to schedule use of the Town's facilities. The Parks and Recreation Department regulates and schedules the use of these facilities and does not allow vehicle washing for fund raising events. Landscaping equipment and materials are stored in two buildings at Crandall House, 188B Main Street and at the Charles Niles Public Works Complex on Woodville Road. There are no floor drains in these storage locations. The materials, tools and all equipment are stored inside year long. Runoff, from roofs and paved surfaces, flows into the surrounding grass.

#### 8.4.1 Vehicle Maintenance

The Recreation Department equipment consists of one push-lawn mower, four weed whackers, three rider mowers, two tractor mower, one boom brush mower and miscellaneous attachments. Routine maintenance, heavy vehicle/equipment maintenance and washing are conducted at the DPW garage at 395 Woodville Road. The storage building at Crandall House is approximately 40' x 40' containing tractors, motorized asphalt roller and miscellaneous equipment, partially filled 300-gallon heating oil tank. MSD sheets are kept on file at the director's office.

#### 8.4.2 Cutting and Clearing

Grass mowing is performed by the DPW staff, once a week on average during the main cutting season (April – November). Grass clippings and leaves are left in place (natural recycling) and tree limbs and brush are piled up and disposed of at the Westerly landfill.

#### 8.4.3 Fertilizer and Pesticide Application

The Town does not use fertilizers or pesticides.

#### 8.4.4 Solid Waste Removal and Handling

The DPW staff collects trash from full trash receptacles (open 55-gallon drums) located throughout the operated grounds, daily. Trash is taken to the dumpster at the DPW Complex and subsequently disposed of at the Central Landfill. The DPW performs daily litter pick-up at sites throughout the Town. Sometimes litter is picked up twice a day during the peak summer season.

#### 8.4.5 Cemeteries

The town does not maintain any cemeteries; subsequently, the impacts of storm water runoff and good housekeeping are not included in this report.

#### 8.4.6 Grounds Maintenance

The roofs on most of the buildings do not have gutters and runoff flows into the adjacent grass areas. Storm water runoff generally percolates into the unpaved parking lots and driveways and/or flows off

site into adjacent grasslands. The paved driveways and paved parking lots are mechanically swept by the DPW whenever they are sweeping that section of Town or as requested from time to time.

Garbage is collected from trash receptacles in the buildings and on park grounds several times daily by the Public Works employees. It is then brought to the dumpster at the Crandall House. Snow plowing is performed by the DPW and the snow is piled at the edge of the parking lot, driveways and roads.

#### 8.4.7 Spill Response

There are no written procedures or plans for the storage of hazardous materials. The Recreation Department has a spill kit on site at Crandall House for containment of small spills. Larger spills would be reported to the Fire Department Hazmat Team for their handling and a private vendor such as Clean Harbors could be called.

#### 8.4.8 Personnel Training Program

There is no specific spill or storm water pollution prevention training for the Parks and Recreation Department employees except for the SWPPP generated in-house by the DPW Director; since the DPW oversees the maintenance of buildings and grounds this element is deferred to the DPW.

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### 8.5 School Department

There are two elementary schools in Hopkinton, overseen by the Chariho School district:

- Ashaway Elementary School, 12A Hillside Avenue, Ashaway
- Hope Valley Elementary School, 15 Thelma Drive, Hope Valley

Mr. Gary Perrotta, Director of Buildings and Grounds for the Chariho Regional School District, oversees maintenance of all schools.

The Public Works Department provides street sweeping and snow plowing services to only the elementary schools' access roads and parking lots. The School Department is part of the Chariho Regional School District and does not operate as part of the Town thus the impacts of good housekeeping on storm water runoff are not included in this report.

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### 8.6 Fire Department

The Town of Hopkinton is divided into two volunteer fire districts:

- Station No.1 - Ashaway Volunteer Fire Association, Inc., 213 Main St, Ashaway
- Station No.2 – Hope Valley-Wyoming Fire District, 996 Main St, Hope Valley

The Fire Chief for the Ashaway District is Chief Michael Williams and for Hope Valley is Chief Fred Stanley.

Because the Fire Department is an autonomous agency, the impacts of pollution prevention/good housekeeping, on storm water runoff, are not included in this report.

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## 8.7 Police Department

The Town's police station is located at 406 Woodville Road, and is operated by the Hopkinton Police Department. The Main Headquarters building contains various offices, a cell block comprising of three holding cells for temporary detention of arrested individuals and a fifteen foot by twenty-five foot single-bay Sallyport, where prisoners disembark from the transport vehicle. The rest of the site includes a paved 35-space parking lot and landscaped areas.

Chief Davit Palmer currently oversees the operations of the Hopkinton Police Department.

### 8.7.1 Vehicle Maintenance

All police vehicles (approximately fifteen sedans, two Humvees and a four by four all-terrain vehicle) are maintained by the DPW; subsequently, there is no storage of automotive chemicals at the police station. Unleaded fuel for the vehicles is obtained from a single pump dispenser (a 3,000 gallon AST) located at the DPW Complex. Storm water runoff flows from the paved driveway and parking areas to the adjacent grassland and dry retention pond; roof drains discharge runoff to adjacent landscaped areas.

The building has one floor drain in the custodial room, one in the mechanical room, four in the cell block, and one in each the men's and ladies' bathrooms.. There is no record to indicate where the floor drains are connected to; however it is assumed they are connected to the OWTS.

Vehicles are washed at a commercial car washing facility in Westerly.

### 8.7.2 Spill Response and Personnel Training

There are no stored hazardous materials on-site except small quantities of custodial cleaning supplies, a 1,000-gallon propane tank, and a 500-gallon diesel tank. Though there are no written procedures or personnel training on pollution prevention/remediation, the Fire Department Hazmat Team is contacted for spills or hazardous conditions on the site, on roadways and at other municipal facilities. In these circumstances, the police department secures the accident scene, to avoid cross contamination by the public, and the police officer will remain on site until cleanup has been completed.

### 8.7.3 Grounds Maintenance

The roof drains discharge to the adjacent grassland. The driveways and parking lots are mechanically swept by the DPW from time to time. The dumpster is emptied weekly by a contractor. Snow plowing is performed by the DPW as needed. The snow is stockpiled at the edge of the parking lots and driveways and the grass clippings are left in place.

## 8.8 Animal Shelter

The Town's animal shelter is located at the Charles Niles Public Works Complex at 395B Woodville Road. The site consists of a building that houses the animals and an office, paved driveway, parking area and landscaped areas. There are roof gutters which discharge to the adjacent pervious areas. There are no catch basins and storm water runoff generally flows into the abutting woodlands. The facility is served by well water and OWTS.

Ms. Terry Main is the Town's Animal Control Officer and oversees the operations of the department.

Supplies consisting of animal foods and chemicals, such as cleaning agents, are ordered as needed and stored in less than one-gallon containers. Some of these chemicals include soap, germicidal detergent (one-gallon bucket), bleach and Ajax for cleaning litter boxes, feeding bowls and kennels. Water-based paint is also stored at this facility. All of these materials are stored inside the building. The building has two floor drains where wash water from the kennels is drained. There is no record to indicate where the floor drains are connected; it is assumed to be connected to the sewer system or OWTS.

### 8.8.1 Vehicle Maintenance

The department has only one vehicle, a covered pickup truck, which is maintained by DPW equipment maintenance staff. No vehicle fluids are kept at the site.

The vehicle is washed at a commercial car washing facility in Westerly.

### 8.8.2 Spill Response and Personnel training

If necessary, cat litter, which is stored onsite, is used to contain spills and is disposed of with the regular garbage (typically a dustpan amount). Though there are no written procedures or personnel training on pollution prevention or remediation, the Fire Department Hazmat Team is contacted for larger spills or hazardous conditions on the site. Though there are no written procedures or plans for the storage of hazardous materials (waste oil, fuel, paint, etc.), the chemicals storage area is well organized, ventilated and locked, ensuring safe storage and adequate separation between chemicals and other products.

### 8.8.3 Grounds Maintenance

Snow plowing and grass cutting is performed by the DPW as needed. The snow is stockpiled at the edge of the parking lots and driveways and the grass clippings are left in place. Garbage is stored in a covered dumpster and periodically removed by the Town contracted waste hauler.

## 8.9 Recommended Modifications- BMPs

Critical to the success of this program, is the need to define specific responsibilities and to create a documented schedule for implemented controls. The following paragraphs describe ways to achieve compliance with the standards of the Pollution Prevention/Good Housekeeping minimum control measure.

1. *Develop and implement an operation and maintenance program with the goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system;*

While the Town of Hopkinton has incorporated many of the elements of a successful operation and maintenance program, this report offers several alternatives for the Town to consider upgrading the effectiveness of its current programs. These recommendations have been divided into each of the principal operation and maintenance functions provided by the Town.

a) Public Street and Parking Lot Sweeping

- The Town of Hopkinton has approximately 145 lane miles of roads (290 gutter miles). With the exception of state and private roads, the Town is responsible for sweeping all roads and state owned pavement once each year. It is recommended that the Town's DPW dedicate crews for its many tasks to ensure their completion.
- Develop sweeping records to allow the sweeping program to be evaluated and to determine specifically what streets should be swept more frequently and at what intervals. These records could simply consist of noting the dates that the street was swept, the approximate volume of sediment removed and the road conditions (e.g. presence potholes). This data could also be used as, and compared to, winter sand application data to determine the effectiveness of the sweeping program.
- Implement a training program for equipment operators, to include operation of equipment to prevent pollution, improved record keeping and proper storage of sweeper tailings.

b) Detention basin, catch basin and storm drain inspection and cleaning

- The Town of Hopkinton is responsible for approximately 290 catch basins and oversees seventeen detention ponds and three swales. Conduct an inventory of storm drain structures in municipal buildings, parking lots and streets in order to determine their current condition, where they discharge to and dry weather to develop a cleaning schedule.
- Establish a documented inspection and cleaning schedule that prioritizes areas based on potential pollution and flooding impacts.
- Maintain records of all cleaning and inspections for the Town's storm sewer system to allow easy reference by street and to identify potential problem areas.

- Develop a checklist for inspection procedures and a reporting mechanism to allow any necessary cleaning to be scheduled.
- c) Fleet vehicle maintenance
- Explore the use of biodegradable soaps for washing the trucks and other equipment outside and the use of oil collection booms to provide primary treatment of vehicle/equipment wash water.
  - Conduct a detailed annual environmental compliance inspection of the highway garage to identify potential pollution sources and take appropriate action to address any problems.
- d) Winter road and lot maintenance
- Identify areas and ways the Town can reduce the amount of sand and salt used on roads and parking lots without compromising safety. For example, use road temperature sensors to estimate an appropriate level of salt application.
- f) Solid waste removal and handling
- Consider posting signs prohibiting littering, at all parks.
  - Establish a documented record of cleanups performed within the Town by the DPW.
- g) Hazardous materials handling and storage
- Establish a hazardous materials collection program for the residents, through the Rhode Island Resource Recovery Corporation's (RIRRC) Eco-Depot. Eco-Depot is a free service for Rhode Islanders who wish to dispose of their household hazardous waste safely and properly. The service is available by appointment only or by going to a Household Hazardous Waste Collection day. For a list of collection dates, locations and other pertinent information including the types of waste Eco-Depot accepts, please view their website at [www.rirrc.org/site/ecodepot/eco\\_main.asp](http://www.rirrc.org/site/ecodepot/eco_main.asp). To request an appointment, please e-mail [ecodepot@rirrc.org](mailto:ecodepot@rirrc.org) and for questions, or call 942-1430 x241.
  - Prominently display Emergency Spill Response Plans in areas where hazardous materials are used and stored.
  - Properly label containers and drums and keep containers and drums on wood pallets with adequate aisle space, access and distance between containers.
  - Provide easy access to equipment or materials to properly minimize the impacts of spills. Provide spill response kits, training and instructions on proper disposal of cleanup waste, to all departments.

- Perform annual training and practice drills to reinforce proper emergency action and to determine weaknesses in current operations and to develop new BMPs.
  - Establish records for tracking the amount of waste oil, antifreeze, hydraulic and brake fluids disposed of.
- h) Low Impact Development Implementation
- Consider mapping municipal properties that would benefit from low impact development (LID) upgrades for water quality improvement purposes.
2. *Include employee training on incorporating pollution prevention/good housekeeping techniques into municipal operations such as landscaping, car and truck fleet maintenance, building and public works yard maintenance, new construction, land disturbances, and storm water system maintenance. Training materials available from the EPA and RIDEM may be used to assist with this task.*

USEPA recommends implementing training programs to improve the effectiveness of existing municipal operations for pollution prevention, to educate employees on new non-structural BMPs, and to teach proper maintenance techniques for structural BMPs.

- Provide training for street sweeper operators on pollution prevention and techniques to maximize sweeping efficiency.
- Provide a training program for hazardous materials (storage and handling)
- Designate a responsible person in each department for pollution prevention program implementation and reporting. Responsible personnel should evaluate the program's success at regular intervals and make appropriate changes.
- Create a Town-wide program designed to inform all public employees of proper pollution prevention BMPs using available media (web page, e-mail, posters, newsletters, etc.). More specific BMP information should be distributed and, if necessary reinforced, via seminars, to educate employees who maintain public roads, landscaped areas, facilities, or vehicles.
- Provide regular updates on the pollution prevention program to inform the public and employees of project success, new procedures, and achievements.
- Implement BMPs for building maintenance, power washing, and repairs that prevent pollutants from entering the storm drainage system. Ideally, these BMPs should be developed by RIDEM or USEPA.

Measurable goals that are used to track program effectiveness should consider all of the requirements of the pollution prevention/good housekeeping minimum control measure. Potential measurable goals, that may be selected for the Town's storm water program include:

- New BMPs are constructed; new maintenance procedures are developed; employee training materials are developed; and procedures for modifying the sweeping program are put in place.
- Training programs are implemented for the appropriate employees and an employee newsletter is published.
- Some pollution prevention BMPs are implemented; BMP maintenance schedules are established; a certain percentage reduction in sand and salt use; employee reward program implemented; and number of floor drains that have been sealed.
- Discharged floatables are reduced; and controls are put in place for all areas of concern.
- Illegal dumping sites detected and cleaned are documented,
- Procedures are put in place for catch basin cleanings on an annual basis.

*Appendix M* provides three checklists for inspection and maintenance of catch basins, municipal construction activities, and storm water ponds and wetlands.

## 9 Storm Water Abatement Opportunities

Hopkinton is a Town of rural character, which, nevertheless, comprises several impaired waterbodies. As discussed in *Section 2.2* of this plan, the majority of the Town outfalls are located within watersheds of impaired waters, but significantly distant from those impaired waters, and all known outfalls discharge to overland flow. As part of normal public works operations, the Town intends to look for water quality improvement opportunities where appropriate and practicable; however, no best management practices (BMPs) or specific BMP field investigations are planned at this time.

## 10 Storm Water Source Reduction and Advanced Management

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### 10.1 Wetlands Protection

All buffers adjacent to wetlands should be enhanced to protect the wetlands from future impairment. Special attention should be given to those waterbodies identified on the 303 (d) impaired waterbody list by the Federal Clean Water Act and the waterbodies that have current bacteria TMDLs (see *Section 2.2.1*).

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### 10.2 Overlay Districts

The Town of Hopkinton currently has Aquifer Protection District zoning regulations. Zoning alterations may be necessary to ensure adequate protection of the Pawcatuck Basin Aquifer System. This may involve updating the current list of prohibited uses to include subsurface storage of regulated

substances, automotive service and repair shops and salvage yards, commercial animal feed-lots with animals kept in high densities, and disposal of liquid or leachable non-human wastes. The Town will consider adopting performance standards that promote nitrogen release reductions. This could include restrictions on using lawn fertilizers.

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## 10.3 Cluster Development

The Hopkinton Zoning Ordinance includes cluster residential development pursuant to the Rhode Island General Law 45-24-47. Section 14B of the Hopkinton Zoning Ordinance states:

All open land provided by cluster residential developments, planned unit developments, or other land development projects for public or common use, shall either be conveyed to the town and accepted by it for park, open space, agricultural, or other specified use or uses, or be conveyed to a nonprofit organization, the principal purpose of which is the conservation of open space, or be conveyed to a corporation or trust owned or to be owned by the owners of lots or units within the development, or owners of shares within a cooperative development. If such a corporation or trust is used, ownership shall pass with conveyances of the lots or units. In any case where the land is not conveyed to the town, a restriction or conservation easement enforceable by the town shall be recorded providing that the land shall be kept in the authorized condition(s) and not be built upon or developed for accessory uses such as parking or roadway without prior approval of the town council.

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## 10.4 Storm Water Ordinance Implementation

As discussed in earlier sections of this plan, the Phase II Storm Water MS4 General Permit requires that MS4s promulgate several ordinances with standards that comply with the *Rhode Island Stormwater Design and Installation Standards Manual*. In 2011, Rhode Island updated the manual to include low impact development (LID) and a number of other technological advances. Municipal land-use policy (i.e., ordinances, regulations, etc.)—particularly policies written prior to the 1990s—may contain language that conflicts with recent advances in stormwater management such as LID. In order to ensure that the Town's policies do not conflict with LID, it is recommended that the Town conducts a thorough policy review. This review should focus particularly on the Town's subdivision regulations, zoning policy, and drainage policy.

# 11 Program Evaluation and Assessment Reporting

Hopkinton is not regulated under the Phase II Storm Water MS4 General Permit; however, funding has been provided to the Town by RIDEM to implement a Storm Water Management Program. Although Hopkinton is not regulated and is not required to submit annual reports, it is possible that RIDEM will include Hopkinton as a regulated town in the new Phase II MS4 Storm Water General Permit, in which case, annual reports would be required to be submitted.

This section discusses programmatic evaluation requirements for regulated MS4s in accordance with the existing Phase II MS4 Storm Water General Permit.

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## 11.1 Revisions to Storm Water Management Program

Regulated municipalities must annually evaluate the compliance of its storm water management program with the conditions of the Phase II MS4 Storm Water General Permit. The evaluation must consider the appropriateness of the selected BMPs in efforts towards achieving the defined measurable goals. The storm water management program and associated plan may be changed in accordance with the following provisions:

- Changes adding (but not subtracting or replacing) components, controls or requirements to the Plan may be made at any time upon written notification to RIDEM,
- Changes replacing an ineffective or infeasible six minimum control measure BMP, specifically identified in the SWMPP, with an alternative BMP may be requested at any time. Unless denied, changes proposed in accordance with the criteria below shall be deemed approved and may be implemented sixty (60) days from submittal of the request. If the request is denied, RIDEM will send a written explanation of the denial. Changes replacing an ineffective or infeasible storm water control specifically identified in the SWMPP or in an approved Scope of Work document to meet the requirements of an approved TMDL, may be requested at any time; however, written approval from RIDEM must be received prior to implementing changes.
- Modification requests, must include the following information:
  - Analysis of why the BMP is ineffective or not feasible (e.g., cost prohibitive).
  - Expectations on the effectiveness of the replacement BMP.
  - Analysis of how the replacement BMP is expected to achieve the goals of the BMP to be replaced.

Revision requests or notifications must be in writing and signed in accordance with the signatory requirements of the permit.

RIDEM may require changes to the Plan as needed to:

- Address impacts on receiving water quality caused or contributed to by discharges from the MS4.
- Include more stringent requirements necessary to comply with new federal statutory or regulatory requirements.
- Include such other conditions deemed necessary to comply with the goals and requirements of the Clean Water Act.

- Include a revised scope of work and implementation schedule necessary to comply with the TMDL requirements.

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## 11.2 Annual Report

Regulated municipalities must submit an annual report that summarizes information regarding storm water management activities during the previous calendar year and planned activities for the upcoming year. The initial report is due one year from the effective date of the Phase II MS4 Storm Water General Permit and annually thereafter. Provided in *Appendix N* is a template for annual reporting provided by RIDEM.

The following information must be contained in the annual report:

- A self-assessment review of compliance with the permit conditions.
- Assessment of the appropriateness of the selected BMPs.
- Assessment of the progress towards achieving the measurable goals.
- Assessment of the progress towards meeting the requirements for the control of storm water identified in an approved TMDL.
- Summary of results of any information that has been collected and analyzed. This includes any type of data.
- Discussion of activities to be carried out during the next reporting cycle.
- A discussion of any proposed changes in identified BMPs or measurable goals.
- Date of annual notice and copy of public notice.
- Summary of public comments received in the public comment period of the draft annual report and planned responses or changes to the program.
- Planned municipal construction projects and opportunities to incorporate water quality BMPs, low impact development as well as activities to promote infiltration and recharge.
- Newly identified physical interconnections with other small MS4s.
- Coordination of activities planned with physically interconnected MS4s.
- Summary of the extent of the MS4 system mapped, actions taken to detect and address illicit discharges including: the number of illicit discharges detected, illicit discharge violations issued, and violations that have been resolved. Number and summary of all enforcement actions referred to RIDEM.

- Summary of the number of site inspections conducted for erosion and sediment controls, inspections that have resulted in an enforcement action and violations that have been resolved. Number and summary of all enforcement actions referred to RIDEM.
- Summary of the number of site inspections conducted for proper installation of post construction structural BMPs, inspections that have resulted in an enforcement action, and violations that have been resolved. Number and summary of all enforcement actions referred to RIDEM.
- Summary of the number of site inspections conducted for proper operation and maintenance of post construction structural BMPs, inspections that have resulted in an enforcement action, and violations that have been resolved.
- Reference any reliance on another entity for achieving any measurable goal.

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### 11.3 Record Keeping

All records required by the Phase II MS4 Storm Water General Permit must be kept for a period of three years. Records include information used in the development of the storm water management program, any monitoring, copies of reports, and all data used in the development of the NOI.

Records need to be submitted to RIDEM only when specifically requested by the permitting authority. Regulated municipalities must make this plan and records relating to the Phase II MS4 Storm Water General Permit available to the public.

## 12 Schedules, Measureable Goals, Costs and Financing

*Appendix A* outlines protective measures that will be taken, identifies the responsible parties, measurable goals, and provides a schedule for implementation over the five year permit term once the Town is mandated to achieve permit coverage. The listed measures were identified through workshops conducted with Jim Lamphere (Town Planner), Tim Tefft (Director of Public Works), and Fuss & O'Neill. At these workshops, the minimum control measures were reviewed and implementation alternatives were discussed. Where possible, the measurable goals are identified as quantifiable measures. In other instances the measurable goals are presented as discrete activities. For these, the conduct of the activity is intended to serve as the goal.

## 13 State Revolving Fund Facilities Planning Checklist

The State Revolving Fund (SRF) offers below-market rate loans to municipalities and other Rhode Island agencies with bonding authority for projects that address certain aspects of water quality management such as TMDL and Phase II MS4 Storm Water General Permit implementation. RIDEM makes certain requirements as part of the SRF facilities planning process. Even an MS4 may not be planning to apply for an SRF loan it is generally a good considered good planning include SRF-related information where practicable. Such information is also a requirement of the grant that the Town received to develop this SWMPP. We have included the following information in accordance with the Town's grant requirements and the SRF facilities plan checklist:

- Planning area and a map that shows the current forecasted service area as well as natural, cultural, historic and archaeological resources in consistency with the community comprehensive plan.
  - Included in this plan in *Figures 1 - 7*
- Assessment of current conditions in the planning area including geophysical, land use and affected plant and animal communities.
  - Included in this plan in *Section 2*

The Town assumes that for the purpose of SRF facilities planning and forecasting that land-use, the economy and demographics that will remain relatively static over the five-year implementation period of this SWMPP.

## Appendix A

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### Storm Water Management Plan and Schedule

**EXECUTIVE SUMMARY**  
**STORM WATER MANAGEMENT PROGRAM PLAN SUMMARY AND SCHEDULE**  
**TOWN OF HOPKINTON**  
**Hopkinton, Rhode Island**

The following plan was prepared using the RIPDES “General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s” requirements as a guide. This summary uses General Permit conditions to identify how the Town will demonstrate that it is effectively protecting its special resource protection waters (SRPWs), outstanding national resource waters (ONRWs), and impaired waters. It also relies on the implementation schedule in the General Permit. If a total maximum daily load (TMDL) determination is finalized for a surface water where Hopkinton is a contributing MS4, the Town is required to submit a NOI and SWMPP to RIDEM within 180 days of notification from the Department.

The table found below is organized by the requirements for the six (6) minimum best management practices. While this report identifies many alternatives, the items specified in this table are those that the Town commits to completing.

Permit Reference	Minimum Control Measure Best Management Practice (BMP) Description	Potential Responsible Party/Department	Measurable Goal	Proposed Schedule <sup>1</sup>	Comments
IV.G.1	Provide Annual Report to document assessment of SWMPP implementation.	Town Council	Annual Report completed	March 10 of every year (commencing upon implementation of the SWMPP)	As discussed in <a href="#">Section 10.2</a> of the SWMPP. Annual Report Template included in <a href="#">Appendix U</a> .
<b>1.</b>	<b>Public Education and Outreach</b>				
IV.B.1.b.1 and 5	Distribute Storm Water Awareness Package (to residents, homeowners associations, and developers) if DEM public education programs are not available	Town Planner	Materials complied. Information distributed. Number of packages distributed (copies at Town Hall and local library).	Select media by: Year 1 Year 1 Distribute media commencing: December Year 4	As discussed in <a href="#">Appendix D</a> of the SWMPP. Example educational materials for potential use included in <a href="#">Appendix C</a> . The Town will also rely on the Storm Water Committee to complete this requirement.
IV.B.1.b.1 and 5	If DEM public education programs are not available, consider distributing storm water fliers to targeted groups and/or locations. Topics to include, but are not limited to proper waste management, management of septic systems, and proper fertilizer application.	Town Planner	Flyer(s) distributed.	Media distributed by: December Year 4	As discussed in <a href="#">Section 3.0</a> of the SWMPP. Example educational materials for potential use included in <a href="#">Appendix E</a> .
IV.B.1.b.1 and 5	Make the Storm Water Management Plan available to the General Public	Storm Water Committee, Town Planner	Make plan available at Town Hall, local library, and in local school districts. Post the plan on the Town Website.	Make copy of SWMPP available upon implementation.	

<sup>1</sup> Unless otherwise indicated year number refers to the annum (i.e., 12 month period) of implementation beginning upon RIDEM’s approval of this plan.

**EXECUTIVE SUMMARY**  
**STORM WATER MANAGEMENT PROGRAM PLAN SUMMARY AND SCHEDULE**  
**TOWN OF HOPKINTON**  
**Hopkinton, Rhode Island**

<b>Permit Reference</b>	<b>Minimum Control Measure Best Management Practice (BMP) Description</b>	<b>Potential Responsible Party/Department</b>	<b>Measurable Goal</b>	<b>Proposed Schedule</b>	<b>Comments</b>
IV.B.1.b.2	If DEM public education programs are not available, consider developing strategies to inform public (visitors, employees, residents) on how to become involved in storm water program. Develop strategy for topics and media to be used.	Town Planner	Strategy decided, information packaged for chosen media(s). Information distributed to the public.	Wait for the Storm Water Committee to issue materials, then develop strategy by: December Year 1 and implement in following years. Included in the SWMPP.	Opportunities are discussed in <u>Section 4.2</u> and <u>Appendix –D-E</u> of the SWMPP.
IV.B.1.b.2	Develop strategies to utilize partnerships with other governmental and non-governmental entities.	Town Planner	Strategy developed.	Reviewed annually.	Potential partners discussed in <u>Section 4.2</u> and <u>Appendix D</u> of the SWMPP. The Town will also rely on the Storm Water Committee to complete this requirement.
IV.B.1.b.3	Consider targeting specific audiences for implementation. Potential target audiences are described in <u>Section 3.3</u> of the SWMPP.	Town Planner	List developed.	Included in SWMPP. Reviewed annually	
IV.B.1.b.4	Consider targeting specific storm water pollutants for abatement. Potential target pollutant sources are discussed in <u>Section 3.4.3</u> of the SWMPP.	Town Planner	List developed.	Included in SWMPP. Reviewed annually	
IV.B.1.b.7	Evaluate the success of this minimum measure.	Town Planner	Annual Report completed	March of every year, starting in Year 2.	As discussed in <u>Section 10</u> of the SWMPP.

**EXECUTIVE SUMMARY**  
**STORM WATER MANAGEMENT PROGRAM PLAN SUMMARY AND SCHEDULE**  
**TOWN OF HOPKINTON**  
**Hopkinton, Rhode Island**

Permit Reference	Minimum Control Measure Best Management Practice (BMP) Description	Potential Responsible Party/Department	Measurable Goal	Proposed Schedule	Comments
<b>2.</b>	<b>Public Participation</b>				
IV.B.2.b.1	SWMPP was developed through a Technical Advisory Committee that included the Town Planner and Director of Public Works and Fuss & O'Neill, Inc., the Town's consultant. The Plan will also be made available for public comment. A public meeting is planned with the Town Council.	Town Council Town Planner	SWMPP available for review.	SWMPP available for review upon implementation.	Copy of Public Notice will be available from Town Administrator.
IV.B.2.b.2.i	Consider targeting specific audiences for implementation. Potential target audiences are described in Section 3.4 3 of the SWMPP.	Storm Water Committee, Town Planner	List developed.	Included in SWMPP. Reviewed annually.	
IV.B.2.b.2.ii	Include public involvement in the Town's storm water program.	Storm Water Committee, Town Planner	Community groups contacted. Number of public activities.	Review annually.	<u>Section 4.0</u> and <u>Appendix D-C</u> include current and potential public involvement activities that exist within the Town.
IV.B.2.b.2.ii	Continue local storm water committee to implement the Plan.	Town Planner	Committee developed and maintained.	Developed by: December Year 2	
IV.B.2.b.2.ii	When regulated, conduct annual Storm Water Plan meeting for the public.	Storm Water Committee, Town Planner	Conduct annual meeting.	Meeting conducted prior to March each year	
IV.B.2.b.2.iii	Allow the public to comment and review the annual report. Provide a written summary of responses for all significant comments.	Storm Water Committee, Town Planner	Annual Report made available to the public. Comments reviewed, written response made available to public (if necessary). Issue public notice for SWMPP draft documents.	Public notice the availability of the report after completion of the SWMPP	
IV.B.2.b.4	Evaluate the success of this minimum measure.	Storm Water Committee, Town Planner	Annual Report completed	March of every year, starting in Year 2.	As discussed in <u>Section 10</u> of the SWMPP.

**EXECUTIVE SUMMARY**  
**STORM WATER MANAGEMENT PROGRAM PLAN SUMMARY AND SCHEDULE**  
**TOWN OF HOPKINTON**  
**Hopkinton, Rhode Island**

Permit Reference	Minimum Control Measure Best Management Practice (BMP) Description	Potential Responsible Party/Department	Measurable Goal	Proposed Schedule	Comments
<b>3</b>	<b>Illicit Discharge Detection and Elimination</b>				
IV.B.3.b.1	Develop an outfall map including locations of outfalls that discharge to SRPWs, ONRWs, and impaired waters and names of the receiving waters in the Town.	Department of Public Works (DPW) GIS Department	Mapping completed, consider integration of asset management system. Identify names and locations of all receiving waters.	Mapping Completed	As discussed in <u>Section 5.2</u> and <u>Section 5.4</u> of the SWMPP.
IV.B.3.b.2	Consider implementing outfall tagging program to identify and number outfall pipes in urbanized areas (optional if GIS mapping is available for all outfalls).	DPW GIS Department	No action planned. If performed- develop procedures. Number of outfalls tagged. Survey of outfalls completed. Number of outfall tags maintained (if installed).	Implemented by: December Year 2	As discussed in <u>Section 5.4</u> of the SWMPP.
IV.B.3.b.3	When the Town undertakes outfall mapping or tagging, additional elements may also be recorded on an on-going basis. These additional elements may be recorded during maintenance of drainage structures, dry weather surveys and installation of new storm drains in the urbanized areas.	DPW	Procedures developed and implemented.	Procedures developed by: December Year 3	Mapping discussed in <u>Section 5</u> of the SWMPP. Procedures in Executive Summary.
IV.B.3.b.4	Develop and introduce an ordinance or other regulatory mechanism to effectively prohibit and enforce unauthorized non storm water discharges into the system. <u>Section 5.3</u> of the SWMPP identifies alternatives for the Town to accomplish this.	Town Council, Planning Board	Draft language and legal review. Conduct informational meetings as necessary.	Developed and introduced by: December Year 1, after the Ad Hoc Committee provides the model ordinance	As discussed in <u>Section 5.3</u> of the SWMPP. Potential model ordinances are included in <u>Appendix G</u> and <u>Appendix H</u> .
IV.B.3.b.4	When introduced, adopt new ordinance to prohibit and enforce unauthorized non storm water discharges into the system.	Town Council, Planning Board, DPW	Submit and schedule for vote at Town Meeting. Regulatory mechanism in place.	Adopted by: December Year 2	As discussed in <u>Section 5.3</u> of the SWMPP. Potential model ordinance included in <u>Appendix G</u> and <u>Appendix H</u> .
IV.B.3.b.5.i.	Drinking water supplies, special habitat areas, recreational areas, and regulated waterways should be given high priority due to the high recreational value of these areas.	Town Planner DPW	Investigations identified, prioritized, conducted. Suspected illicit connections investigated. Source identified and scheduled for removal. Enforcement actions taken or referred to other entity such as police or RIDEM.	Program implemented by: December Year 2	As discussed in <u>Section 5.5</u> of the SWMPP.
IV.B.3.b.5.ii	Complaints associated with illicit discharges will be directed to DPW where these complaints will be logged. DPW will review these complaints upon receipt and determine the appropriate action to take.	DPW Building Official	Number of complaints logged and responded to.	Complaint procedures implemented by December Year 1.	

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IV.B.3.b.5.iii	Procedures for tracing and investigating illicit discharges are provided in <u>Appendix H</u> .	Town Council, Planning Board	Number of illicit connections detected.	Procedures completed.	
IV.B.3.b.5.iv	Remove illicit discharges if any are identified through complaints and investigation. (The process for removing illicit discharges will be defined by the mechanism that will be used to prohibit and enforce illicit discharges.)	DPW	Sources identified and removed.	Developed and introduced by: December Year 1 Adopted by: December Year 2	The regulatory mechanism will define this process which must be approved as part of its adoption.
IV.B.3.b.5.v	The illicit discharge and detection program will be evaluated and assessed annually. This will consist of reviewing the areas evaluated, findings, and whether changes in procedures and priorities need to be made. A summary of this evaluation will be included in the Annual Report.	DPW	Completion of annual review.	March of every year.	
IV.B.3.b.5.vi	Inspect catch basins and manholes for illicit connections and non-storm water discharges. This activity will be coordinated with the recording requirements as stipulated in IV.B.3.b.3 and cleaning activities required in IV.B.6.	DPW	Number of catch basins inspected. Records maintained. Number of corrective measures required and completed.	Begin by: December Year 2 Complete all inspections by: December Year 4.	
IV.B.3.b.5.vii	Conduct a dry – weather survey. Perform a minimum of two surveys (one conducted between January 1 & April 30 and one between July 1 & October 31) in accordance with standards stipulated in the General Permit – as presented in <u>Section 5.4</u> of the report.	DPW	Two surveys completed.	Surveys completed by: December Year 4.	
IV.B.3.b.7	If illicit discharges are detected from other physically interconnected MS4s, the Town will report the finding to the owner of the interconnected MS4.	DPW	Number of illicit discharges reported to other MS4 owners.	Procedures completed.	

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IV.B.3.b.8	Unauthorized non-storm water discharges to the storm drain system will be referred to the RIPDES program for appropriate action. Process will follow procedures developed by the RIPDES program for such a review.	DPW	Number of illicit discharges referred to RIDEM.	Procedures developed.	
IV.B.3.b.9	Public education and municipal employee training programs will inform about hazards associated with illegal discharges and improper disposal of waste. Coordinate with Minimum Measure #1 and 6.	DPW	Ensure that educational materials developed include illicit discharge awareness. Materials developed and distributed.	Materials selected, distribution commenced by: December Year 2.	As discussed in <u>Section 3.0</u> , and <u>Section 5.7</u> of the SWMPP. The Ad Hoc Committee will provide this to the Town as part of its Storm Water Education and Outreach Program.
IV.B.3.b.10	All actions taken to detect and address illicit discharges will be recorded in both field notes as well as on outfall mapping prepared for IV.B.3.b.1.	DPW	Submittal of findings in Annual Report.	Actions will be reported in the Annual Report in March of every year.	
IV.B.3.b.12	Evaluate the success of this minimum measure.	DPW	Annual Report completed.	March of every year.	As discussed in <u>Section 10</u> of the SWMPP.

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<b>4</b>	<b>Construction Site Runoff Control</b>				
IV.B.4.b.1 and 3	Develop, introduce, and adopt an ordinance or other regulatory mechanism or amend existing ordinances to require sediment and erosion control and control of wastes at construction sites. <u>Section 6.4</u> of the SWMPP identifies alternatives for the Town to accomplish this. The <u>Rhode Island Soil Erosion and Sediment Control Handbook</u> (as amended) will serve as the minimum standard.	Town Council, Planning Board, DPW	Draft language and legal review. Conduct informational meetings as necessary. Submit and schedule for vote at Town Meeting. Regulatory mechanism in place.	Developed and introduced by: December Year 1  Adopted by: December Year 2 after Storm Water Committee releases model ordinances	As discussed in <u>Section 6.4</u> of the SWMPP.
IV.B.4.b.2	Issue and track permits for all construction projects resulting in land disturbance of greater than 1 acre in urbanized areas to ensure compliance with erosion and sediment control ordinance. Permit issuance procedures will be defined in the ordinance. Current tracking procedures will be reviewed and amended as necessary to comply with this program.	Town Council, Planning Board, Building Official, DPW	Review current procedures. Improved procedure developed and implemented. Number of permits issued and tracked.	Developed by: December Year 2	As discussed in <u>Section 6.4</u> of the SWMPP.
IV.B.4.b.4	Procedures for reviewing plans and SWPPPs for construction projects resulting in land disturbance of 1-5 acres, not reviewed by other State programs will be defined in the ordinance developed to comply with IV.B.4.b.1 and 2.	Town Council, Planning Board, Building Official	Ordinance developed. Number of plans and SWPPPs reviewed.	Develop by: December Year 2 100% reviewed by end of second year	As discussed in <u>Section 6.4</u> of the SWMPP. Examples of the package developed by the Town for Site Plan Review is included in <u>Appendix M</u> .
IV.B.4.b.5	Develop procedures for coordination of site plan and SWPPP review when relying on State program review of construction activity. The Town will require applicants to submit RIDEM approvals before issuing building permits.	Town Council, Planning Board	Procedure developed.	Procedure developed. Start coordinating by December Year 2.	
IV.B.4.b.6	Public comment and information regarding new development projects and construction runoff related impacts will be directed to the Building Official where these complaints will be logged. The Building Official will review these complaints upon receipt and determine the appropriate action to take. Develop procedures for receipt and consideration of information submitted by the public.	Building Official	Procedure developed. Number of complaints logged and responded to.	Procedure Developed.	

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IV.B.4.b.7	Procedures for site inspection and enforcement of erosion and sediment control measures and control of wastes at construction sites will be defined in the ordinance developed to comply with IV.B.4.b.1 and 2.	Planning Board, Town Council, Building Department, DPW	Review current procedures. Improved procedure developed and implemented.	Procedures formalized by: December Year 2. Commence inspection procedure: December Year 2.	As discussed in <u>Section 6.4</u> of the SWMPP. A sample of a contractor self-inspection report is included in <u>Appendix L</u> .
IV.B.4.b.8	Develop procedures for referral to the State of non-compliant construction site operators.	Town Council, Planning Board DPW	Procedure developed. Number of non-compliant construction sites referred to RIDEM.	Procedures developed.	
IV.B.4.b.10	Evaluate the success of this minimum measure.	DPW, Town Planner	Annual Report completed	March of every year, starting in Year 2.	As discussed in <u>Section 10</u> of the SWMPP.

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<b>5</b>	<b>Post-Construction Runoff Control</b>				
IV.B.5.b.1, 2 and 8	Incorporate requirements that will be determined during ordinance development. The Town will rely on the <u>State of Rhode Island Stormwater Design and Installation Manual</u> (as amended) as a standard to address storm water runoff.	Planning Board Town Council	Program developed, priority areas specified.	Program in place by: December Year 2 after Storm Water Committee issues model ordinances.	As discussed in <u>Section 6.0</u> . A model watershed management plan is included in <u>Appendix N</u> .
IV.B.5.b.3	Procedures for pre-application meetings for site plan review (coordinate IV.B.4.b.4) will be reviewed as part of the development of a new ordinance as described in IV.B.5.b.9.	Planning Board	Procedures developed, number of pre-application meetings held.	Process update by: December Year 2.	
IV.B.5.b.4	Review 100% of plans and SWPPPs for development projects resulting in land disturbance greater than 1 acre, not reviewed by other State programs (coordinate with IV.B.4.b.4). Plan reviews will include the review of post-construction BMPs. Procedures will be developed as part of the development of new ordinances as described in IV.B.5.b.9.	Planning Board, Town Council, Building Official	Number of plans and SWPPPs reviewed.	Start by: December Year 2	
IV.B.5.b.5	When applicants are required to obtain DEM approvals the Town will not issue permits until the required approvals are submitted.	Planning Board Town Council Building Official	Procedures developed. Number of sites permitted over 1 acre.	Procedure Developed	
IV.B.5.b.6	New industrial discharges proposed to discharge to a storm drain system are to be referred to the RIPDES program for review and approval. Procedures will be developed in compliance with the RIPDES program.	Town Council, Planning Board, Building Official	Number of activities referred to RIDEM.	Process implemented by: December Year 2	

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IV.B.5.b.7	When the Town's Comprehensive Plan of Development is updated, opportunities for smart growth and to protect sensitive areas will be identified. Additionally, non-structural BMPs as described in the <u>State of Rhode Island Stormwater Design and Installation Manual</u> (as amended) will be considered. Public education will include discussion of ways to limit runoff. The Town's ordinance will include existing and improved conservation measures.	Town Council, Planning Board, DPW	Items developed and distributed.	As necessary	As discussed in <u>Section 6.4</u> .
IV.B.5.b.9	Develop, introduce, and adopt an ordinance or other regulatory mechanism to address post construction runoff from new development and redevelopment projects. State standards will be included by reference. <u>Section 6.4</u> of the SWMPP identifies alternatives for the Town to accomplish this.	Town Council, Planning Board	Draft language and legal review. Conduct informational meetings as necessary. Submit and schedule for vote at Town Meeting. Regulatory mechanism in place.	Developed and introduced by: December Year 1  Adopted by: December Year 2	As discussed in <u>Section 6.3</u> and <u>Section 6.4</u> . Model ordinances are included in <u>Appendix –O-Q</u> .
IV.B.5.b.10	Develop procedures for post-construction inspection of BMPs to ensure their construction in accordance with the approved plans	Town Council, Planning Board	Submit and schedule for vote at Town Meeting. Procedural mechanism in place.	Adopted by: December Year 2	
IV.B.5.b.11-12	Adopt ordinance or regulations with language and enforceable mechanism for long term operation, maintenance, and inspection of post-construction runoff controls. Included language will provide Building Official authority to ensure proper operation and maintenance of all BMPs tributary to the storm sewer system. Procedures will be developed as part of the development of new ordinances as described in IV.B.5.b.9.	Town Council, Planning Board	Ordinance or regulation developed. Submit and schedule for vote at Town Meeting. Voted and adopted.	Adopted by: December Year 2	As discussed in <u>Section 6.4</u> . Suggested BMP operation and maintenance guidelines are included in <u>Appendix S</u> .
IV.B.5.b.12	Develop a program to identify existing storm water structural BMPs. This identification process should be coordinated with activities of IV.B.6.b.1.i. The Town plans to ID existing BMPs through the GIS mapping task (IV.B.3.b.1).	Planning Board	# BMPs identified. O&M ensured	Developed by: December Year 2.	Ensuring adequate long-term operation of BMPs discussed in <u>Section 6.4</u> .
IV.B.5.b.14	Evaluate the success of this minimum measure.	DPW	Annual Report completed	March of every year.	As discussed in <u>Section 10</u> of the SWMPP.

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<b>6</b>	<b>Pollution Prevention and Good Housekeeping in Municipal Operations</b>				
IV.B.6.b.1.i	Identify and list locations and description of all structural BMPs owned or operated by the MS4.	Building Official, DPW	Number of structures identified.	Initial list: March 2015 Update: annually	As discussed in <u>Appendix S</u> of the SWMPP.
IV.B.6.b.1.ii	Formalize procedures for inspections, cleaning and repair of storm sewers, and catch basins. The Town is already conducting these tasks.	DPW, Planning Board	Identify the structures tributary to the system. Conduct a catch basin sediment accumulation pilot program. Establish a routine inspection and maintenance program. Maintain records of inspections conducted, number of structures cleaned, approximate volume of material collected.	Developed: December Year 1	As discussed in <u>Appendix S</u> of the SWMPP.
IV.B.6.b.1.iii	Formalize current catch basin inspection and cleaning program.	DPW	Formalized existing program. Number of catch basins inspected and number cleaned.	Developed by: December Year 1 Complete by: December 2016	As discussed in <u>Appendix S</u> of the SWMPP.
IV.B.6.b.1.iv	Observe road shoulder and outfall scouring and/or excess sedimentation during road work projects. If problems are observed, report them to supervisors. Schedule repairs and appropriate methods for stabilization including riprap or vegetative stabilization.	Building Official, DPW	Procedures developed.	Implemented by: December Year 1	
IV.B.6.b.1.v	The Town will identify and report known discharges causing scouring, annually as part of the Annual Report submitted in accordance with Part IV.G.2.e. This will allow RIDEM to determine if the scouring (or sedimentation) is a significant and continuous source of sediments.	Town Council Planning Board DPW, Town Planner	Procedures developed and implemented.	Start reporting outfalls by: December Year 1.	
IV.B.6.b.1.vi	Implement a street and road sweeping program. Town will continue to sweep all roads and streets once per year.	DPW	Maintain records of curb-miles swept, approximate volume of material collected.	Implement by: December Year 3	As discussed in <u>Appendix S</u> of the SWMPP.

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IV.B.6.b.1.vii	The Town plans to incorporate a review for controls to reduce floatables and other pollutants from the MS4. This program will be based on a review of current catch basin grates and their ability to bypass flows to a curb inlet, as well as observation of outfalls to determine locations with the greatest potential for floatables.	DPW	Program developed, volume of wastes collected and disposed, list of controls implemented.	Program developed by: December Year 1	
IV.B.6.b.1.viii	Town will dispose wastes removed from the MS4 in accordance with applicable State requirements.	DPW, Storm Water Committee	Waste disposed of properly.	Reviewed annually.	
IV.B.6.b.2	Operations under MS4s legal control that have the potential to introduce pollutants into the storm water system are addressed in <u>Section 7.0</u> .	Building Official, Storm Water Committee	Operations identified.	Completed	
IV.B.6.b.3	Industrial facilities owned and operated by MS4s that have storm water discharges associated with industrial activities are listed on the NOI.	Building Official, Storm Water Committee, DPW	Facilities identified on NOI.	Completed	
IV.B.6.b.4	Operation and maintenance and good housekeeping practices and BMPs for municipal operations have been identified in <u>Section 7.2</u> .	Building Official, DPW, Storm Water Committee, Planning Board	Continue to implement.	Program implemented by: March Year 5.	
IV.B.6.b.5.ii- viii	Develop SWPPP for Town owned or operated facilities with discharges associated with industrial activity. The SWPPP must include a description of storm water BMPs.	DPW, Town Planner	Develop SWPPPs.		
IV.B.6.b.6	Incorporate storm water awareness training into existing training for equipment operators and mechanics (Health & Safety, Right to Know)	Building Official, Town Council, DPW, Town Planner	Training completed. Educational materials distributed.	Procedures developed by: December Year 1. Training conducted by: December Year 4,	Current training is discussed in sections 7.2.12, 7.3.9, 7.6.2 and 7.7.2. Refer to <u>Section 7.9</u> of this plan for recommendations. The Storm Water Committee Program will provide this.
IV.B.6.b.7	The Town will assess the ability to incorporate water quality improvements into flow management projects when feasible at the planning or design stages.	Building Official, DPW, Town Council	Procedures developed	Completed	
IV.B.6.b.8	The Town does and will implement proper erosion and sediment and water quality controls for all construction projects undertaken by the Town.	Building Official, DPW, Town Council	Procedures developed	Procedures developed by: December Year 1	
IV.B.6.b.10	Evaluate the success of this minimum measure.	Town Council, Storm Water Committee	Annual Report completed	March of every year.	As discussed in <u>Section 10</u> of the SWMPP.
<b>7</b>	<b>Additional Recommendations</b>				
Unreferenced	The Town will consider updating ordinances so that	Town Council	Developed SWPPPs	Procedures Developed by	

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	they are in agreement with existing requirements for LID implementation.			December Year 3	
Unreferenced	The Town will consider mapping potential sites for LID on municipality property.	Town Council	Developed SWPPPs	Developed by Year 3.	

## Appendix B

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### Watershed Summaries for Existing TMDLs



# Ashaway River

## Watershed Description

This **TMDL** applies to the Ashaway River assessment unit (RI0008039R-02A), a 1.8-mile long stream located in Hopkinton, RI (Figure 1). The Town of Hopkinton is located in the southwestern corner of the state and is bordered by Connecticut to the east and Westerly, RI, to the south. The Ashaway River is located in the southwestern section of town along the Connecticut border. The Ashaway River watershed is presented in Figure 2 with land use types indicated.

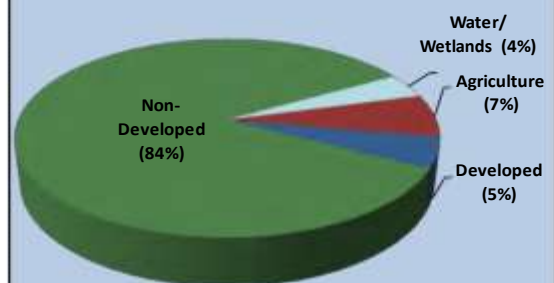
The Ashaway River begins at the confluence of Parmenter Brook and the Green Fall River in the southwestern section of Hopkinton, near Route 216. The brook flows south parallel to Laurel Street through a residential area before it empties into the Pawcatuck River along the Connecticut border.

The Ashaway River watershed covers 28.2 square miles in both Rhode Island and Connecticut, with the majority of the watershed located in Connecticut. Non-developed areas occupy a large portion (84%) of the watershed. Developed uses (including residential and commercial uses) occupy approximately 5%. Agricultural land uses occupy 7% and wetlands and other surface waters occupy 4%.

The Town of Hopkinton is 44 square miles and has a population of approximately 8,000 people. Hopkinton has over 1,000 acres of open space supporting various recreational activities, including hiking, fishing, and canoeing. The Hopkinton Land Trust was established in 2004 and has protected 875 acres of land through property acquisition and conservation easements (Town of Hopkinton, 2010).

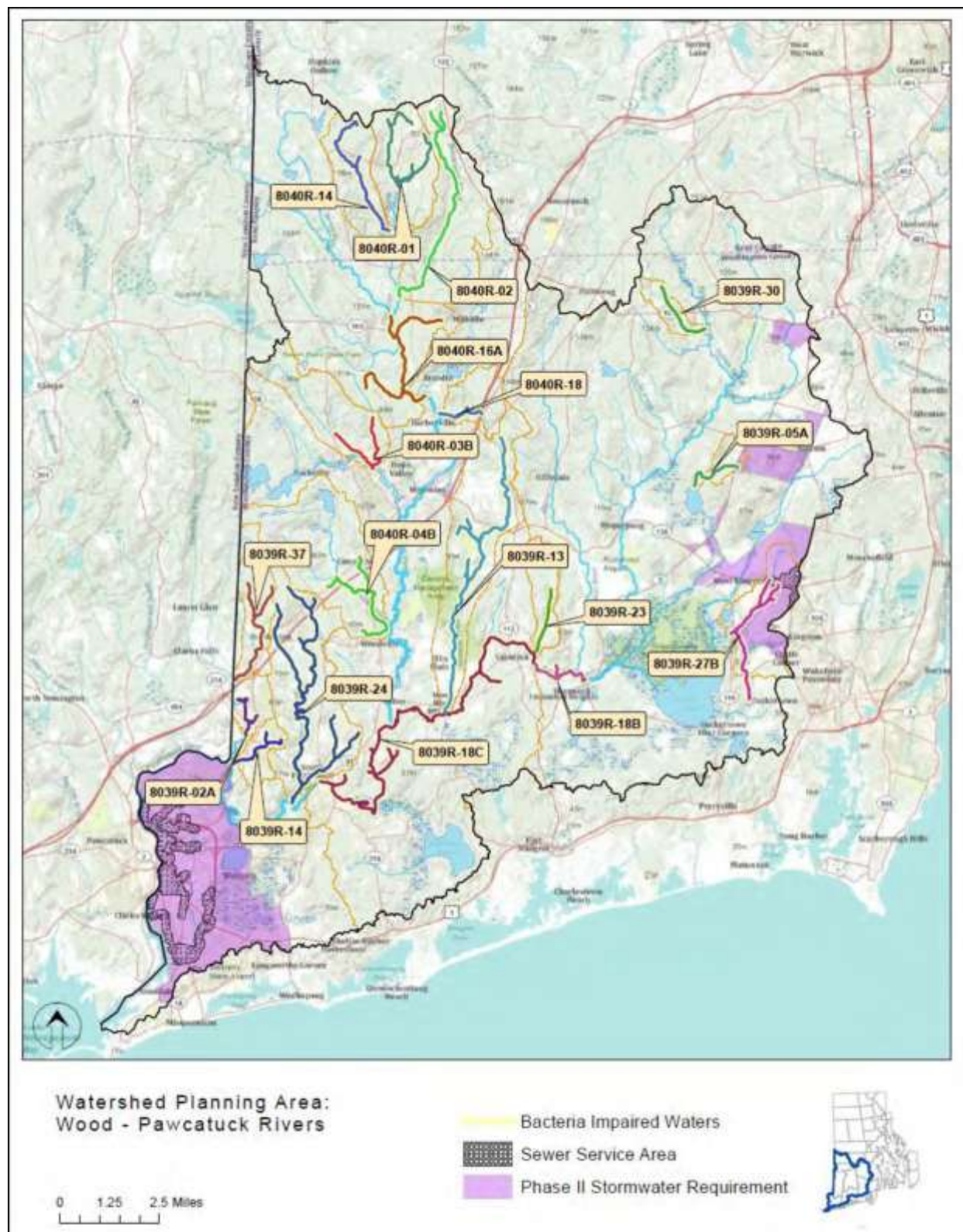
## **Assessment Unit Facts** **(RI0008039R-02A)**

- **Town:** Hopkinton
- **Impaired Segment Length:** 1.8 miles
- **Classification:** Class A
- **Direct Watershed:** 28.2 mi<sup>2</sup> (18060 acres)
- **Imperious Cover:** < 1%
- **Watershed Planning Area:** Wood – Pawcatuck (#23)



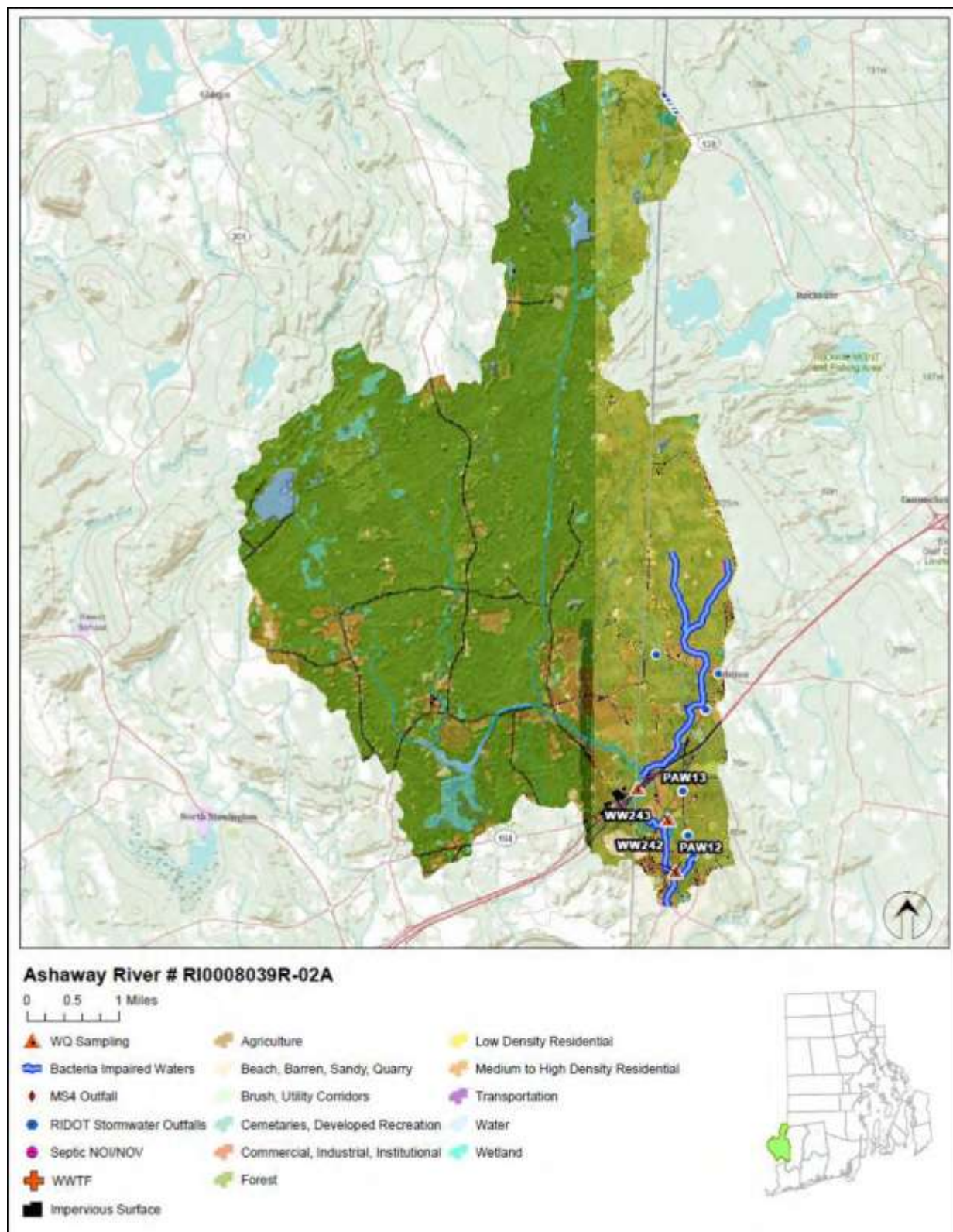
**Watershed Land Uses**

**DRAFT RHODE ISLAND STATEWIDE TMDL FOR BACTERIA IMPAIRED WATERS  
ASHAWAY RIVER WATERSHED SUMMARY**



**Figure 1: Map of the Wood-Pawcatuck Watershed Planning Area with impaired segments in the Statewide Bacteria TMDL, sewer service areas, and stormwater regulated zones.**

**DRAFT RHODE ISLAND STATEWIDE TMDL FOR BACTERIA IMPAIRED WATERS  
ASHAWAY RIVER WATERSHED SUMMARY**



**Figure 2: Map of the Ashaway River watershed with impaired segments, sampling locations, and land cover indicated.**

### **Why is a TMDL Needed?**

The Ashaway River is a Class A fresh water stream, and its applicable designated uses are primary and secondary contact recreation and fish and wildlife habitat (RIDEM, 2009). From 2005-2008, water samples were collected from two sampling locations (PAW12/WW242 and WW243) and analyzed for the indicator bacteria, enterococci. The water quality criteria for enterococci, along with bacteria sampling results from 2006-2008 and associated statistics are presented in Table 1. The geometric mean was calculated for all stations and exceeded the water quality criteria value at both stations.

To aid in identifying possible bacteria sources, the geometric mean was also calculated for each station for wet-weather and dry-weather sample days, as appropriate. Both wet and dry geometric mean values exceeded the water quality criteria for enterococci at stations WW242 and WW243 with wet-weather values much higher than the dry-weather values. Possible dry and wet weather sources are described in the sections below.

Potential sources include improperly operating onsite wastewater treatment systems (OWTS), wastes from agriculture activities, as well as wastes from waterfowl, wildlife, and domestic pets. In wet weather, these sources can be carried to the river in stormwater runoff.

Due to the elevated bacteria measurements presented in Table 1, the Ashaway River does not meet Rhode Island's bacteria water quality standards, is identified as impaired, and was placed on the 303(d) list (RIDEM, 2008). The Clean Water Act requires that all 303(d) listed waters undergo a TMDL assessment that describes the impairments and identifies the measures needed to restore water quality. The goal is for all waterbodies to comply with state water quality standards.



**Figure 3: Partial aerial view of the Ashaway River watershed. (Source: Google Maps)**

### **Potential Bacteria Sources**

There are several potential sources of bacteria in the Ashaway River watershed including malfunctioning onsite wastewater treatment systems, agricultural activities, waterfowl, wildlife, and domestic animal waste, and stormwater runoff from developed areas.

#### **Onsite Wastewater Treatment Systems**

All residents in the Town of Hopkinton and the Ashaway River watershed rely on onsite wastewater treatment systems (OWTS) such as cesspools and septic systems. Failing OWTS can be significant sources of bacteria by allowing improperly treated waste to reach surface waters (RI HEALTH, 2003). If systems are not sized properly, malfunctioning, or in soils poorly suited for septic waste disposal, microorganisms such as bacteria, can easily enter surface water (USEPA, 2002). As shown in Figure 2, one OWTS Notice of Violation/Notice of Intent to Violate (NOV/NOI) has been issued by the RIDEM Office of Compliance and Inspection in the Ashaway River watershed.

#### **Agricultural Activities**

Agricultural operations are an important economic activity and landscape feature in the state's rural areas. There are multiple agricultural operations located within the Ashaway River watershed. Agricultural runoff may contain pollutants, including bacteria. Agricultural practices such as allowing livestock to graze near streams, crossing livestock through waterbodies, spreading manure as fertilizer, and improper disposal of manure can contribute to bacterial contamination.

#### **Waterfowl, Wildlife, and Domestic Animal Waste**

Most of the Ashaway River watershed is undeveloped. Wildlife, including waterfowl, may be a significant bacteria source to surface waters. With the construction of roads and drainage systems, these wastes may no longer be retained on the landscape, but instead may be conveyed via stormwater to the nearest surface water. As such these physical land alterations can exacerbate the impact of these natural sources on water quality.

Residential development is concentrated in the southern portion of the watershed. Waste from domestic animals, such as dogs, in these residential neighborhoods may also be contributing to bacteria concentrations in the Ashaway River. Other potential sources include the Cheyenne Farm Kennel, a 32-acre farm for the breeding and grooming of dogs.

### Developed Area Stormwater Runoff

Approximately 5% of the Ashaway River watershed is developed and most of the development is concentrated along major roads in the watershed. The Ashaway River watershed has an impervious cover of less than 1%. Impervious cover is defined as land surface areas, such as roofs and roads that force water to run off land surfaces, rather than infiltrating into the soil. Impervious cover provides a useful metric for the potential for adverse stormwater impacts. While runoff from impervious areas in these portions of the watershed may be contributing bacteria to the Ashaway River, as discussed in Section 6.3 of the Core TMDL Document, as a general rule, impaired streams with watersheds having less than 10% impervious cover are assumed to be caused by sources other than urbanized stormwater runoff.

The Rhode Island Department of Transportation (RIDOT) has identified and mapped stormwater outfalls within the Town of Hopkinton, including those for Interstate 95 (I-95). As shown in Figure 2, multiple outfalls are found in the watershed, particularly along major highways.

### Existing Local Management and Recommended Next Steps

Additional bacteria data collection would be beneficial to support identification of sources of potentially harmful bacteria in the Ashaway River watershed. These activities could potentially include sampling at several different locations and under different weather conditions (e.g., wet and dry). Field reconnaissance surveys focused on stream buffers, stormwater runoff, and other source identification may also be beneficial.

Based on existing ordinances and previous investigations, the following steps are recommended to support water quality goals.

### Onsite Wastewater Management

All residents of the Town of Hopkinton and the Ashaway River watershed rely on OWTS (septic systems or cesspools). The Town of Hopkinton has a draft Onsite Wastewater Management Plan that provides a framework for managing the OWTS. As part of an onsite wastewater planning process, Hopkinton should adopt ordinances to establish an enforceable mechanism to ensure that existing OWTS are properly operated and maintained. RIDEM recommends that all communities, including Hopkinton, create an inventory of onsite systems through mandatory inspections. Inspections help encourage proper maintenance and identify failed and sub-standard systems. Policies that govern the eventual replacement of sub-standard OWTS within a reasonable time frame should be adopted. The Rhode Island Wastewater Information System (RIWIS) can help develop an initial inventory of OWTS and can track voluntary inspection and pumping programs (RIDEM, 2010b).

**DRAFT RHODE ISLAND STATEWIDE TMDL FOR BACTERIA IMPAIRED WATERS  
ASHAWAY RIVER WATERSHED SUMMARY**

The Town of Hopkinton is not eligible for the Community Septic System Loan Program (CSSLP). The CSSLP program provides low-interest loans to residents to help with maintenance and replacement of OWTS. It is recommended that the town develop a program to assist citizens with the replacement of older and failing systems.

Waterfowl, Wildlife, and Domestic Animal Waste

The Town of Hopkinton should develop education and outreach programs to highlight the importance of picking up after dogs and other pets and not feeding waterfowl. Animal waste should be disposed of away from any waterway or stormwater system. Hopkinton should work with volunteers to map locations where animal waste is a significant and a chronic problem. The town should also evaluate strategies to reduce the impact of animal waste on water quality. This may include installing signage, providing pet waste receptacles or pet waste digester systems in high-use areas, enacting ordinances requiring clean-up of pet waste, and targeting educational and outreach programs in problem areas.

The town and residents can take several measures to minimize waterfowl-related impacts. They can allow tall, coarse vegetation to grow in areas along the shores of the Ashaway River that are frequented by waterfowl. Waterfowl, especially grazers like geese, prefer easy access to the water. Maintaining an uncut vegetated buffer along the shore will make the habitat less desirable to geese and encourage migration. With few exceptions, Part XIV, Section 14.13 of Rhode Island's Hunting Regulations prohibits feeding wild waterfowl at any time in the state of Rhode Island. Educational programs should emphasize that feeding waterfowl, such as ducks, geese, and swans, may contribute to water quality impairments in the Ashaway River and can harm human health and the environment.

Agricultural Activities

If not already in place, agricultural producers should work with the RIDEM Division of Agriculture and the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) to develop conservation plans for their farming activities within the watershed. NRCS and the RIDEM Division of Agriculture should ensure that all agricultural operations within the watershed have sufficient stream buffers, have fencing to restrict access of livestock and horses to streams and wetlands, and have animal waste handling, disposal, and other appropriate BMPs in place.

Stormwater Management

The Rhode Island Department of Transportation (RIDOT) (RIPDES permit RIR040036) is a municipal separate storm sewer (MS4) operator in the Ashaway River watershed and has prepared the required Phase II Stormwater Management Plan (SWMP) for state-owned divided highways (I-95) within the watershed. The Town of Hopkinton is not currently regulated under the Phase II Program.

**DRAFT RHODE ISLAND STATEWIDE TMDL FOR BACTERIA IMPAIRED WATERS  
ASHAWAY RIVER WATERSHED SUMMARY**

The Town of Hopkinton does not currently have an ordinance to address illicit discharges. This type of ordinance prohibits illicit discharges to the storm drain system and provides an enforcement mechanism. Dry weather enterococci values exceed criteria at both the Route 116 and Wellstone Street crossing of the Ashaway River. It is recommended that any stormwater outfalls discharging in the near vicinity of these sampling locations be monitored to check for illicit discharges. Illicit discharges can be identified through continued dry-weather outfall sampling and microbial source tracking.

RIDOT's SWMPP and its 2011 Compliance Update outline its goals for compliance with the General Permit. It should be noted that RIDOT has chosen to enact the General Permit statewide, beyond the General Permit's requirements regarding stormwater from urbanized and densely populated areas, as well as from divided highways outside of the urbanized and densely populated areas. RIDOT has finished mapping its outfalls throughout the state and is working to better document and expand its catch basin inspection and maintenance programs along with its BMP maintenance program. Storm Water Pollution Prevention Plans (SWMPP) are being utilized for RIDOT construction projects. RIDOT also funds the University of Rhode Island Cooperative Extension's Stormwater Phase II Public Outreach and Education Project, which provides participating MS4s with education and outreach programs that can be used to address TMDL public education recommendations.

As it is assumed that stormwater runoff is not the major contributor of bacteria to the Ashaway River based on the watershed's imperviousness, RIDOT will have no changes to its Phase II permit requirements and no TMDL Implementation Plan (TMDL IP) will be required at this time.

Land Use Protection

Woodland and wetland areas within the Ashaway River watershed absorb and filter pollutants from stormwater runoff, and help protect both water quality in the stream and stream channel stability. As these areas represent the majority of the land use in the Ashaway River watershed, it is important to preserve these undeveloped areas, and institute controls on development in the watershed. The Hopkinton Land Trust was established in 2004 and has since protected 875 acres of land through property acquisition and conservation easements (Town of Hopkinton, 2011). The town should work with the land trust to protect more of the undeveloped land in Hopkinton, with a focus on lands around the Ashaway River.

The steps outlined above will support the goal of mitigating bacteria sources and meeting water quality standards in the Ashaway River.

**DRAFT RHODE ISLAND STATEWIDE TMDL FOR BACTERIA IMPAIRED WATERS  
ASHAWAY RIVER WATERSHED SUMMARY**

**Table 1: Ashaway River Bacteria Data**

**Waterbody ID:** RI0008039R-02A

**Watershed Planning Area:** 23 – Wood-Pawcatuck

**Characteristics:** Freshwater, Class A, Primary and Secondary Contact Recreation, Fish and Wildlife Habitat

**Impairment:** Enterococci (colonies/100mL)

**Water Quality Criteria for Enterococci:** Geometric Mean: 54 colonies/100 mL

**Percent Reduction to meet TMDL:** 78% (Includes 5% Margin of Safety)

**Data:** 2005-2008 from RIDEM

**Single Sample Enterococci (colonies/100 mL) Results for Ashaway River (2005-2008) with Geometric Mean Statistics**

Station Name	Station Location	Date	Result	Wet/Dry	Geometric Mean
WW242	Ashaway River at Rte 216	10/25/2008	40	Dry	<b>197<sup>†</sup> (78%)*</b>
WW242	Ashaway River at Rte 216	9/20/2008	101	Dry	
WW242	Ashaway River at Rte 216	8/16/2008	1553	Dry	
PAW12	Ashaway River at Rt 216	7/30/2008	236	Dry	
WW242	Ashaway River at Rte 216	7/12/2008	74	Dry	
PAW12	Ashaway River at Rt 216	7/9/2008	48	Dry	
WW242	Ashaway River at Rte 216	6/7/2008	2420	Wet	
WW242	Ashaway River at Rte 216	5/10/2008	178	Wet	
WW242	Ashaway River at Rte 216	10/20/2007	64	Wet	43
WW242	Ashaway River at Rte 216	9/15/2007	333	Wet	
WW242	Ashaway River at Rte 216	8/18/2007	93	Dry	
WW242	Ashaway River at Rte 216	7/21/2007	13	Dry	
WW242	Ashaway River at Rte 216	6/16/2007	27	Dry	
WW242	Ashaway River at Rte 216	5/12/2007	41	Dry	
PAW12	Ashaway River at Rt 216	10/27/2006	1	Dry	
PAW12	Ashaway River at Rt 216	8/9/2006	160	Dry	
PAW12	Ashaway River at Rt 216	5/31/2006	47	Dry	
PAW12	Ashaway River at Rt 216	9/21/2005	110	Dry	

**DRAFT RHODE ISLAND STATEWIDE TMDL FOR BACTERIA IMPAIRED WATERS**  
**ASHAWAY RIVER WATERSHED SUMMARY**

**Single Sample Enterococci (colonies/100 mL) Results for Ashaway River (2005-2008) with Geometric Mean Statistics (continued)**

Station Name	Station Location	Date	Result	Wet/Dry	Geometric Mean
WW243	Ashaway River at Wellstone Rd.	10/25/2008	19	Dry	125
WW243	Ashaway River at Wellstone Rd.	9/20/2008	221	Dry	
WW243	Ashaway River at Wellstone Rd.	8/16/2008	816	Dry	
WW243	Ashaway River at Wellstone Rd.	7/12/2008	122	Dry	
WW243	Ashaway River at Wellstone Rd.	6/7/2008	109	Wet	
WW243	Ashaway River at Wellstone Rd.	5/10/2008	87	Wet	
WW243	Ashaway River at Wellstone Rd.	10/20/2007	201	Wet	186
WW243	Ashaway River at Wellstone Rd.	9/15/2007	2827	Wet	
WW243	Ashaway River at Wellstone Rd.	8/18/2007	980	Dry	
WW243	Ashaway River at Wellstone Rd.	7/21/2007	82	Dry	
WW243	Ashaway River at Wellstone Rd.	6/16/2007	39	Dry	
WW243	Ashaway River at Wellstone Rd.	5/12/2007	24	Dry	
Shaded cells indicate an exceedance of water quality criteria					
* Includes 5% Margin of Safety					
† Geometric mean used to determine percent reduction					

**Wet and Dry Weather Geometric Mean Enterococci Values for each Station**

Station Name	Station Location	Years Sampled	Number of Samples		Geometric Mean		
			Wet	Dry	All	Wet	Dry
WW242 PAW12	Ashaway River at Rte 216	2005-2008	4	13	110	310	80
WW243	Ashaway River at Wellstone Rd.	2007-2008	4	8	153	270	115
Shaded cells indicate an exceedance of water quality criteria							
Weather condition determined from rain gage at URI in Kingston, RI							

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## Appendix C

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Appendix G from state Guide Plan 731 Report Number 87

## APPENDIX G

### Land Use Classification System

The Land Use Classification System, presented below, is an adaptation of the system set forth in the Scituate Reservoir Watershed Management Plan (RIDOP 1990). Where appropriate, references are made to sections of the plan that provide additional information relating to the nature and implementation of specific mitigative measures.

#### CLASS A • MINIMAL RISK

These land uses have minimal potential to cause surface (or groundwater) contamination problems. Thus, they are the most desirable in terms of providing protection to a surface drinking water supply.

##### A.1 Open Space

Lands owned and managed by a water utility for a public drinking supply (no passive recreation).

Publicly owned open space (forest, shrub, or abandoned field cover types) with passive recreation permitted but no permanent facilities (e.g., rest rooms, bath houses, etc.).

Privately owned and managed wildlife refuges.

Privately owned and managed forest lands.

##### Mitigative Measures

1. Require land-clearing operations to comply with best management practices (BMPs) as described in the R.I. Soil Erosion and Sediment Control Handbook (RIDEM 1989).
2. Maintain undisturbed vegetated buffers, at a minimum of 100 feet, between cleared areas and any body of water.
3. Prohibit below-ground fuel storage.

## CLASS B - SLIGHT RISK

These land uses are potential contamination sources, but their impacts can be mitigated if development standards are instituted. Since these uses provide substantial economic returns to landowners without posing a major risk to drinking water supplies, it would be unreasonable to prohibit these uses within the entire watershed.

### B.1 Low Density Residential

Two acres or more per dwelling unit.

#### Mitigative Measures

1. Require undisturbed septic system setbacks from the groundwater table and all surface waters (see section 4.2 of the Scituate Plan).
2. Require vegetated buffer strips (see section 4.2 of the Scituate Plan).
3. Establish mandatory septic system maintenance programs (see Waste Water Management Districts --A Starting Point (RIDOP 1987)).
4. Prohibit below-ground fuel storage, and require BMPs for above-ground fuel storage (see Oil Pollution Control Regulations (RIDEM 1990b)).
5. Establish erosion and stormwater runoff controls (see section 2.2.2 of the Scituate Plan).
6. Set limits for impervious areas (no greater than 10 percent).
7. Require fertilizer/pesticide BMPs (see sections 2.2.9 and 2.2.10 of the Scituate Plan).
8. Develop educational programs on hazardous materials, *septic* systems, irrigation, fertilizers and pesticides. (RIDEM is a good source for brochures on these topics).

### B.2 Field Crops

Permanent pasture

Hay crops

Turf

### B.3 Utility Rights of-Way

### B.4 Golf Courses

#### Mitigative Measures

1. Require BMPs for mowing, vegetative cover establishment and maintenance, fertilizing, and pesticide/herbicide use. BMPs should be developed with assistance from the USDA Natural Resources Conservation Service (NRCS), URI Cooperative Extension **Progrand** local Conservation Districts (see section 2.2.9 of the Scituate Plan).
2. Require vegetated buffer strips and controlled outlet basins.
3. Prohibit below-ground fuel storage, and require BMPs for above-ground fuel storage (see Oil Pollution Control Regulations (RIDEM 1990b)).

### B.S Developed Recreation

Developed active recreation sites with permanent structures (e.g., rest rooms), including public parks and playfields, but excluding golf courses.

Rod and gun clubs and similar uses that include sanitary facilities.

#### Mitigative Measures

1. Require land-clearing operations to comply with BMPs as described in the R.I. Soil Erosion and Sediment Control Handbook (RIDEM 1989).
2. Maintain undisturbed vegetated buffers, at a minimum of 100 feet, between cleared areas and any body of water.
3. Require contained pump-out, composting, or waterless toilets, where appropriate.
4. Prohibit below-ground fuel storage.

## CLASS C • MODERATE RISK

The contaminants generated by these land uses are similar in nature to those in Category B. However, the density and/or intensity of use can contribute greater pollutant loadings to surface (and ground) waters. These uses will therefore require regulatory oversight and strict adherence to applicable mitigative measures to prevent contamination problems.

### C.1 Agricultural Production

Livestock - dairy, poultry, beef cattle, etc.

Nurseries and orchards.

Corn.

Fruit and vegetable crops.

#### Mitigative Measures

Develop site-specific BMPs with assistance from the NRCS and URI Cooperative Extension. Require and enforce applicable BMPs (see section 2.2.3 of the Scituate Plan.).

### C.2 Medium Density Residential

Between one-quarter and two acres per dwelling unit.

#### Mitigative Measures

Prohibit new development at this density within the watershed. Existing areas should be a high priority for septic system maintenance programs and for educational programs on hazardous materials, fertilizers, pesticides, and water conservation. Lots of record should be subject to applicable mitigative measures for low density residential development (B.1).

### C.3 Low Intensity Commercial and Institutional

Churches, government offices.

Professional office buildings.

Restaurants.

Junk and salvage yards.

Automobile dealers.

Appliance repair shops.

Motels and hotels.

Car washes.

Sand and gravel mining.

#### D.11 Light Industrial

Any process that does not require a wastewater discharge other than domestic sewage and does not use, store, or dispose of significant quantities of hazardous materials.

#### J.1 Mitigative Measures

1. All of these uses should be located outside of the watershed *if* possible.
2. Any use that must be located within the watershed should be subjected to a site plan review process to determine the most appropriate mitigative measures. The mitigative measures listed for Category B.1 land uses should be considered as a starting point.
3. Development standards such as specific stormwater runoff controls, limits on impervious surfaces, set-backs from waterbodies, and hazardous material controls need to be established for these uses. The burden to prove that any use will not contaminate surface (or ground) waters must be the responsibility of the applicant.

#### CLASS E - SEVERE RISK

These uses should not be permitted in the watershed since they have the highest potential to contaminate water quality. In addition, these uses generate, store, or produce hazardous materials/wastes that can be leaked, spilled, or washed into surface (or ground) waters.

E.1 Any use that would generate a wastewater discharge other than domestic sewage

Photo processors.

Food and convenience stores with parking lots less than one acre in size.

Other such uses that would not produce wastewater discharges or stormwater runoff at a higher level than would be expected from medium density residential development.

### Mitigative Measures

The primary concerns with these uses are stormwater runoff generated from parking lots and other impervious surfaces, and large-capacity septic systems. Development standards for stormwater runoff abatement and septic system setbacks and maintenance must be complied with prior to permitting this type of development (see sections 2.2.1 and 2.2.2 of the Scituate Plan). The other mitigative measures cited for Category B.1 land uses also apply.

## CLASS D - HIGH RISK

Land uses within this category can pose substantial risks to a drinking water supply due to the high density and activity levels associated with them. There is always a threat of spills, leaks, or unauthorized discharges of domestic wastewater or hazardous materials associated with these uses. For example, wastewater discharges from high schools can contain toxic chemicals from laboratories or degreasing agents from automotive and shop classes. Some of these uses (D.1) provide important community services and thus may be difficult to prohibit in the watershed.

### D.1 Institutional

Schools, colleges.

Hospitals.

Medical offices.

Nursing homes.

### D.2 High Density Residential

One-quarter acre or less per dwelling unit.

### D.3 Commercial Uses

Shopping centers with parking lots greater than one acre in size.

Furniture strippers.

Laboratories.

*Dry* Cleaners.

Laundromats.

E.2 Any use that would store, use, or process a hazardous material

Gas stations.

Landfills.

Oil distributors.

Printers.

Fertilizer, pesticide, herbicide warehouses.

Auto body and repair shops.

Airports.

Mitigative Measures

1. Municipal zoning ordinances should prohibit these uses in the watershed.
2. If these uses are to be allowed, the mitigative measures recommended for Category B.1 land uses should apply as a starting point. In addition, the applicant must prove that a proposed use will not impair water quality.

## Appendix D

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### Available Public Education and, Involvement Resources and Implementation Alternatives

## **School Resources**

### **USEPA Environmental Education Center (EEC)**

The on-line EEC provides teachers with technical background, curriculum and activities information, and workshops on a variety of environmental topics. This resource is useful in providing educators with the tools to teach students in grades K-12. The EEC web page is [www.epa.gov/teachers](http://www.epa.gov/teachers). More information on educational resources, including having USEPA employees provide talks and presentations at public events or in schools, may be obtained from the USEPA Region 1 (New England) office located at 5 Post Office Square – Suite 100, Boston MA 02109-3912, (888) 372-7341.

The Environmental Education Grant Program was developed to provide financial support for projects that “design, demonstrate or disseminate environmental education practices, methods or techniques.” Organizations eligible to apply for grant funds are:

- A local or tribal government education agency, college, or university; a state education or environmental agency; a 501(c)(3) not-for-profit organization; or a noncommercial educational broadcasting entity is eligible.
- A teacher's school district, an educator's not-for-profit organization, or a faculty member's college or university may apply, but an individual teacher is not eligible.
- The primary applicant must be based in the U.S.; partner organizations and project activities may be located outside the U.S.

### **USEPA Student Center**

USEPA's Student Center web site provides information and activities for students to learn more about surface water ecosystems, environmental laws, and pollution. The site is located at [www.epa.gov/students](http://www.epa.gov/students). There is also the Explorers' Club web page for younger students with games, activities and documents on the basics of environmental education.

### **President's Environmental Youth Awards**

The President's Environmental Youth Awards is a program that recognizes young people across America for projects that demonstrate their commitment to the environment. Winners of regional certificates in the program are evaluated against winners in other USEPA regions. The national winner receives a plaque issued by the President of the United States at an USEPA awards ceremony. Participants of completed projects will receive a certificate signed by the President. Projects can include a variety of topics focused on environmental issues and environmental science. Participation in this awards program can be a mechanism to promote student interest in other education or participation programs.

### **Green Teacher**

This magazine is produced by and for educators to enhance environmental and global education at all grade levels. It is produced four times per year and contains approximately fifty pages of ideas, activities, perspective articles, reports of what successful teachers,

parents, and schools are doing, activities for various grade levels, evaluations of new books, kits, games and other resources. Green Teacher may be contacted at P.O. Box 452, Niagara Falls, NY 14304-0452, e-mail: [info@greenteacher.com](mailto:info@greenteacher.com), (416) 960-1244.

## **EElinked Networks**

EE-Link is an on-line environmental education resource guide that can assist educators in locating materials and information for class study guides, activities, and programs that is run by the North American Association for Environmental Education([www.eelink.net](http://www.eelink.net)).

## **Project WET**

Project WET (Water Education for Teachers) is a national nonprofit water education program for educators and young people located on the campus of Montana State University. The goal of Project WET is to facilitate and promote the awareness, appreciation, knowledge and stewardship of water resources through the development and distribution of classroom ready teaching aids and through the establishment of Project WET programs. It is active in all 50 states, the District of Columbia, the U.S. islands and select provinces of Canada.

Certified Project WET facilitators conduct free workshops where educators, community leaders and natural resource managers receive instruction in the use of Project WET materials. A workshop lasts six hours and participants receive the highly acclaimed Project WET Curriculum and Activity Guide. Workshop participants are then encouraged to integrate activities from the Guide into the existing school curriculum or other appropriate forums. This guide is a 500-page publication filled with over 90 innovative, interdisciplinary activities for grades K – 12, most of which are hands-on. Designed to coincide with state and national standards, the Guide addresses the following content areas:

- Water has unique physical and chemical characteristics.
- Water is essential for all life to exist.
- Water connects all Earth systems.
- Water is a natural resource.
- Water resources are managed.
- Water resources exist within social contexts.
- Water resources exist within cultural contexts.

Please contact the Audubon's Environmental Education Center, (401) 245-7500, or Christine Dudley of RIDEM, (401) 789-028, [christine.dudley@dem.ri.gov](mailto:christine.dudley@dem.ri.gov), for more information about this program.

## **Healthy Water, Healthy People**

Healthy Water, Healthy People is an innovative water quality education program sponsored by Project WET and the Hach Scientific Foundation, which offers hands-on activity guides, testing kits, and training. Healthy Water, Healthy People is for anyone interested in learning and teaching about contemporary water quality education topics. The goal of the program is to raise the awareness and understanding of water quality topics and issues and their relationship to personal, public, and environmental health. The program attempts to provide a clear understanding of these relationships, the connection between water quality and land uses, and the process of analyzing and interpreting data. Healthy Water, Healthy People will help educators address science standards through interactive activities that interpret water quality concepts and promote diverse learning styles, with foundations in the scientific method.

The program comes with educator guides for the fourth grade through university level age students as well as testing kits and manuals. The Healthy Water, Healthy People Testing Kits yield in-depth information about eleven water quality parameters. The water quality testing kits include all materials and equipment needed for field and classroom analysis of water samples for chemical, physical, and biological parameters. Healthy Water, Healthy People Testing Kits are available for a variety of parameters, grade levels, skills, and prices.

For more information about the Healthy Water, Healthy People program visit their website at [www.healthywater.org](http://www.healthywater.org).

## **Catch the Science Bug**

Catch the Science Bug was created by Kim Bent as a traveling science program, bringing hands-on science activities to Boston-area elementary schools. The program has since expanded to include most of Massachusetts and a few schools in New Jersey. Kim Bent would be willing and able to bring this program to Rhode Island as well. The program's mission is to excite and educate students about science and how it affects everyday aspects of life. The traveling programs feature interactive inquiry-based methods of presentation to enable students to take part in the learning process. Students learn by predicting outcomes, observing, comparing, experimenting and drawing conclusions through hands-on activities. Appropriate math concepts are also integrated. All programs are designed in accordance with the National Science Standards, the Massachusetts Science and Technology Curriculum Frameworks, and the Benchmarks on the Way to Environmental Literacy.

Catch The Science Bug offers five programs, which range across a variety of science topics. Environmental Programs include:

- “Clean-Up an Oil Spill” This is a two hour program that challenges students to design the clean up of a hypothetical oil spill.
- “All Eyes on Earth” combines four different programs including catch the recycling bug, where do you get your drinking water from, protecting our land and water resources, and contaminant hydrogeology.

- “Watersheds” addresses several topics directly related to storm water pollution prevention. Students learn how to define a watershed using a topographic map and are given different cards describing everyday activities that take place in a watershed. Participants each model a different everyday business or residential activity, which when acted out together, shows how various land-uses affect water quality.
- “Protecting our Land and Water Resources” includes explanation of non-point source pollution and storm water.
- “Where Do You Get Your Drinking Water” addressed pollution prevention and preserving surface water supplies through the use of a model. The model shows different non-point sources of pollution and shows how these sources affect both the ground water and surface water supplies.

These programs are also available to youth organizations such as scouting troops and church groups.

More information about available education programs can be found at [www.catchthesciencebug.com](http://www.catchthesciencebug.com) and by contacting (508) 854-1681 [info@sciencebug.org](mailto:info@sciencebug.org).

### **Rhode Island Envirothon**

This program is a competition for high school aged students that focuses on environmental education and provides scholarships for winning groups. The competition is a part of a national event, for which students prepare during the year to compete in subjects involving environmental issues and natural resource protection. More information can be found at the Rhode Island (<http://www.rienvirothon.org/>) or national websites (<http://www.envirothon.org>).

### **Citizen's Groups**

Several organizations exist that either currently provide public education resources on storm water quality issues or could provide a public outreach avenue in developing storm water awareness and developing partnerships with the public. The organizations that have the best potential to support future storm water education programs in Richmond are the following:

### **Wood-Pawcatuck Watershed Association**

The Wood-Pawcatuck Watershed Association was established in 1894 to promote the integrity of the lands and waters of the Wood-Pawcatuck watershed. The Association works to increase educational awareness of the watershed's ecology and participate in the governance of the watershed in a manner that enhances river resources. Chariho Middle School utilizes the Wood-Pawcatuck Watershed Association website at <http://www.wpwa.org/> to get valuable information about the watershed and current events sponsored by the Association. The Association also gives presentations to students at the Chariho Middle School on water related topics.

The Wood- Pawcatuck Watershed Association is located at 203b Arcadia Road, Hope Valley, RI, 02832. For more information call (401) 539-9017 or contact the Association by email at [info@wpwa.org](mailto:info@wpwa.org).

### **Audubon Society of Rhode Island (ASRI)**

Since 1897, the Audubon Society of Rhode Island (ASRI) has maintained and cherished a century-long tradition of excellence in environmental advocacy, education and conservation. Due to ASRI's efforts, thousands of acres of state land are secure as wildlife refuges and thousands of children benefit from educational programs and nature camps. As environmental problems do not discriminate, the policies and programs of ASRI seek to better the environmental health of Rhode Island and all of its inhabitants by reaching out to children, concerned citizens, and the government. The ASRI has many partnerships including ones with the RI Conservation Districts, RIDEM, USEPA, Woonasquatucket Watershed Council, Water Use Stakeholders Group, Wood-Pawcatuck Watershed Association, Environmental Council, Sierra Club and Clean Water Action.

The ASRI offers many programs at various locations throughout the state. These programs can be adapted to meet the needs of any age group. A few of the applicable student programs offered are:

- “Bay Animals Like It Clean and Salty” which focuses on the Narragansett Bay and how pollution affects the plants and animals that live in it,
- “Watershed Walks” where students will learn the basics about a watershed and of the importance of water. This program includes that sampling of a watershed,
- “Everything’s Connected” which investigates the connections between all living things. The students learn how the earth recycles and our connection to the earth’s health.

The ASRI education staff also offers teacher workshops on various natural science topics. “Project WET, Water Education for Teachers” is a nationally acclaimed workshop, presented by Christine Dudley of RIDEM, which offers teachers and educators free curriculum on ecology, habitats, and environmental issues.

The ASRI with the national Oceanic and Atmospheric Administration (NOAA) and RIDEM also offers education programs through the Narragansett Bay National Estuarine Research Reserve (NBNERR).

The Audubon’s Environmental Education Center is located at 1401 Hope Street, Bristol, RI 02809, (401) 245-7500, and their headquarters are located at 12 Sanderson Road, Smithfield, RI 02917, (401) 949-5454, [www.asri.org](http://www.asri.org).

### **Boy and Girl Scouts of America**

Boys and girls may be involved in Scout programs from ages 5 through 17 and are supervised by adult volunteers. Scouts are involved in various community service projects

and can be beneficial to implementing outfall identification, storm drain marking, and river cleanup projects or environmental awareness outreach programs.

Coordination with local Scout leaders is necessary to implement any activity with their group. The Boy Scouts have eight District Executives that meet monthly to discuss possible projects. Material about potential storm water related projects can be distributed at this meeting and then passed on to troop leaders. The Girl Scouts have Field Coordinators and Service Managers in every town. Information about potential projects can be shared with the Field Coordinators, who will in turn pass the information to the Service Managers and then the troops. Distributing information about the impacts of polluted storm water on our environment, the Town's Phase II program, and the capacity in which Boy and Girl scouts can help their community are the first steps to promote participation.

The Boy Scouts provides its youth with a conservation program designed to be incorporated throughout the Scouting program and teaches awareness and understanding of conservation as a wise and intelligent management of natural resources. The conservation "Good Turn" program is an opportunity for scouts to join with conservation and environmental organizations (federal, state, local, and private) to carry out a conservation "Good Turn" in their home communities. The Boy Scouts also provide an outdoor adventures program of which their "Leave No Trace" policy plays a key role. This principles of this policy include planning ahead (not bringing materials that create waste and knowing the area to be explored), traveling and camping on durable surfaces (not trampling vegetated areas which can lead to erosion), dispose of waste properly (pack out what you pack in, dispose of wastewater far enough from surface water), leave what you find, minimize campfire impacts, respect wildlife, and be considerate of other visitors. A "Leave No Trace Awareness Award" is available to scouts who successfully follow these principles. In Rhode Island, scouts have participated in many activities in their communities including storm drain marking projects and Earth Day cleanups.

The Girl Scouts are offering a partnership initiative called Linking Girls to the Land. This partnership is between the Girl Scouts of the USA and nine natural resource conservation agencies including USDI Bureau of Land Management, USDA Forest Service and USDA Natural Resource Conservation Service. This initiative encourages girls to become involved in conservation and natural resource issues and careers on a national and local level. Most program activities fall into four areas: environmental education; volunteer service; outdoor skills development; and career awareness.

The Water Drop Patch, a facet of Linking Girls to the Land, is a project jointly developed by the United States Environmental Protection Agency and the Girl Scout Council of the Nation's Capital (GSCNC). The participants gain hands-on skills in water management and resource conservation by encouraging the girls to:

- Make a difference in their communities by becoming watershed and wetlands stewards;
- Use their skills and their knowledge to educate others in their community about the need to protect the nation's valuable water resources;
- Explore the natural world to gain an interest in science and math; and
- Use the Internet as a source of information.

For additional information about the Water Drop patch view the project booklet at [www.epa.gov/adopt/patch](http://www.epa.gov/adopt/patch) or by emailing the National Service Center for Environmental Publications at [nscep\\_nepis.tech@epa.gov](mailto:nscep_nepis.tech@epa.gov).

Funding for these can be acquired through the EarthPACT (Plant and Animal Conservation Team), which will award implementation grants to each council for up to \$2,500. The EarthPACT encourages the formation of partnerships with local environmental education, nature, or science-related organizations, business or county government agencies.

The Girl Scouts are also offering a new program called GirlFACTS (Girls, Families, and Communities Together in Science). This program offers two related activities entitled “geology rocks” and “weather wise” which discuss the topics of the water cycle and acid rain. The topics of storm water runoff pollution and prevention could easily be added as a topic to these established programs.

The Girl Scouts of Rhode Island office is located at 125 Charles Street, Providence, RI 02904, (401) 331-4500 or (800) 331-0149 and may be found at [www.gsri.org](http://www.gsri.org).

The Boy Scouts of America Narragansett Council office is located at PO BOX 14777, 10 Risho Avenue, East Providence, RI 02914-0777 and may be found at [www.narragansettbsa.org](http://www.narragansettbsa.org).

### **Southern Rhode Island Conservation District (SRICD)**

Southern Rhode Island Conservation District (SRICD) provides a variety of environmental services such as site plan review, mapping, educator resources and several other services. SRICD assesses hourly and flat fees depending on the program or service. The program of particular interest for this minimum control measure is the Active Watershed Education (AWEsome!) program. This curriculum includes discussion of the following applicable topics:

- **“What is a Watershed?”** demonstrates how water enters and flows through a watershed. Students learn how to read topographic maps and delineate watershed boundaries, and locate locations of interest (i.e., home, school, etc.). They follow the course of a raindrop from its point of impact on the watershed to the exit point as it flows into the ocean.
- **“Water Resources”** demonstrates the importance of ground and surface water. Experiments illustrate how an aquifer supplies water to wells and reservoirs. The session also emphasizes the interconnection between wetlands, groundwater, and surface water.
- **“Effects of Land Use on the Watershed”** uses discussion and demonstrations to illustrate how different land uses impact the watershed. Through the use of a model, students see how infiltration and runoff of rainwater are affected by three different land uses: pavement, row crops and pasture.
- **“Cultural Resources in the Watershed”** introduces the students to the history of the watershed and how land use in the watershed has changed through time. Visitors from local Indian tribes and historical societies provide the students with

different perspectives of how human presence has influenced the landscape, and how water resources have influenced human activities.

- **"Introduction to Water Quality Issues"** uses a current development proposal that could adversely impact the watershed to introduce students to environmental issues. Students are assigned to one of many interest groups supporting various sides of the issue. Students are responsible for contacting their assigned interest group to explore all perspectives of the proposal and its impact on the watershed.
- **"Non-point Sources of Pollution"** defines and identifies major sources of non-point source pollution in the watershed. A discussion of best management practices (BMP's) to control non-point source pollution is followed by a field trip to local farms and shopping areas where BMP's have been implemented.
- **"Farms In The Watershed: A Field Trip"** demonstrates best management practices to minimize non-point source pollution from farms. Students are taken to a variety of farms, including dairy, poultry, turf, and organic vegetable operations.

SRICD's mailing address is PO Box 1636, Kingston, RI 02881 and has a website at <http://sricd.org/>. For more information on SRICD educational programs contact Susan Letendre, Education and Outreach, at (401) 949-1480 or via email at [susan.letendre@ri.nacdn.net](mailto:susan.letendre@ri.nacdn.net).

### **New England Wild Flower Society (NEWFS) and Rhode Island Wild Plant Society**

The New England Wild Flower Society (NEWFS) is the oldest plant conservation organization in the United States, promoting the conservation of temperate North American plants through key programs: Conservation, Education, Research, Horticulture. They do not focus their efforts on any one watershed or town, but are an available resource for New England towns. NEWFS's offers many education programs that are informative to both children and adults. There were 2,000 people register for their fall session. A total of four sessions are offered each year. A portion of their education programs cover wetlands and courses include "Wetland Identification and Delineation," "Wetland Species", and "Vernal Pool Ecology." The Rhode Island Chapter, known as the "Rhode Island Wild Plant Society" is located at P.O. Box 888, North Kingstown, RI 02852. Call (401) 789-7497 or email at [office@riwps.org](mailto:office@riwps.org). Their website is located at [www.riwps.org](http://www.riwps.org).

#### **4.2.3 Regional, State and National Resources**

There are a number of educational resources available for homeowners and businesses such as storm water guidance documents, programs for children, and educator training workshops. Many of the education and outreach materials developed can, in many cases, eliminate the need for Richmond to develop its own materials. Some of the available resources are listed below.

### **U.S. Environmental Protection Agency**

The Office of Wastewater Management (OWM) provides technical resources to persons responsible for designing and implementing BMPs recommended to achieve the goals of the six minimum control measures. These resources are available electronically at USEPA web

sites. While the resources provide some background to the development of the Phase II regulations, they are largely oriented to municipalities and organizations that are developing storm water management plans as opposed to the general public.

The Office of Water has created Adopt Your Watershed, a campaign to encourage citizens and groups to work at protecting and restoring surface and groundwater quality ([www.epa.gov/adopt](http://www.epa.gov/adopt)). The program provides a resource for communities or groups to network with other groups nationwide. This networking and watershed approach can enable a community to share, develop or use successful strategies from existing programs. The resources available include training courses and publications offered by the Watershed Academy to assist with implementing storm water programs. These educational materials can be used by educators, private groups that adopt a watershed, or by municipal employees responsible for implementing the program. The Watershed Academy also offers Academy 2000, an internet-based learning tool for distance learning ([www.epa.gov/owow/watershed/wacademy](http://www.epa.gov/owow/watershed/wacademy)).

### **New England Interstate Water Pollution Control Commission (NEIWPCC)**

New England Interstate Water Pollution Control Commission (NEIWPCC) provides educational programs, promotes participation in water quality restoration programs, and supplies outreach materials. NEIWPCC is involved with many projects in the region that currently includes developing outreach strategies and products for the Narragansett Bay Estuary Program with RIDEM. Highlights of the NEIWPCC offerings are the NEIWPCC website, an Environmental Training Center, youth programs, newsletters such as L.U.S.T.LINE and Water Connection, informational brochures, workshops, and technical advice.

### **American Rivers**

American Rivers is a national, non-profit, conservation organization dedicated to protecting and restoring healthy natural rivers and the variety of life they sustain for people, fish, and wildlife. They provide innovative solutions to improve river health; raise awareness among decision-makers; serve and mobilize the river conservation movement; and are collaborating with their partners to develop a national "river agenda." This will create a unified vision for improving river health across the country. Along with conservation efforts, they promote public awareness about why healthy rivers matter for fish and wildlife, kayakers, canoeists, and anglers, and for our communities as a whole. American Rivers works closely with grassroots river and watershed groups across the country. Staff members also collaborate with other conservation groups, local citizens and businesses, and various federal, state, and tribal agencies to build coalitions and provide technical support. Their website provides educational resources including a Lewis and Clark animation about how the Missouri River has changed, River ABC's for kids and teachers, and a tools and links page. American Rivers has also published a Draft River Threats List and a River Agenda, which is a plan for creating healthy rivers. For more information, please visit [www.amrivers.org](http://www.amrivers.org).

### **Ducks Unlimited**

Ducks Unlimited is a leading waterfowl and wetlands conservation entity in North America. Schools may utilize this organization's website at <http://www.ducks.org/conservation/> to obtain information on land conservation, habitat protection, and wetland protection. The website also provides links to Duck's Unlimited in various states, including Rhode Island. Here, seekers can find information on upcoming events in the State as well as current news related to wetland conservation and similar issues throughout the State.

The Great Lakes/Atlantic Regional Office is the regional office for New England. The office is located at 1220 Eisenhower Place, Ann Arbor, MI 48108. The office can be reached at (734) 623-2000.

### **National Watershed Network (NWN)**

The National Watershed Network (NWN) is a coordinated national effort to encourage the formation of local, voluntary watershed partnerships and help assure that these partnerships successfully attain their goals. More than 70 diverse National Partners representing private and public corporations, government agencies, and non-profit organizations sponsor the initiative. Each National Partner agrees to provide financial and/or in-kind support. The Conservation Technology Information Center (CTIC), a non-profit data and technology information transfer center coordinate the national effort. In addition to maintaining the watershed network, National Watershed Calendar, and many other on-going tools for watershed coordinators, NWN also provides the following:

- Consistent messaging among all National Partners to state and local leaders of organizations, government agencies and companies.
- A connection between National Partners who have useful tools and coordinators of local watershed partnerships.
- A resource to share state activities and successes with state-level stakeholders in other states and regions.
- Encouragement for broad-based state-level partnerships that provide support to local watershed partnerships.
- A way to use and share processes and methods that have been found to work successfully for watershed coordinators.

For more information, please email [ctic@ctic.org](mailto:ctic@ctic.org) or call (765) 494-9555.

### **Natural Resources Conservation Service (NRCS)**

The Natural Resources Conservation Service (NRCS) is a federal agency that works hand-in-hand with the people of Rhode Island to improve and protect their soil, water and other natural resources. For decades, private landowners have voluntarily worked with NRCS specialists to prevent erosion, improve water quality and promote sustainable agriculture. This includes helping landowners develop conservation plans, create and restore wetlands, restore and manage other natural ecosystems as well as advise on storm water remediation, nutrient and animal waste management, and watershed planning. NRCS is also an active participant in the "Year of Clean Water" Observance. NRCS provides has several

educational resources including tip sheets on topics like nutrient management and multi-media information on topics like backyard conservation. Conservation Programs offered and assisted by NRCS include:

- **Environmental Quality Incentives Program (EQIP)** – Provides technical, educational, and financial assistance to farmers to help them comply with environmental laws while encouraging environmental enhancement.
- **Farmland Protection Program (FFP)** – Provides funds to purchase the development rights to farmland, thus preserving quality farmland for agricultural use.
- **Wildlife Habitat Incentives Program (WHIP)** – Provides both technical assistance and cost-share assistance for farmers who want to voluntarily improve fish and wildlife habitat and restore and managing natural ecosystems on their property.
- **Watershed and River Basin Planning and Installation (PL566)** – Provides technical and financial assistance in cooperation with local sponsoring organizations, state agencies, and others for watershed-based projects. NRCS cooperates on projects for watershed protection; flood prevention; water quality improvements; soil erosion reduction; rural, municipal and industrial water supply; irrigation water management; sedimentation control; fish and wildlife habitat enhancement and wetland restorations.
- **Resource Conservation and Development (RC&D)** – Provides local people with the means to solve natural resource problems and promote sustainable use of natural resources in rural areas. The program aims to improve the quality of life by providing practical solutions for community development, land conservation, environmental enhancement and water management.
- **National Resources Inventory (NRI)** – This is a compilation of natural resource information on non-federal land throughout the United States. It captures data on land cover and use, soil erosion, prime farmland, wetlands, habitat diversity, selected conservation practices and related resource attributes at more than 800,000 scientifically selected sample sites.
- **Emergency Watershed Protection Program (EWP)** – It is a disaster recovery program made available in emergency situations when neither the state nor the local community is able to repair a damaged watershed.
- **Earth Team Volunteer Program** – Provides volunteers with opportunities to use their talents on behalf of conservation. Earth Team volunteers do not receive a salary from NRCS but they perform services that are essential to the conservation mission of the agency. Anyone 14 years of age and older can join the Earth Team by calling a local NRCS office.
- **Rhode Island Wildlife Habitat Incentives Program** – Focuses on restoring habitats along coastal features, freshwater wetlands, upland grasslands, and forest edges to restore specific native species and to improve overall biodiversity in these areas.

More information about NRCS can be found at [www.nrcs.usda.gov](http://www.nrcs.usda.gov), while Rhode Island programs can be researched at [www.ri.nrcs.usda.gov](http://www.ri.nrcs.usda.gov) or by calling (401) 828-1300. The office is located at 60 Quaker Lane, Suite 46 in Warwick, RI.

## **Non-point Education for Municipal Officials (NEMO)**

Non-point Education for Municipal Officials (NEMO) is an educational program for local land use officials that addresses the relationship of land use to natural resource protection. They believe that better land use decisions are the key to protecting the natural resources, community character, and long-term economic health of communities. Since proper land use is their focus, the people making land use decisions are the target audience. In the United States, this means local officials serving on land use boards at the county and municipal levels. NEMO provides research-based, non-advocacy professional outreach type education to these municipalities given that the local land use decision-making process is complex, political, and widely varying. Their education supplements state and federal regulations that push for better land use policies and practices. For more information, please visit their website at <http://nemo.uconn.edu/>. In Rhode Island, NEMO is also supported by URI. Please refer to URI's section, later in this document, to learn what NEMO offers within the state.

## **Grow Smart Rhode Island**

Grow Smart Rhode Island seeks to bring together diverse interests to protect and improve Rhode Island's quality of life, economic vitality, and environmental health and the unique physical character created by the state's historic cities, towns, and villages and by its farms, forests and open spaces. They hope to achieve this by promoting business and residential growth in urban and town centers and advancing open land conservation and the preservation of rural character.

To achieve these goals, Grow Smart Rhode Island coordinates and encourages broad community participation in:

- examining the economic, environmental, and social impacts of Rhode Island's current development patterns;
- considering alternative options for development;
- cultivating a common vision for the state's future economic and physical growth;
- advocating programs and policies to achieve that common vision.

Their work is divided into four broad areas: policy analysis and advocacy; public education, and technical assistance; "watchdogging" major public projects; and building the capacity of state and local government to grow smart. This is to encourage responsible government, build strong, livable communities, promote economic growth, renew Rhode Island's traditional pattern of urban, town and village centers, prevent urban sprawl, preserve natural resources, and promote effective transportation systems.

Grow Smart Rhode Island sponsors a variety of informational meetings including "Revitalizing and Renewing Rhode Island: A Statewide Forum Highlighting New Opportunities and Tools for Urban and Town Center Redevelopment."

Grow Smart Rhode Island office are located at 235 Promenade Street, Suite 550 Providence, RI 02908. For more information about this organization and its programs, visit Grow

Smart's webpage at [www.growsmartri.com](http://www.growsmartri.com) or contact Sheila Brush, Program Director, at (401) 273-5711 ext. 3 or via email at [sbrush@growsmartri.com](mailto:sbrush@growsmartri.com).

### **Rhode Island Water Resources Board**

The RI Water Resources Board and the RI Water Resources Board Corporate are established by Chapter §46-15 of the RI General Laws. The General Assembly recognized that Rhode Island's water resources are among the State's most valuable-if not the most valuable-of all its natural resources. Together, these two agencies of government support the proper development, protection, conservation and use of the state's water resources while providing for economic development and protection for the environment.

Working in conjunction with the RI Water Works Association (RIWWA), this agency has promoted education and outreach activities during RI Water Week. Along with RIWWA, staff participates in the State Science Fair each spring judging water supply-related science projects for high school and junior high school students.

The RI Water Resources Board also offers educational programs including The Water for Today and Tomorrow: An Integrated Unit Study for Third Grade Students and The Story of Drinking Water Workbook, which discusses the water cycle and water conservation.

The RI Water Resources Board Administrative Offices are located at One Capitol Hill, Third Floor, Providence, RI, 02908. The RI Water Resources Board may be contacted at (401) 222-4890.

### **Environment Council of Rhode Island (ECRI)**

The Environment Council of Rhode Island (ECRI), the Rhode Island affiliate of the National Wildlife Federation, is an association of groups and individuals that includes the Southern Rhode Island Conservation District, Save the Bay, Rhode Island Public Research Interest Group, and many others. They have established the ECRI Education Fund (EdFund) to "enhance the long-term stewardship of Rhode Island's natural resources." EdFund solicits and manages government and foundation grants to support its research and education initiatives that include developing media and programs to educate the public about environmental health and natural resource restoration.

ECRI may be contacted at P.O. Box 9061, Providence, RI 02940, (401) 621-8048 [www.environmentcouncilri.org](http://www.environmentcouncilri.org).

### **University of Rhode Island (URI)**

There are several outreach programs offered by University of Rhode Island's (URI's) Cooperative Extension Service that may be beneficial to the Town for its storm water education and outreach program. The university's programs include:

- **URI Non-point Education for Municipal Officials.** This program offers training in the science, management, and regulation of water resources for community leaders

and volunteer board members. Its goal is to provide decision makers with the skills and resources to identify local water quality problems and to adopt effective pollution controls. Educational programs are offered throughout the year, ranging from evening or one-day workshops to intensive, small group trainings that are tailored to meet the participants' interests and needs. Most programs can be brought to the municipality. Events are conducted in partnership with State planners and regulators, consulting professionals, the University community, and citizen groups. For more information contact Lorraine Joubert, URI NEMO at (401) 874-2138 or refer to their website at [www.uri.edu/ce/wq/nemo](http://www.uri.edu/ce/wq/nemo).

- **Rhode Island Home\*A\*Syst.** A consortium of educational projects in twenty-five states, this project focuses on educating and training residents in the community on environmental and health risks inside and outside their homes. The program includes topics on storm water management, hazardous material storage and handling, and yard and garden care. Informational materials are also available in the form of books, displays, educational models, fact sheets, and workbooks. Contact information: URI Cooperative Extension, Department of Natural Resources Science, 001D Coastal Institute, 1 Greenhouse Road, Kingston, RI 02881, (401) 874-5398 ([www.uri.edu/ce/wq/has/index.htm](http://www.uri.edu/ce/wq/has/index.htm)).
- **GreenShare.** This program provides training through seminars and workshops for professionals in the retail and service sectors of the landscaping industry at the Cooperative Extension Education Center (CEEC). Topics on environmentally sound methods of managing insects and diseases in urban and suburban landscapes are discussed at CEEC and its demonstration gardens. Target audiences include growers, landscapers, garden centers, and homeowners. GreenShare uses newsletters, newspapers, and television to communicate with the public ([www.uri.edu/ce/factsheets/index.htm](http://www.uri.edu/ce/factsheets/index.htm)). The Cooperative Extension Education Center is located at 3 East Alumni Avenue, Kingston, RI 02881, (401) 874-2900.

### **URI Watershed Watch Program (URIWW)**

The University of Rhode Island Watershed Watch Program (URIWW) works with local governments, watershed, tribal, and other organizations to assess water quality by recruiting and training volunteers to become citizen scientists. They offer several training programs with their main focus on performing water quality monitoring. These programs provide training, equipment, supplies, and analytical services to volunteers who record measurements and observations of water quality indicators on a weekly basis. Individual programs are outlined below.

The Water Quality Monitoring Program is a statewide volunteer sampling program. Trained monitors collect weekly measurements to provide current information on the water quality of surface water resources. The program emphasizes watershed scale monitoring to demonstrate how the water quality of surface water is impacted by the activities in the lands and waters upstream. Water quality monitoring requires one to two midday hours per week during most of the monitoring season (late April to early November) and a boat, if necessary, to get to the monitoring location. No prior experience is required and URIWW provides classroom and field training, equipment, supplies, and analytical services.

Monitoring includes measuring the water clarity, surface and deep-water temperature, dissolved oxygen, chlorophyll analysis, and additional lab analysis.

URIWW also offers three supplemental training programs as part of their water quality program. These can be done independently, but are commonly done in conjunction with water quality monitoring. The Shoreline Survey Training teaches participants to observe water quality, natural and constructed features, identify sources of pollution, and how to record observations on large scale maps and standardized data sheets while along a section of the shore. Following training volunteers complete a survey and report results to the sponsoring organization approximately three times a year.

Aquatic Plant Identification and Mapping is a multi-session training course on identifying and mapping New England aquatic plants using field keys. Plant bed assessment and mapping are also taught. Aquatic plant monitoring is mainly performed in ponds, lakes, and reservoirs either annually or semi-annually during the mid to late summer.

Tributary Monitoring and Habitat Assessment is a multi-session training course on conducting intensive habitat assessments and monitoring of streams and rivers. Participants learn to observe water quality, natural and constructed stream features, identify various types of riparian habitats, measure stream flow, and how to record observations on maps and standardized field data sheets. This program follows the protocol established by the USEPA in Volunteer Stream Monitoring: A Methods Manual (USEPA 841-B-97-003). After the training, volunteers complete assessments and report observations, often in conjunction with water quality monitoring.

The cost of each of these trainings and the water quality monitoring program varies but is often covered by a sponsor. More information about the URIWW Program is available on their <http://www.uri.edu/cc/wq/ww/index.htm>. Interested individuals should contact either Linda Green, Program Director, at (401) 874-2905 or [lgreen@uri.edu](mailto:lgreen@uri.edu) or Elizabeth Herron, Program Coordinator, at (401) 874-4552 or [emh@uri.edu](mailto:emh@uri.edu).

## **Give Water a Hand**

This is a national watershed education program of the University of Wisconsin Environmental Resources Center. Support for Give Water a Hand is provided by National Fish and Wildlife Foundation, the U.S. Department of Agriculture, Cooperative State Research, Education, and Extension Service (CSREES) and NRCS designed to involve young people in local environmental service projects ([www.uwex.edu/erc/gwah](http://www.uwex.edu/erc/gwah)). The program provides guidance to students on how to complete an environmental service project and the basic information necessary to understand their watershed. Free guides are available on the internet, but printed copies require printing and shipping fees. The publications are the youth Action Guide (also in Spanish) and the teacher's Leader Guidebook.

## **Adopt Your Watershed**

As described in the public education and outreach section of this report, the USEPA has created this campaign to encourage citizens and groups to work at protecting and restoring surface and groundwater quality in their watershed. The networking and training resources available from this program can help educators, communities, or private citizens improve water quality and implement their local storm water program through education and participation.

## **Rhode Island Forest Conservators Organization (RIFCO)**

Educates, represents, and provides resources for sharing information for forest management focusing on private landowners. The RIFCO develops and is involved with programs that include outreach for open space, technical assistance for proper management of woodlands, development of state manuals and guidelines, review of legislation affecting management of woodlands, and demonstration projects. More information is available on their website at <http://www.rifco.org/>.

## **Rhode Island Forest Consortium Organization**

This organization is a non-profit that focuses on sustaining forest land specific to the conditions in the more densely populated portions of Rhode Island. The organization provides services that are aimed at educating and providing resources for privately owned forest land. Several publications and resources are available. More information is available on their website (<http://www.rifco.org>).

## **Implementation Alternatives**

The following items may be implemented as resources become available, as the need arises, or if required to become part of the Phase II Storm Water MS4 General Permit program:

- Develop an Adopt a Street/Stream program to provide continuous cleanup efforts for areas of particular debris build up. Provide participating business and groups with publicity for their efforts including listing on the Town's website and signage for display within their organization.
- Coordinate with existing regional organizations to discuss enhancing their recruiting efforts and targeting specific storm water related issues in Hopkinton.
- Use volunteers from the community and local organizations for simple tasks that would improve water quality as well as raise the public's awareness. Public participation will enhance the public education component of the storm water program with the following tasks:
  - Stencil or otherwise mark catch basins with informational phrases such as, "NO DUMPING, DRAINS TO WETLANDS."

- Assist with installing and operating kiosks.
- Identify outfalls to Town waters.
- Clean-ups along recreational waters.
- Create local speakers panel to discuss the Town's storm water program and pollution prevention with targeted residents and businesses. Broadcast the discussions over a local cable station just as Town Council Meetings are broadcasted on the local television station. The Town should consider contacting URI for possible speakers. The Town officials could be used for these speaking opportunities. Below are some sample speaking opportunities:

Y Water in my Community: Drinking water, Storm water, and Sewage – DPW  
 Y Municipal Government and Storm Water – Town Planner  
 Y Municipal Government and Illicit Discharge Detection – Town Planner; DPW  
 Y BMPs in your Community: Form and Function – DPW  
 Y Preventing Soil Erosion – Town Planner; DPW  
 Y You, Your Pet, and Your Water – DPW  
 Y Preservation of Open Space – Town Planner  
 Y Sound Tree and Shrub Management – Tree Warden  
 Y Your Land in Trust – Preserving Hopkinton's Open Space – Rural Preservation Land Trust

- Expand the Town's current municipal website to include information pertaining to volunteering opportunities either through the Town itself or contact information for other organizations serving the area. The website should also include a copy of this Storm Water Management Plan, notices of upcoming cleanup events (including those sponsored by groups other than the Town) and information regarding waste removal.

Specific tasks that could be completed as part of the public participation program include:

- Establish "neighborhood watershed" groups to encourage protection of surface waters and report spills and illegal dumping.
- Inventory storm water outfalls within the first year of this plan. This can be done through school programs if resources are accessible.
- Establish partnerships with local businesses or community groups to remove litter from portions of streets and watercourses.
- Speak with members of the Wood-Pawcatuck Watershed Association about what role, if any, they may want to take in public participation and involvement.

- Contact the local Senior Center to see what activities or programs they may be able to participate in or contribute to the efforts to protect local waters.
- Recruit volunteer educators to speak to business and industry owners through workshops. Local professionals may wish to contribute their time or resources for this task. URI may be contacted for possible speakers.
- Recruit local high school students to serve as environmental stewards for younger students. Coordinate with local community service programs and offer incentives to volunteers such as media recognition or trips to environmental science fairs.
- Contact the NRCS in regards to their Earth Team Volunteer Program for community environmental service projects.

## Appendix E

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### Education and Outreach Material

# 10 THINGS YOU CAN DO TO IMPROVE WATER QUALITY IN RHODE ISLAND



There are many streams and rivers that flow through our backyards and drain into ponds, lakes, bays and ultimately the ocean. Pollutants such as animal feces, fertilizer, oil, hazardous waste, road sand, and grease on the land can be washed into our waters, but we can reduce this type of pollution. Here is a list of 10 things you can do to help clean our local waterways.



**1. Learn about** your local waters. Everyone lives in a **watershed**, which is the drainage area to a local waterbody (think of washing everything in a sink down the drain and the drain is your local river or stream). Figure out what waters are closest to you and where they flow. Learn about local animal life and plants that live in and around these waters. Check out DEM's website to find out more about your watershed at [www.state.ri.us/dem/topics/water.htm](http://www.state.ri.us/dem/topics/water.htm)



**2. Don't feed ducks!**

Although you may enjoy feeding geese, ducks, gulls and other waterfowl, remember that they too contribute to the same type of pollution that limits swimming and shellfishing. One bird dropping can contaminate 10,000 gallons of water. Bread and other human food are bad for bird's digestive tracts too. Feeding

waterfowl can also attract larger bird populations and may cause some birds to stop migrating.



**3. Pick up** after your pets. Dog waste and feces from other warm-blooded animals pollute local waterways and are larger polluters than you may think. This type of pollution contributes to the closing of beaches and shellfish beds all over the state. Pick up your pet's waste and deposit it in a trash can.



**4. Inspect septic** systems. Approximately 1/3 of the state uses some form of septic system for sewage disposal. Failing septic systems or cesspools are a major source of pollution to ground water and local reservoirs. What you flush directly affects the water we drink and the waters where we fish, swim and boat. If you have a septic system inspect it regularly, pump and repair it as needed. If you have a cesspool, replace it. For more information on maintaining a healthy septic system the **Septic System Checkup Handbook** is available online at [www.state.ri.us/dem/pubs/regs/regs/water/isdsbook.pdf](http://www.state.ri.us/dem/pubs/regs/regs/water/isdsbook.pdf) or call for a copy at 222-6822.



**5. Avoid over-fertilizing** your lawn. During rain storms, **nutrients** from lawn fertilizer can be washed off lawns and paved areas into local waters. This type of pollution contributes to **eutrophication**, a process that causes nuisance algal blooms and

reduction of habitat and oxygen levels for many aquatic organisms. This leads to a decline in fish and shellfish populations, and reduces the diversity of fish in our waters. Get your soil tested to see if it really needs more fertilizer and if so, use as little as necessary. Read the label on fertilizer packages, apply according to directions, and clean-up any fertilizer left on paved areas. Also, reduce your lawn area by planting native, more drought-tolerant plants that are better adapted for the environment, and can act as buffers to prevent runoff from your lawn. For more information and fact sheets, log onto the **University of Rhode Island Cooperative Extension Home\*A\*Syst** website at [www.uri.edu/ce/wq](http://www.uri.edu/ce/wq).



**6. Minimize** the use of hazardous products and **recycle** as much as possible. Cleaning and other household products contain many hazardous chemicals. Try to use the least harmful products available. Learn how to dispose of household hazardous chemicals properly by calling the **RI Resource Recovery program** at 942-1430 x 241 or visit them online at [www.rirrc.org](http://www.rirrc.org). The RIRRC website also has recycling information. Recycling helps to conserve natural resources and reduces the amount of refuse sent to landfills. Start a compost bin and buy products made with or packaged in recycled material to reduce waste further. Consult your town for **recycling** guidelines and check the RIRRC website listed above.



## 7. Get involved. Volunteer.

Help with clean-up efforts or be a volunteer water monitor. Participate in local activities that benefit the environment. Find out if there is a watershed council near you. A list is available on DEM's website at [www.state.ri.us/dem/topics/water.htm](http://www.state.ri.us/dem/topics/water.htm). If your watershed does not have an association, start one! Other statewide non-profit organizations also need volunteers. For more information check out the websites for Save the Bay at [www.savebay.org](http://www.savebay.org) and URI's Watershed Watch at [www.uri.edu/ce/wq/](http://www.uri.edu/ce/wq/). Every little bit you do counts! **Speak out.** Attend public meetings that pertain to water quality. Your participation makes the statement that your community is concerned about local waterways. Public involvement is imperative if your local and state public servants are to help you make large-scale improvements in your watershed. If you see a problem in your area or want something done, say something! If you don't have time to attend meetings, call or contact a city or town official, a state representative, or DEM.



**8. Conserve water.** If you are connected to a public sewer, conserving water will help reduce the discharge from your wastewater treatment facility into local waters. Water conservation helps prevent septic system failures. To learn more about conserving water, visit the RI Water Resources Board at [www.wrb.state.ri.us](http://www.wrb.state.ri.us).



**9. Pump it, don't dump it!** If you own a sailboat or a motorboat have your holding tank emptied at one of the local pumpout stations around Rhode Island. For a list of **pumpout locations** call 222-3961 or visit [www.state.ri.us/dem/maps/static/pumpmap.jpg](http://www.state.ri.us/dem/maps/static/pumpmap.jpg). Also, if you have an old engine on your motor boat, look into updating it to a new 2-cycle or 4-cycle engine. They are cleaner for the environment and more efficient, which means they are lighter on your wallet!



**10. Get out!** Get out on the water. Swim, sail, surf, kayak, fish, windsurf, boat, shellfish, go birding or walk along the shore. Explore the waters near your home or visit other parts of the state. For information about beach closures, contact the Department of Health **Beach Hotline** at 222-2751 or online at [www.health.state.ri.us/topics/bathing.htm](http://www.health.state.ri.us/topics/bathing.htm). For information on **shellfish bed closures**, call DEM at 222-3961. Make it a point to enjoy the benefits of living near the water, and while you're out there keep an eye out for problems or pollution sources. **To file an environmental complaint with DEM** (which can be anonymous), call: 222-1360.

Rhode Island Department of Environmental Management  
Office of Water Resources  
235 Promenade Street, Providence, RI 02908-5767  
Phone (401) 222-6800  
[www.state.ri.us/dem/](http://www.state.ri.us/dem/)



V. Masson April 2003

# 10 SIMPLE THINGS YOU CAN DO TO HELP CLEAN RHODE ISLAND WATERS



Forty percent of Rhode Islanders get their drinking water from groundwater or small local reservoirs. Outdoor cesspools and failing septic systems are a major source of pollution to these water supplies. When you flush down your toilet directly affects the water you drink and the waters you fish, swim, and boat in.

## CONVENTIONAL SEPTIC SYSTEMS

When properly designed, installed, and maintained, septic systems help keep your water supply safe. They replenish groundwater, and they are considered a permanent disposal option. All septic systems need regular maintenance. It is much less expensive to keep them operating properly through regular inspections and pumping than to replace them if they fail. With proper care a conventional septic system can be long lasting and cost effective.

There are two major parts to a conventional septic system

### THE SEPTIC TANK

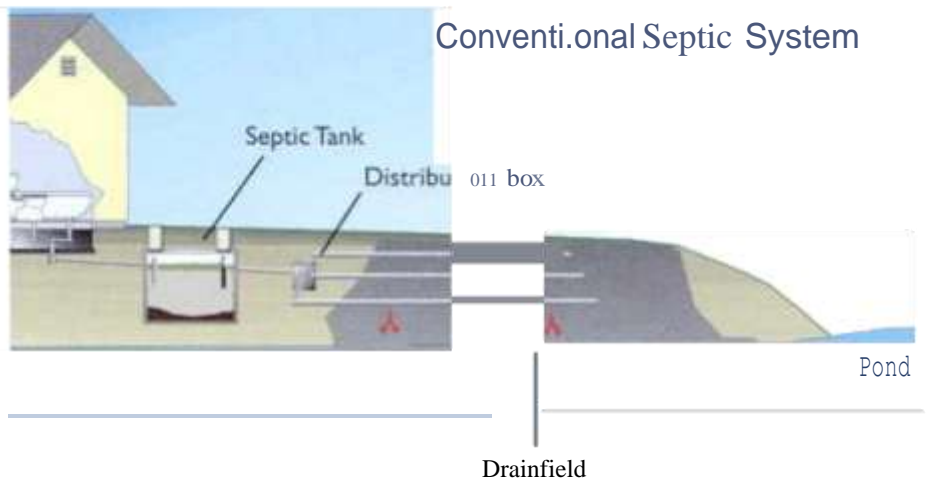
The septic tank separates solids from liquid before sending wastewater to the drainfield. A layer of sludge settles at the bottom and a layer of scum forms at the top, so only the clearest wastewater goes into the ground. Keeping solids in the tank and out of the drainfield is the best way to prolong system life.

Modern Tank features include:

- Water tightness, solids gradually build up and must be pumped out regularly.
- Access risers allow easy entry for inspection and pumping.
- A low cost effluent filter to help keep solids in the tank and protect your drainfield.

What YOU can do.

- Inspect your septic system regularly
- Pump and repair it as needed
- If you have a cesspool, plan to replace it

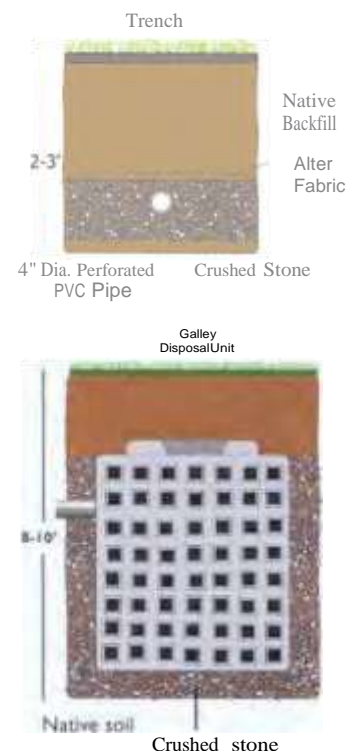


### THE DRAINFIELD

Drainfields distribute the wastewater to the soil. Two types commonly used are disposal trenches and leaching chambers.

A Trench-type drainfield consists of two or more parallel stone-lined ditches, each with a perforated pipe that allows incoming liquid wastewater to seep into the soil. A distribution box located between the tank and the drainfield splits wastewater flow to the different lines.

Leaching chambers are bottomless concrete box-like structures with open, grated sides. Two types are commonly used. "Galley" units are 4ft. x 4ft. x 4ft. units installed as deep as 10 feet below ground. "Flow diffusers" are shallow 8ft. x 4ft. x 18in. units. Both types of seepage pits are generally installed in a series of three or more. Liquid effluent flows directly from the tank into the seepage pit where it seeps out the side walls and bottom.



## ALTERNATIVE SEPTIC SYSTEM

New technologies treat wastewater before it reaches groundwater. These alternative systems provide one or more extra treatment steps than conventional systems. Enhanced treatment systems offer solutions for difficult sites and environmentally sensitive areas.

## CESSPOOLS

A cesspool is nothing more than a covered pit that receives wastewater and allows it to drain into the surrounding soil. This might be a stone-walled pit, perforated concrete chamber, or leaking steel tank. Although still in common usage, cesspools don't treat wastewater. Solids and liquids seep directly through the soil into the groundwater. This poses a threat to surrounding bodies of water and nearby wells. Not sure what's in your backyard? Chances are you have a cesspool or other substandard system if your house was built before 1970.

## FAILING SEPTIC SYSTEMS

Septic systems fail when wastewater is unable to seep into the ground. Common causes of failure are:

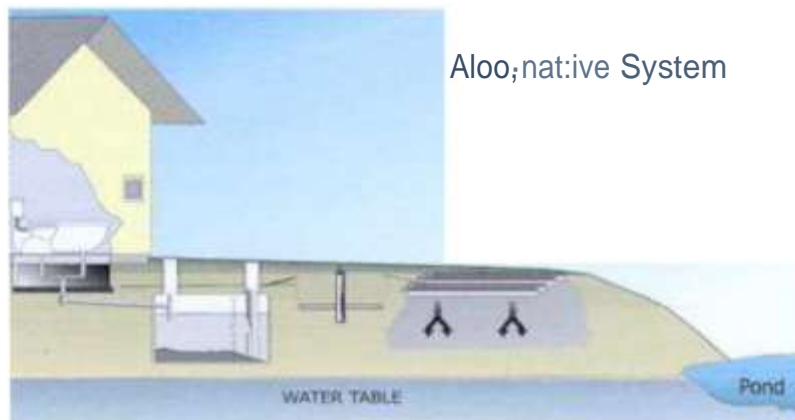
- Overloading with too much water.
- Improper disposal of solids or grease.
- Tank full of solids, drainfield clogged with solids.
- High water table flooding the drainfield.
- Broken pipes, tree roots disrupting system, or other damage.

*Your system may be foiling if you have:*

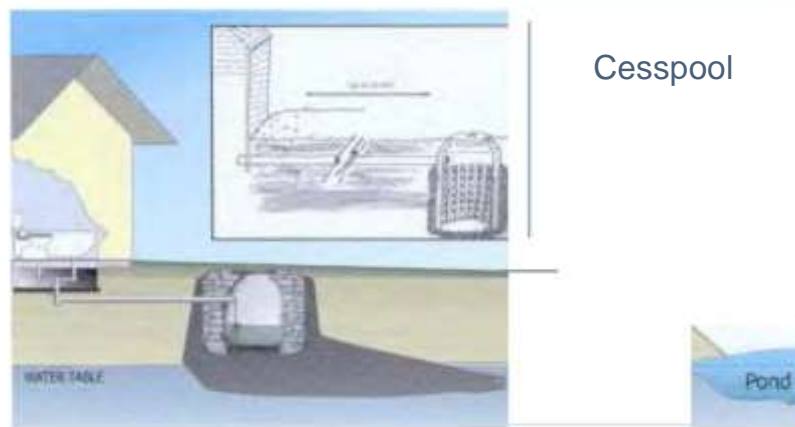
- Sluggish drains or odor
- Wastewater backups into house
- Squishy patches above drainfield
- Lush grass above drainfield

Even if you don't notice any problem, your system can still be polluting groundwater. In very sandy or wet soils wastewater may reach the groundwater too quickly. Leaking tanks or broken pipes allow wastes to seep into groundwater without treatment.

Even new systems can fail due to faulty design or poor installation. Common causes are use of unwashed stone or poor-quality gravel fill, improperly sealed tank seams and plugs, and soil compaction or structural damage by heavy equipment driven over the system.



Alternative System



Cesspool



Failing Septic Systems

## FIND OUT WHAT'S IN YOUR BACKYARD

To keep drinking water safe, and maintain property values, many RI towns require regular system maintenance. Financial assistance may be available for repairs. Contact your town hall to learn more. For technical information contact URI Cooperative Extension at 401-874-4558/5950 or <http://www.uri.edu/ce/wq>.

Cooperative Extension in Rhode Island provides equal opportunities in programs and employment without regard to race, color, national origin, sex, or preference, creed or disability. This publication is supported by URI Cooperative Extension, College of the Environment and Life Sciences, University of Rhode Island. Partial funding for this project provided by CSREES, Project 92-EWQI-1-1040, and the EPA Block Island/Green Hill Pond Watershed National Community Decentralized Wastewater Treatment Demonstration Project, Clean Water Act section 319, and the RI Department of Environmental Management.

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11/01

## Private Wells

If you have a private well as a drinking water source, water quality testing should be important to you and your family.

Some contaminants in drinking water have been linked to cancer and toxicity, posing a risk to human health. Many contaminants often have no taste, odor, or color. Their presence can only be determined by laboratory testing.

While testing is required only at the time of sale of properties with non-public wells, the Rhode Island Department of Health (HEALTH) recommends that all homeowners with private wells test their water regularly. Testing should be performed at a laboratory licensed by the State of Rhode Island.

## Contamination of Wells

Well water originates as rain and snowmelt that filters into the ground. As it soaks through the soil, the water can dissolve contaminants that are present on or in the ground.

Some contaminants are naturally occurring from features found in the rocks and soils of Rhode Island. These include substances like bacteria, radon, beryllium, arsenic, uranium, and other minerals.

Other contaminants find their way onto the land from human activities. On a large scale, industrial/commercial activities, improper waste disposal, road salting, and fuel spills can introduce hazardous substances to the ground.

Many residential activities, such as the use of fertilizers and pesticides, fueling of lawn care equipment, and disposal of household chemicals can contaminate the ground when done improperly. An improperly maintained on-site residential septic system can pose a threat to your well. That is why taking measures to protect your well from contamination is so important.

## Recommended Tests

The following tests identify common contaminants found in our state's well water. Although more tests could be added, this list provides a cost-effective, reasonable overview of a well's water quality. *It is not necessary to do all of these tests at one time.*

### • Standard Analysis

This basic analysis covers the most common contaminants. Some of these contaminants pose health-related concerns while others only affect aesthetics (taste and odor).

### • Naturally Occurring Radioactive Elements

Dissolved radon is a common well water problem. Presently, there are no federal or state standards for radon in drinking water, only suggested action levels. HEALTH estimates that most private wells in Rhode Island exceed the suggested action levels, so testing for radon is important. Because the dissolved radon gas is released to the air during normal water use, you should consider checking your indoor air radon levels as well.

## Contaminants & Testing Frequency

### Standard Analysis Testing Frequency

- |                  |               |
|------------------|---------------|
| •Bacteria        | Yearly        |
| •Nitrate/Nitrite |               |
| Sodium           |               |
| •Fluoride        | Every 3-5 yrs |
| •Iron            |               |
| •Lead            |               |
| •Manganese       |               |
| pH               |               |
| -Turbidity       |               |

•Minimum requirements for property transfer.

- |       |                |
|-------|----------------|
| Radon | Every 3-5 yrs  |
| VOCs  | Every 5-10 yrs |

Naturally occurring radioactive minerals, such as radium and uranium may be dissolved in well water. A Gross Alpha Screen is a simple test to judge whether further testing for radium or uranium might be needed.

### • Volatile Organic Compounds (VOCs)

The most common VOCs come from gasoline compounds (such as MTBE and benzene) and industrial solvents. MTBE can be found in well water even in remote areas.

### • Additional Tests

Circumstances relative to your well may require additional testing not described here. For instance, HEALTH does not recommend routine testing for things like pesticides, herbicides, or synthetic organic compounds, mainly because of the high cost. However, such testing may be warranted, depending on where you live.

In deciding what additional tests to do, it is best to understand the history of land use at your property and the abutting properties. You may wish to inquire with neighbors, town officials and state agencies. This will help you to focus your list of the less routine items to test.

The less-routine tests may not be performed at all laboratories.

## When To Test

Recent regulations (still under development) require prospective homebuyers to test the water in a home with a private well before purchase.

Water quality in wells is generally stable, and if a change is going to occur, it occurs slowly. Thus the interval between water quality tests can be once per year for some items and less frequently for others (see chart), provided the well is properly constructed and located in a safe area.

However, the following conditions would prompt more frequent testing:

- Heavily developed areas with land uses that handle hazardous chemicals.
- Recent well construction activities or repairs. HEALTH recommends taking a bacterial test after any well repair or pump or plumbing modification, but only after disinfection and substantial flushing of the water system.

• Contaminant concentrations above state or federal standards found in earlier testing.

- Noticeable variations in quality -- e.g. water quality change after a heavy rain or an unexplained change in a previously trouble-free well (i.e. funny taste, cloudy appearance, etc.).

When taking any sample, HEALTH recommends that it be taken after a heavy rainstorm. These events tend to highlight conditions of improper well construction or poor soil filtration.

## What the Tests Tell You

Results will reveal the level at which any of the tested substances were found in your water sample. The mere presence of contaminants in well water does not necessarily imply that there is a problem. However, when levels exceed state or federal health standards, you should take steps to correct the situation.

You should contact a licensed well driller/pump installer for any well repairs or replacement. Several methods are available from commercial contractors to treat contaminated water. HEALTH has links to informational documents on the web concerning all common water quality problems and their solutions.

## For More Information

RI Dept. of Health  
Office of Drinking Water Quality  
3 Capitol Hill - Room  
209  
Providence, RI 02908-5097  
(401) 222-6867

**[www.health.ri.gov](http://www.health.ri.gov)**

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# Protect Your Family

• **Test Your Well's  
Water Quality  
Today**

**A Guide to Water  
Quality Testing for  
Private Wells in  
Rhode Island**

Department of  
HEALTH



UNIVERSITY OF  
Rhode Island

U.S. Environmental Protection  
Agency New England  
EPA 901-F-04-002B February 2004



# Stormwater Pollution Found in Your Area!

This is not a citation.

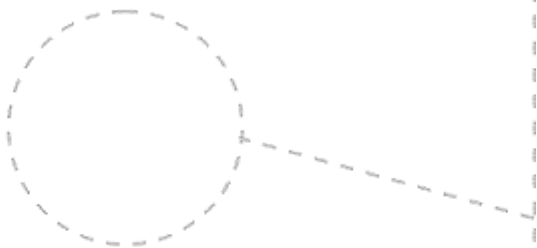
This is to inform you that our staff found the following pollutants in the storm sewer system in your area. This storm sewer system leads directly to

- 
- ☐ Motor oil
  - ☐ Oil filters
  - ☐ Antifreeze/  
transmission fluid
  - ☐ Paint
  - ☐ Solvent/degreaser
  - ☐ Cooking grease
  - ☐ Detergent
  - ☐ Home improvement waste (concrete,  
mortar)
  - ☐ Pet waste
  - ☐ Yard waste (leaves, grass, mulch)
  - ☐ Excessive dirt and  
gravel
  - ☐ Trash
  - ☐ Construction debris
  - ☐ Pesticides and  
fertilizers
  - ☐ Other
- 



For more information or to report  
an illegal discharge of  
pollutants, please call:





Stormwater runoff is precipitation from rain or snowmelt that flows over the ground. As it flows, it can pick up debris, chemicals, dirt, and other pollutants and deposit them into a storm sewer system or waterbody.

Anything that enters a storm sewer system is discharged *untreated* into the waterbodies we use for swimming, fishing, and providing drinking water.

## Remember: Only Rain Down the Drain

To keep the stormwater leaving your home or workplace clean, follow these simple guidelines:

- Use pesticides and fertilizers sparingly.
- Repair auto leaks.
- Dispose of household hazardous waste, used auto fluids (antifreeze, oil, etc.), and batteries at designated collection or recycling locations.
- Clean up after your pet.
- Use a commercial car wash or wash your car on a lawn or other unpaved surface.
- Sweep up yard debris rather than hosing down areas. Compost or recycle yard waste when possible.
- Clean paint brushes in a sink, not outdoors. Properly dispose of excess paints through a household hazardous waste collection program.
- Sweep up and properly dispose of construction debris like concrete and mortar.



# K Our StreaJ'U£

# C!



*Storm Drains  
lead to fresh water!*

## — Street LiHer, Plastics, and Leaves

Be mindful of litter, NEVER throw litter down into storm drains. Keep catch basins free of debris and leaves.

## — Fertilizers

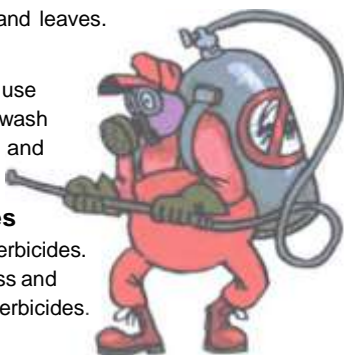
Avoid use of fertilizers. If needed, use organic fertilizers. Sweep, do not wash any fertilizers or soil off driveways and walkways.

## — Pesticides and Herbicides

Minimize use of pesticides and herbicides. Use natural alternatives. Trim grass and remove weeds by hand without herbicides.

## — Pet Waste

Dispose of pet waste by flushing it down the toilet, burying it, or discarding it into a plastic bag and place in your trash.



## — yard Waste

Do not allow soil, leaves or grass clippings to accumulate on your driveway, sidewalk or in the street. Compost yard waste and use on your soil.

## — Motor Oil

Never pour used motor oil down the drain. Take it to a local service station to be recycled.

## — Anti-Freeze

Take used Anti-Freeze to a service station for recycling.

Never mix Anti-Freeze with any other substance.



## — Paint

Donate old paint to local groups. Dispose of oil and lead based paints at the designated household hazardous waste collection center, Bondi's Island Landfill. Appointments are available by calling 787-7840.

## — Household Hazardous Waste

Do not pour hazardous waste down any drain or discard with regular trash.

Contact your Springfield Solid Waste Office (787-7840) to learn how to properly dispose of hazardous waste. Use natural or less toxic alternatives.



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Drive11 tel Help  
You Protect  
the Roads  
Yotl Love.

THE BEST ROUTE TO PRESERVING OUR SCENIC ROADWAYS

Some of Rhode Island's greatest treasures are our highways and byways. Although their scenic quality is easily appreciated by anyone, many people do not appreciate how fragile their beauty can be – or what they can do to safeguard these roadways for the future.

The Scenic Roadways program provides a way for local residents, business people or civic leaders to preserve the roads they love, while protecting the rights of property owners. Established by statute in 1985, the 11-member Scenic Roadway Board's expertise in conservation, historic preservation, transportation design, government and private development has helped many groups and individuals around Rhode Island conserve and enhance the scenic character of their roads.

Although the program is designed to answer the needs of concerned individuals, having a street designated as a scenic roadway often raises many questions. Here are the facts you need to make an informed decision.

WHAT IS A DESIGNATED SCENIC ROAD?

These are roads that have both scenic value and local support for their preservation. Any road that possesses natural, historical, cultural or overall visual interest is eligible for this designation.

WHAT ARE THE ADVANTAGES OF SCENIC ROADWAY DESIGNATION?

- Gives local communities more of a say about tree trimming, highway and bridge construction, the widening of travel lanes and other matters.
- Provides access to the Scenic Roadway Board's resources.
- Helps preserve property values.
- May qualify the road to receive federal grants to carry out enhancement projects.

WHAT CAN THE SCENIC ROADWAY BOARD DO TO PROTECT A ROAD?

- Reviews all changes to designated roads.
- Controls tree-trimming and other work
- Develops a local "stewardship" plan for the road.
- Offers expertise and technical assistance to property owners.

DOES THIS DESIGNATION LIMIT THE RIGHTS OF PROPERTY OWNERS IN ANY WAY?

No. Property owners continue to be free to make their own decisions about their property, without having to receive permission from the Board. Scenic Road Designation also does not affect land use, which is controlled exclusively through town zoning.

WHAT ABOUT ROAD SAFETY?

Scenic designation does not change the need for the road to be safe, but the Board will review all construction for highway improvements.

WHAT IS THE APPLICATION PROCESS?

Applications for scenic roadway designation are submitted to the RI Scenic Roadways Board. Anyone may prepare the nomination form, but only your city or town government can submit the formal application.

FOR MORE INFORMATION

For application forms, information about the many scenic roads in Rhode Island or complete details about the Rhode Island Scenic Roadways Program, please contact us today. We'll go the distance to help you protect and enjoy the roads you love.

Scenic Roadways Coordinator  
Design Section  
RI Department of Transportation  
Two Capitol Hill  
Providence, RI 02903  
(401) 222-2023

As stormwater flows over driveways, lawns, and sidewalks, it picks up debris, chemicals, dirt, and other pollutants. Stormwater can flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water. Polluted runoff is the nation's greatest threat to clean water.



By practicing healthy household habits, homeowners can keep common pollutants like pesticides, pet waste, grass clippings, and automotive fluids off the ground and out of stormwater. Adopt these healthy household habits and help protect lakes, streams, rivers, wetlands, and coastal waters. Remember to share the habits with your neighbors!

## Healthy Household Habits for Clean Water

### Vehicle and Garage

- Use a commercial car wash or wash your car on a lawn or other unpaved surface to minimize the amount of dirty, soapy water flowing into the storm drain and eventually into your local waterbody.



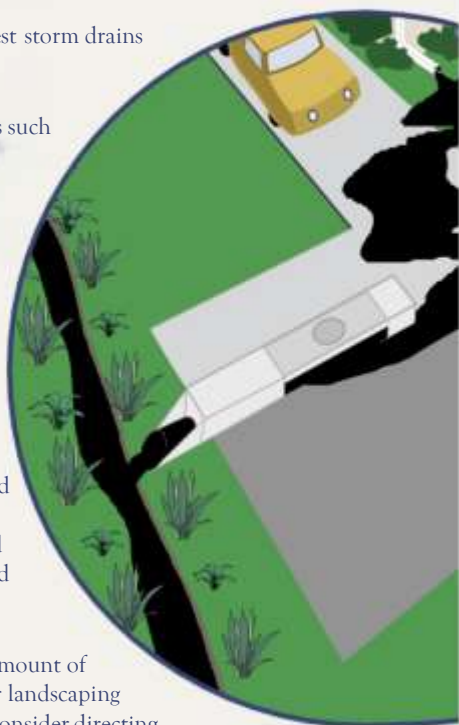
- Check your car, boat, motorcycle, and other machinery and equipment for leaks and spills. Make repairs as soon as possible. Clean up spilled fluids with an absorbent material like kitty litter or sand, and don't rinse the spills into a nearby storm drain. Remember to properly dispose of the absorbent material.
- Recycle used oil and other automotive fluids at participating service stations. Don't dump these chemicals down the storm drain or dispose of them in your trash.

### Lawn and Garden

- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Avoid application if the forecast calls for rain; otherwise, chemicals will be washed into your local stream.
- Select native plants and grasses that are drought- and pest-resistant. Native plants require less water, fertilizer, and pesticides.
- Sweep up yard debris, rather than hosing down areas. Compost or recycle yard waste when possible.
- Don't overwater your lawn. Water during the cool times of the day, and don't let water run off into the storm drain.
- Cover piles of dirt and mulch being used in landscaping projects to prevent these pollutants from blowing or washing off your yard and into local waterbodies. Vegetate bare spots in your yard to prevent soil erosion.

### Home Repair and Improvement

- Before beginning an outdoor project, locate the nearest storm drains and protect them from debris and other materials.
- Sweep up and properly dispose of construction debris such as concrete and mortar.
- Use hazardous substances like paints, solvents, and cleaners in the smallest amounts possible, and follow the directions on the label. Clean up spills immediately, and dispose of the waste safely. Store substances properly to avoid leaks and spills.
- Purchase and use nontoxic, biodegradable, recycled, and recyclable products whenever possible.
- Clean paint brushes in a sink, not outdoors. Filter and reuse paint thinner when using oil-based paints. Properly dispose of excess paints through a household hazardous waste collection program, or donate unused paint to local organizations.
- Reduce the amount of paved area and increase the amount of vegetated area in your yard. Use native plants in your landscaping to reduce the need for watering during dry periods. Consider directing downspouts away from paved surfaces onto lawns and other measures to increase infiltration and reduce polluted runoff.



Pet Care

- When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

Swimming Pool and Spa

- Drain your swimming pool only when a test kit does not detect chlorine levels.
- Whenever possible, drain your pool or spa into the sanitary sewer system.
- Properly store pool and spa chemicals to prevent leaks and spills, preferably in a covered area to avoid exposure to stormwater.

Septic System Use and Maintenance

- Have your septic system inspected by a professional at least every 3 years, and have the septic tank pumped as necessary (usually every 3 to 5 years).
- Care for the septic system drainfield by not driving or parking vehicles on it. Plant only grass over and near the drainfield to avoid damage from roots.
- Flush responsibly. Flushing household chemicals like paint, pesticides, oil, and antifreeze can destroy the biological treatment taking place in the system. Other items, such as diapers, paper towels, and cat litter, can clog the septic system and potentially damage components.

Storm drains connect to waterbodies!

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January 2003

For more information, visit  
[www.epa.gov/nps/stormwater](http://www.epa.gov/nps/stormwater)  
OR  
[www.epa.gov/nps](http://www.epa.gov/nps)

Remember: Only rain down the drain!



Make your home  
The  
SOLUTION  
TO STORMWATER  
POLLUTION!

A homeowner's guide to healthy  
habits for clean water



# Take the Stormwater Runoff Challenge

## Across:

- 1) The area of land that drains into an estuary, lake, stream, or groundwater is known as a \_\_\_\_\_.
- 4) The \_\_\_\_\_ of speeding boats can erode shorelines.
- 5) Maintaining your \_\_\_\_\_ tank will help to prevent bacteria and nutrients from leaking into groundwater and surface waters.
- 7) Wetland plants act like a natural water \_\_\_\_\_, removing harmful pollutants from stormwater runoff.
- 8) Leave your grass clippings on your \_\_\_\_\_ to reduce the need for commercial fertilizers.
- 9) A single quart of motor \_\_\_\_\_, if disposed of improperly, can pollute 2 million gallons of water.
- 10) Fertilizers and animal wastes contain \_\_\_\_\_ that "feed" algae and other aquatic plants harmful to water quality.
- 12) Polluted runoff from both rural and \_\_\_\_\_ sources has a significant impact on water quality.
- 16) Storm \_\_\_\_\_ don't always connect to sewage treatment plants, so runoff can flow directly to rivers, lakes, and coastal waters.
- 18) Follow directions carefully when applying \_\_\_\_\_ on your lawn—more isn't always better.
- 19) Polluted runoff (also called source pollution) comes from so many places that it's hard to "pinpoint" a source.
- 20) Yard and vegetable food waste are suitable additions to a \_\_\_\_\_ pile.

## Down:

- 2) Don't dump used motor oil into storm drains. \_\_\_\_\_ it!
- 3) \_\_\_\_\_ of soil from barren land can cloud nearby streams.
- 4) \_\_\_\_\_ prevent flooding, improve water quality, and provide habitat for waterfowl, fish, and wildlife.
- 5) Marking "Do Not Dump, Drains to Bay" on a \_\_\_\_\_ is one way to educate people about polluted runoff.
- 6) Excess sediment, nutrients, toxics, and pathogens are all types of runoff \_\_\_\_\_.
- 11) Polluted \_\_\_\_\_ is the nation's #1 water quality problem.
- 13) The cattail is one wetland \_\_\_\_\_ that helps purify polluted runoff.
- 14) Too much \_\_\_\_\_ in water can harm aquatic life.
- 15) Proper crop and animal management on \_\_\_\_\_ helps to control water pollution.
- 17) \_\_\_\_\_ impact development helps control stormwater pollution through conservation approaches and techniques.

## Choices:

compost	nonpoint	sediment
drains	nutrients	septic
erosion	oil	storm drain
farms	plant	urban
fertilizer	pollution	wakes
filter	recycle	watershed
lawn	runoff	wetlands
Low		



In deciding what additional tests to do, it is best to understand the history of land use at your property and the abutting properties. You may wish to inquire with neighbors, town officials and state agencies. This will help you to focus your list of the less routine items to test.

The less-routine tests may not be performed at all laboratories.

## When To Test

Recent regulations (still under development) require prospective homebuyers to test the water in a home with a private well before purchase.

Water quality in wells is generally stable, and *if* a change is going to occur, it occurs slowly. Thus the interval between water quality tests can be once per year for some items and less frequently for others (see chart), provided the well is properly constructed and located in a safe area.

However, the following conditions would prompt more frequent testing:

- Heavily developed areas with land uses that handle hazardous chemicals.
- Recent well construction activities or repairs. HEALTH recommends taking a bacterial test after any well repair or pump or plumbing modification, but only after disinfection and substantial flushing of the water system.
- Contaminant concentrations above state or federal standards found in earlier testing.

- Noticeable variations in quality --e.g. water quality change after a heavy rain or an unexplained change in a previously trouble-free well (i.e. funny taste, cloudy appearance, etc.).

When taking any sample, HEALTH recommends that it be taken after a heavy rainstorm. These events tend to highlight conditions of improper well construction or poor soil filtration.

## What the Tests Tell You

Results will reveal the level at which any of the tested substances were found in your water sample. The mere presence of contaminants in well water does not necessarily imply that there is a problem. However, when levels exceed state or federal health standards, you should take steps to correct the situation.

You should contact a licensed well driller/pump installer for any well repairs or replacement. Several methods are available from commercial contractors to treat contaminated water. HEALTH has links to informational documents on the web concerning all common water quality problems and their solutions.

## For More Information

RI Dept. of Health  
Office of Drinking Water Quality  
3 Capitol Hill - Room 209  
Providence, RI 02908-5097  
(401) 222-6867

**[www.health.ri.gov](http://www.health.ri.gov)**

This brochure was funded in part by the  
US Environmental Protection Agency.

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post consumer waste, using vegetable based inks

# Protect Your Family

## Test Your Well's Water Quality Today

## A Guide to Water Quality Testing for Private Wells in Rhode Island

" 130 "

Department of  
HEALTH



**A.E.A.** United States  
Environmental Protection  
Agency New England

EPA 901-F-04-0028 February 2004

## Private Wells

If you have a private well as a drinking water source, water quality testing should be important to you and your family.

Some contaminants in drinking water have been linked to cancer and toxicity, posing a risk to human health. Many contaminants often have no taste, odor, or color. Their presence can only be determined by laboratory testing.

While testing is required only at the time of sale of properties with non-public wells, the Rhode Island Department of Health (HEALTH) recommends that all homeowners with private wells test their water regularly. Testing should be performed at a laboratory licensed by the State of Rhode Island.

## Contamination of Wells

Well water originates as rain and snowmelt that filters into the ground. As it moves through the soil, the water can dissolve contaminants that are present on or in the ground.

Some contaminants are naturally occurring from features found in the rocks and soils of Rhode Island. These include substances like bacteria, radon, beryllium, arsenic, uranium, and other minerals.

Other contaminants find their way onto the land from human activities. On a large scale, industrial/commercial activities, improper waste disposal, road salting, and fuel spills can introduce hazardous substances to the ground.

Many residential activities, such as the use of fertilizers and pesticides, fueling of lawn care equipment, and disposal of household chemicals can contaminate the ground when done improperly. An improperly maintained on-site residential septic system can pose a threat to your well. That is why taking measures to protect your well from contamination is so important.

## Recommended Tests

The following tests identify common contaminants found in our state's well water. Although more tests could be added, this list provides a cost-effective, reasonable overview of a well's water quality. *It is not necessary to do all of these tests at one time.*

### • Standard Analysis

This basic analysis covers the most common contaminants. Some of these contaminants pose health-related concerns, while others only affect aesthetics (taste and odor).

### • Naturally Occurring Radioactive Elements

Dissolved radon is a common well water problem. Presently, there are no federal or state standards for radon in drinking water, only suggested action levels. HEALTH estimates that most private wells in Rhode Island exceed the suggested action levels, so testing for radon is important. Because the dissolved radon gas is released to the air during normal water use, you should consider checking your indoor air radon levels as well.

## Contaminants & Testing Frequency

### Standard Analysis Testing Frequency

- Bacteria Yearly
- Nitrate/Nitrite
- Sodium
- Fluoride Every 3-5 yrs
- Iron
- Lead
- Manganese
- pH
- urbidity

• Minimum requirements for property transfer.

- Radon Every 3-5 yrs
- VOCs Every 5-10 yrs

Naturally occurring radioactive minerals, such as radium and uranium may be dissolved in well water. A Gross Alpha Screen is a simple test to judge whether further testing for radium or uranium might be needed.

### • Volatile Organic Compounds (VOCs)

The most common VOCs come from gasoline compounds (such as MTBE and benzene) and industrial solvents. MTBE can be found in well water even in remote areas.

### • Additional Tests

Circumstances relative to your well may require additional testing not described here. For instance, HEALTH does not recommend routine testing for things like pesticides, herbicides, or synthetic organic compounds, mainly because of the high cost. However, such testing may be warranted, depending on where you live.

## Appendix F

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### SWMPP Meeting Information



**own Clerk's Office**


TOWN HOUSE ROAD, HOPKINTON, R. I. 02833

## HOPKINTON STORM WATER MANAGEMENT PROGRAM PLAN

### Certificate of Adoption

This is to certify that the Hopkinton Town Council unanimously adopted the Storm Water Management Program Plan by a unanimous vote on October 7, 2013.

Attest:

  
Elizabeth J. Cook-Martin  
Town Clerk

State of Rhode Island

County of Washington

In Hopkinton on the seventh day of October 2013 A.D. the said meeting was called to order by Town Council President Frank Landolfi at 6:15 P.M. in the Town Hall Meeting Room, 1 Town House Road, Hopkinton, RI.

PRESENT: Frank Landolfi, Sylvia Thompson, Barbara Capalbo, Scott Bill Hirst, David Husband, Town Solicitor Patricia Buckley; Town Manager William McGarry; Town Clerk Elizabeth Cook-Martin.

**EXECUTIVE SESSION**

A MOTION WAS MADE BY COUNCILOR THOMPSON AND SECONDED BY COUNCILOR HIRST TO ENTER INTO EXECUTIVE SESSION UNDER R.I.G.L. 42-46-5A (2) EXISTING LITIGATION/TAX TITLE PROPERTIES.

POLL VOTE:

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

A MOTION WAS MADE BY COUNCILOR THOMPSON AND SECONDED BY COUNCILOR HUSBAND TO RECONVENE IN OPEN SESSION AND SEAL THE MINUTES OF THE EXECUTIVE SESSION.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

Council President Landolfi announced the Council had taken a vote during the executive session, approved four to one, to accept a check in the amount of \$8,690.27 as a refund on an advance to resolve an issue pending since 2006. He reported those who voted in favor were Councilors Landolfi, Thompson, Hirst, Husband; Councilor Capalbo voted opposed.

The regular meeting was called to order with a moment of silent meditation and a salute to the Flag at 7:00 PM.

**HEARINGS**

A MOTION WAS MADE BY COUNCILOR CAPALBO AND SECONDED BY COUNCILOR HUSBAND TO SIT AS A LICENSING BOARD.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

**CLASS F LIQUOR LICENSE**

The Council opened a hearing on an application for a Class F Liquor License filed by the Friends of the Land Trust for an event scheduled for Thursday, November 7, 2013 to be held at The Mill on Spring Street, Hope Valley, RI from 5:30 to 8:00 PM.

There was no representative present. The application was complete with the exception of the exact street address of the event's location. The application included a request for a waiver of the filing fee. There were no objectors present. The Council proceeded with the application as this fundraiser had been sponsored by the Friends of the Land Trust and a similar fundraiser held last year.

A MOTION WAS MADE BY COUNCILOR CAPALBO AND SECONDED BY COUNCILOR HIRST TO APPROVE THE CLASS F LIQUOR LICENSE FILED BY THE FRIENDS OF THE LAND TRUST FOR AN EVENT SCHEDULED FOR THURSDAY, NOVEMBER 7, 2013 TO BE HELD AT THE MILL ON SPRING STREET, HOPE VALLEY, RI FROM 5:30 TO 8:00 PM WITH A FEE WAIVER AND THE OFFICIAL STREET ADDRESS TO BE PROVIDED BY THE APPLICANT.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

The Council expressed interest in purchasing tickets for this fundraiser.

A MOTION WAS MADE BY COUNCILOR HIRST AND SECONDED BY COUNCILOR CAPALBO TO ADJOURN AS A LICENSING BOARD AND

RECONVENE AS COUNCIL.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

**CONSENT AGENDA**

The Special Town Council Meeting Minutes of September 30, 2013, Town Council Meeting Minutes of September 16, 2013 and Town Council Meeting Minutes of September 3, 2013 were removed from the consent agenda for corrections.

A MOTION WAS MADE BY COUNCILOR CAPALBO AND SECONDED BY COUNCILOR HIRST TO APPROVE THE CONSENT AGENDA AS

FOLLOWS: Approve abatements submitted by the Tax Assessor; Approve refunds submitted by the Tax Collector.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

Town Clerk Elizabeth Cook-Martin reviewed the corrections requested by Councilor Hirst: The minutes of September 3, 2013, pages 3 and 4 to correct the spelling of the word “Halloween”, page 12 to correct the spelling of the names of individuals he adjourned in memory of – “Dale K. Jamsen and Audrey R. Gruber”; The minutes of September 16, 2013, page 5, 11 lines up from the bottom to substitute “counsel” for “council”. Page 8, line 8, correct the spelling of individual, page 9, line 15 from the bottom, substitute “Maxson” for “Maxon”. Councilor Capalbo requested a correction to the September 30, 2013 minutes on page 2, 7 lines up from the bottom to substitute “Herein” for “here lies”, on the same page, 4 lines from the top, to spell out the full name of the “SCAT” Foundation acronym.

A MOTION WAS MADE BY COUNCILOR CAPALBO AND SECONDED BY COUNCILOR HIRST TO APPROVE THE SPECIAL TOWN COUNCIL MEETING MINUTES OF SEPTEMBER 30, 2013; TOWN COUNCIL

MEETING MINUTES OF SEPTEMBER 16, 2013 AND TOWN COUNCIL  
MEETING MINUTES OF SEPTEMBER 3, 2013 AS CORRECTED.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

**PUBLIC FORUM**

No one spoke during the first public forum.

**COUNCIL PRESIDENT REPORT**

Council President reported he had attended the annual meeting of the RI League of Cities & Towns held at the Crowne Plaza in Warwick and had met the new Richmond Administrator Rob Rock and he had offered the assistance of our experienced Town Manager to him; he reported he had emailed U.S.

Representative James Langevin regarding the CDBG-DR Tier 2 Generator Grant, that nothing more had happened yet and anticipated there may be some political jockeying going on; he reported that studies were being done regarding the possibility of purchasing the Town's street lights from National Grid and then it would be up to the Town to maintain them, which would provide some potential savings to the Town. He stated this was a work in progress; they had received the inventory list from National Grid and the next step was for the Public Utilities Commission to set the tariff. He stated the initial cost of the lights and their depreciation would need to be determined. Councilor Capalbo asked when the Town Council would be discussing this. She referred to her work a lighting designer, as was Planning Board member Don Simmons, and would want to provide her input based on her experience and knowledge on the subject. Council President Landolfi responded this matter was in the preliminary stages but would be scheduled on an agenda perhaps in December; he reported in regards to the upcoming Town Budget FY 2014/2015, he wanted departments to begin studying the budgets early to look for potential savings to offset the cost of the next Chariho budget and/or to counteract any loss in revenue and any increase in enrollment calculations.

**TOWN MANAGER REPORT**

Town Manager William McGarry reported on September 27, 2013, he and Town Planner Jim Lamphere attended a meeting along with eight other individuals involved with the Canonchet Woods subdivision project at the Town Solicitors office in Providence. The purpose of the meeting was to identify all the remaining work that needed to be completed on Hopkinton Hill Road located in the subdivision. Assistant Town Solicitor Scott Levesque chaired the meeting, which was very productive. The contractor and developer agreed to complete the remaining work on Hopkinton Hill Road within the next 3-4 weeks. Work on Cardinal Lane still needed to be completed as well and they would also be addressing that area of the subdivision as they move forward. He noted they were waiting to see how much work the contractor will complete and then they would move forward from there, but he was optimistic; he reported on October 1, 2013, he and Finance Director Laura Kenyon attended a RI Department of Revenue Finance Seminar at the Department of Administration in Providence. The seminar consisted of presentations on municipal finance, OPEB's, SEC disclosure requirements in the municipal securities market, bonding, GASB, financial reporting for pension plans, municipal road and bridge projects and grants.

Councilor Capalbo commented on the first item Mr. McGarry had reported on and whether the Town had considered pulling the bond if they do not complete their work. Solicitor Buckley responded the bond had been called. Council President Landolfi asked if he thought they would be able to turn the road over to the town and if representatives from the Women's Development Corp (WDC) were present at the meeting. Mr. McGarry indicated he was not sure; it depended upon what they were able to accomplish, but moving against the bond had gotten their attention. He responded no one was there from the WDC. Councilor Husband asked how they were able to get a certificate of occupancy for buildings if they were not on a town approved road; how did that work. Mr. McGarry did not feel the Town could hold up a building permit based on the fact the roads had not been completed because it was a privately owned road. Councilor Husband noted he believed that a house had to have two hundred foot road frontage on a town owned road. Council President Landolfi stated it did not have to be a town

approved road. Councilor Capalbo explained it was a private road until it was brought up to town standards.

## **NEW BUSINESS**

### **AWARD BID RE: REWRITE/UPDATE OF ZONING ORDINANCES**

This matter had been scheduled to discuss and consider awarding a bid to Mason & Associates, Inc., for the Rewriting and Updating of the Town's Zoning Ordinances for the sum of \$36,915.00. David Westcott, Chief Planner from Mason & Associates was present. Town Planner James Lamphere was also present.

Mr. McGarry stated with respect to the zoning ordinance revisions, on August 11, 2013, the Town advertised an RFP for the rewriting and updating of the Town's Zoning Ordinances. He explained a mandatory pre-bid conference was held on August 19<sup>th</sup>, and on August 29<sup>th</sup> the Town received one bid from Mason & Associates of North Scituate for the sum of \$36,915.00 to perform a series of zoning ordinance revision tasks the most important of which was the re-write and update of the zoning ordinances. He stated upon receipt of the bid submissions by Mason & Associates, he forwarded copies to the Town Council President, the Planning Board Chairperson, the Zoning Board Chairperson, the Town Planner and the Building and Zoning Inspector. He stated each of those individuals reviewed the proposal to insure all the specifications were met. He explained that after a thorough review, it was determined the proposal had met all the specifications and standards. He stated he met with Planner James Lamphere, Building-Zoning Official Brad Ward and with Chief Planner Dave Westcott on September 24<sup>th</sup> to discuss the proposal and to ensure that Mr. Westcott and his agency were clear on the extent and scope of the project. He stated Mr. Westcott fully understood what was expected and had prior experience with the town in developing its Comprehensive Plan and the Earth excavation ordinance. Mr. McGarry stated Mr. Westcott was also very familiar with the town's zoning ordinances and was aware of the town's expectations of the work to be done. He explained Mr. Westcott would be assisted by Attorney Nancy Letendre who was going to serve as the firm's legal counsel on the project. Mr. McGarry stated after

considerable discussion with the town's staff, he recommended the Town Council award the bid to Mason & Associates for the sum of \$36,915.00. He added the Town fully intended to be involved in the project and Planner James Lamphere was present to answer any questions the Town Council may have.

Councilor Hirst found it interesting only one bid was submitted. Councilor Capalbo stated she was pleased Mr. Westcott and Ms. Letendre were on board. Dorothy Gardiner of Canonchet Driftway asked if the regulations would be available in an electronic format and on the web. Mr. Westcott responded yes; he wanted the process to be user friendly, with information available on each parcel.

A MOTION WAS MADE BY COUNCILOR THOMPSON AND SECONDED BY COUNCILOR CAPALBO TO AWARD THE BID TO MASON & ASSOCIATES, INC. FOR THE REWRITING AND UPDATING OF THE TOWN'S ZONING ORDINANCES FOR THE SUM OF \$36,915.00.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

A MOTION WAS MADE BY COUNCILOR THOMPSON AND SECONDED BY COUNCILOR CAPALBO TO MOVE UP THE AGENDA ITEM RELATING TO COMMENTS ABOUT THE 09/27/13 WESTERLY SUN ARTICLE.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

**COMMENTS RE: 09/27/13 WESTERLY SUN ARTICLE & RELATED LETTER TO THE EDITOR CONCERNING THE CHARIHO SCHOOL COMMITTEE MEETING OF SEPTEMBER 24, 2013**

Council President Landolfi stated he had prepared a statement regarding an article he read in the Westerly Sun on September 24, 2013 and indicated he was a little angry. He had not attended the school committee meeting. He explained he had prepared a statement stating his thoughts about what happened at the School Committee meeting, in which the members discussed an agenda item regarding a

replacement principle at Ashaway Elementary School and whether one should be hired. Council President Landolfi read from his statement as follows; “I normally would not comment on such matters but felt compelled to do so after hearing what events took place at the School Committee meeting of September 24<sup>th</sup>. When I first heard the agenda item would appear for discussion I was concerned for the residents of Ashaway, I called Superintendent Ricci to find out his thoughts on whether it would have his support. Superintendent Ricci did tell me he believed each school should have a principal and he would support having a principal at Ashaway Elementary School. Unfortunately I could not attend the school committee meeting that evening because I had other commitments. I thought the vacancy of the principal at the Ashaway School was a legitimate agenda item given the current circumstances and recent rejection of the school budget. I don’t think the agenda item was purposely listed to bait the residents or at least I hope it wasn’t. What I take exception to is Richmond Committee person, Cardozo taking our residents from Hopkinton to task about how we always reject the school budget. Budget outcomes, whether they pass or fail, should not have been brought up. The issue was can we, as a community, function with only one principal for two elementary schools in Hopkinton. That’s the issue. That issue should have been debated, pros and cons, we all know what the cost of a principal was but it should have been debated on its merits whether it was good or not. Whether we as a town vote down the school budget had no place in that discussion as far as I’m concerned. To hold the residents hostage on a school budget that got overwhelmingly defeated was wrong. I want to remind committee member Cardozo that his own town of Richmond defeated the budget the same as Hopkinton did regarding the recent school budget. The residents from Richmond rejected the school budget overwhelmingly. I’m also wondering if committee member Cardozo even knew how the residents voted. Also I want to remind school committee member Cardozo that Richmond Elementary School has two principals, not one. In closing I want to publicly say that I’m sorry that our residents have felt that the meeting was turned around to blame our town for the consistent budget rejections, this should not have happened, I’m also glad that the

residents of Ashaway will soon have a principal in the school to prepare the children for the rigors of middle school. Thank you.”

Councilor Thompson asked what he meant by Richmond Elementary School having two principals. Council President Landolfi explained the school had a principal and an assistant principal; the other elementary schools had one principal with no assistant. Councilor Hirst stated he did have a letter published in the Westerly Sun, but did not attend the meeting in question. He stated when one is a council person or a school committee member, that person is a political leader and there is a professional dimension and a political dimension. Councilor Hirst felt Mr. Cardozo needed to be aware of the feelings of the community. He stated not that we have to agree, but we have an obligation to put forth our opinion in a very objective manner and should also know our community. He stated the schools need to have an outside management study to make recommendations to the school districts. He felt people were clearly baited, because by Mr. Cardozo’s own words, he said he wanted to get people at the meeting. Councilor Hirst stated Hopkinton was clearly singled out; the other two towns were not mentioned. He reminded everyone the agenda item stated the discussion was to be about the principal position at the Ashaway Elementary School. He also wanted the school committee to explain why they could not live within the budget they have been given. Councilor Thompson acknowledged current and past school committee members present. She felt the subject had been very much about money. She stated she has heard about the fact that Hopkinton has two elementary schools for years. She stated when the high school was built many years ago Hopkinton actually paid 50% of the costs to get the high school built. She explained when the Chariho Exit and Expansion Committee was formed Georgia Ure had served on the committee and noted there are volumes of information from the work the committee did available for review. She stated there are good school committee members and they were doing the best they could. She suggested that the few that come up with such foolishness should be spoken to, in order to get them on the right path, and then they should base their decisions on the facts before them, not that that Hopkinton had voted down the

budget. Councilor Capalbo stated she agreed with her fellow councilors and felt Mr. Cardozo had been rude, inconsiderate and thoughtless in his remarks. She stated parents from Hopkinton were supportive of the school and should be thanked for their concern, not maligned. Councilor Husband felt that if Mr. Cardozo wanted to berate Hopkinton for voting down the school budget, he should be looking at the school budget which has been fat for years; the surplus showed that. He felt Mr. Cardozo gave us a cheap shot. School Committee Member Georgia Ure stated for a number of years Hopkinton had paid half or more of the budget at Chariho and now there were more children in the adjoining towns than were in Hopkinton so the two other towns were starting to have to pay more and they were uncomfortable with it. Mrs. Ure stated the school district has a problem with the fact that Hopkinton has two elementary schools which our Town has because there are enough children to support two schools. She felt our elementary schools were in the right place - in the villages, right where they belong; which is where the kids live, where the fire departments were, where we have public water for Hope Valley Elementary School and where we have a natural gas supply for heat. She stated those latter two things were enormous assets and if a new school was built those things would not be available, plus there would be additional transportation costs. She reminded the Town Council they would need to research this thoroughly before going down that road.

Dorothy Gardiner of Canonchet Driftway reported she was at that meeting and felt angry and disappointed because she felt what Mr. Cardozo did was an abuse of a position he was in by a vote of the taxpayers. They were chastised by Mr. Cardozo stating he brought them here to tell them if these budgets don't pass, things were going to happen. She felt the taxpayer had a right to vote and to be able to express their beliefs and their feelings. Mrs. Gardiner stated the voters should look very carefully at the people they vote for.

**FINANCING OF DYE HILL ROAD IMPROVEMENTS THROUGH RI CLEAN WATER FINANCE AGENCY UNDER THE MUNICIPAL ROAD AND BRIDGE REVOLVING FUND ACT**

This matter had been scheduled to discuss and consider a proposed application to obtain low-cost financing from the RI Clean Water Finance Agency under the

Municipal Road and Bridge Revolving Fund Act for improvements to Dye Hill Road in the sum of \$181,581.12.

Council President Landolfi noted he had received a complaint from someone who lived on Dye Hill Road about the condition of the road which was in terrible condition. He reported the Governor's proposed budget had allocated some funds for our town for road improvements but it was subsequently taken away in through the State's budgetary process. In light of this, he thought it best to look in another direction for funding. Mr. McGarry explained the Governor's budget proposed 10 million dollars as a grant that would be available to the individual cities and towns in Rhode Island, but that option had been removed from the budget. He stated a law had been passed creating the Municipal Road and Bridge Revolving Fund, which was funded with approximately 7 million dollars. Mr. McGarry stated he and Finance Director Laura Kenyon attended a seminar in Providence on October 1<sup>st</sup>, where they learned that this year our town would be ineligible because the Town of Hopkinton needed the authority to borrow. He stated it was not simply a matter of the Town Council adopting a resolution it had to be a Warrant Item that was presented at the Financial Town Meeting and be approved through a voter referendum. He explained the one the Town currently has allows borrowing up to a million and one half but does not extend for the specific purpose of roadway construction which is what prevents the Town from applying for funds this year. Mr. McGarry suggested next year the Town should present a Warrant Item to the taxpayers and if it passes during the budget referendum the money would be there if the Town needed it. He stated the goal was to repair approximately two miles of Dye Hill Road which was in deplorable condition. He stated the amount of drainage work that had to be done on that road was easily going to cost hundreds of thousands of dollars along with the engineering study, the engineering work and the actual cost of either chip sealing or asphaltting the road. He stated one thought was to eliminate the drainage work and only work on the shimming and chip sealing for \$181,000.00. If that was too costly, then during the budgetary process perhaps the Town could budget \$90,000.00 in one fiscal year and \$90,000.00 in the next. Mr. McGarry pointed

out the Town wouldn't be able to start that project for two years but even if the money was borrowed, it was still basically a loan. He felt the Municipal Road and Bridge Revolving Program is geared towards cities and towns that were in dire financial straits. He explained the engineering study to determine what needed to be done was \$25,000.00 and former projections by the DPW ranged from between \$400,000.00 to \$800,000.00 for the drainage work, also there would be catch basins, shimming and either the asphalt or the chip sealing. Councilor Thompson felt the Town should wait for better times. Council President Landolfi pointed out the former DPW Director had given a rough estimate in 2010 of what two miles of correctly repaired road would cost and it came to \$1.8 million dollars. He felt repairing the road was too cost prohibitive but did speak with Mr. McGarry about chip sealing a portion of the road in one budget season and repairing the rest in the next budget season. He felt there were ways to repair the road without too much trouble, but felt the drainage work was cost prohibitive. He stated he had looked at the debt service schedule for the town and there were two loans expiring; one in 2015 for the landfill and one in 2016 for public safety which would free up \$93,000.00 per year. He felt perhaps that money could be used for Dye Hill Road. Councilor Capalbo felt the Town could put money aside each year in the CIP specifically for Dye Hill Road or have a Warrant item for the revolving fund. She suggested doing both so that some of the drainage issues could be addressed. Mr. McGarry stated the DPW Director was not in favor of repairing the road without the drainage work and he was probably right, but to spend over a million dollars on two miles of road was something the Town could not afford. DPW Director Tim Tefft stated if a cost estimate could be obtained from the engineer for different options, perhaps his department could work on some of the drainage issues, saving a lot of money. He felt before the decision was made to chip seal the road, some of the drainage had to be addressed because without it the water would just run down the road and rip up the chip sealing. Mr. Tefft noted he wouldn't mind repairing the road with chip sealing but it would not be the best answer. He felt to repair the road so it would last more than three years might be worth spending the extra money. Council President Landolfi was concerned that it was not cost effective to spend

\$25,000.00 on an engineer if they recommended \$2,000,000.00 worth of work.

Mr. Tefft replied at least the Town would have the engineering study because someday the Town would be forced to repair it. Councilor Husband stated he was in favor of having the engineering study done because the Town would have it when it was needed. Councilor Capalbo suggested the Town could work on the road one part at a time. Council President Landolfi asked if the study was done, could DPW work on portions of it or would it have to be subcontracted out. Mr. Tefft replied he felt his department could work on it. Mr. McGarry stated the real expense was the water problem and the drainage. He referred to South Drive, stating it was costing the Town \$100,000.00 to get rid of water in one spot.

### **STORMWATER MANAGEMENT PLAN APPROVAL**

This matter had been scheduled to discuss and consider approving the Town's proposed Storm Water Management Plan for submission to the RI Department of Environmental Management. Town Planner James Lamphere was present. James Riordan from Fuss & O'Neill, the Town's on call engineering firm, was present.

Mr. Riordan stated the plan was designed to comply with DEM Regulations which was a federally mandated program. He stated the town was given a \$25,000.00 grant to put the plan together so it had been essentially at no cost to the town. He stated on September 3<sup>rd</sup>, the Town Council received copies of the plan as PDF files and tonight he would review it. He stated the plan covered six minimum measures which included public education and outreach, public participation and involvement, illicit discharge detection and elimination, construction site runoff control measure, post construction site runoff control, good housekeeping and pollution prevention. Mr. Riordan explained the implementation of the plan was not currently required however DEM anticipated the Town would be regulated sometime in the future perhaps in a year or two. He stated the plan was essentially preparing the town for the program, adding that many of the things that were required in the plan were already addressed. He stated the DPW regularly maintained the storm water drainage system. He stated there were some issues that would need to be implemented, one would be to map

the storm drainage system which included the outfall, catch basins and manhole covers. He explained he worked with the DPW staff and GIS/IT Director Matt Desmaris to instruct them how to do this in accordance with state and federal requirements. Mr. Riordan stated as part of the implementation, the Town would have to adopt three ordinances, an illicit discharge prohibition ordinance, a construction site storm water runoff control ordinance which addresses sediment control and a post construction runoff control ordinance. He stated the ordinances had been drafted as part of the project on behalf of the town and adoption doesn't have to take place until it was required by the State. He stated he had prepared a memo that indicated minor changes made to the Storm Water Management Plan which were things that had been identified since the plan was given to the Town Council and staff. He explained the changes were relatively minor such as the soil erosion sediment control ordinance because it was brought to their attention there was some concern about whether the building official should be responsible for doing that work. He stated the reason the building official was included the draft ordinance was because the state enabling legislation specifically stated he had to be included. He stated when the time came to implement the program, which was a five year period, one year was for developing the plan, which the town had already done, and the last four years were for implementation. He stated Planner James Lamphere received an e-mail from Margarita Chatterman, one of the state officials involved with implementing the program and reviewing plans and she had reviewed the draft plan and that essentially the town was in good shape to go forward with the federal and state requirements. Mr. Riordan noted it was not the same as getting the plan approved, but sounded good for the approval once it was formally transmitted to the state. Councilor Capalbo felt the plan was well done. She felt using the building official as authorizing enforcement was absolutely correct and was happy with that choice. She felt the second paragraph of Section 8.4.6 should be reworded to indicate that garbage was brought to a dumpster at the Crandall House Recreation Department rather than at the DPW complex. She noted Crandall Field was full of children and was a major recreational area with people walking their dogs. Mr. Tefft responded all the trash from Crandall Field was originally brought up to DPW, but now had its

own dumpster there. Councilor Capalbo asked about various sections of the plan and who was responsible for each one. Mr. Riordan explained 3B1 was part of the illicit discharge detection and elimination and the small B1 was to develop an outfall map including locations of outfalls, the discharge to the SRPW's, the ONRW's, and was making a map for that particular area. Mr. Riordan explained the Town had a choice as to whether to map all the outfalls using GIS or whether to tag them with some sort of medallion or permanent tag. Mr. Riordan stated 5.1 was drinking water supply, special habitat at recreational areas and regulated waterways and should be given high priority due to the high recreational value of these areas. Mr. Riordan stated the Planner would essentially be responsible for policy associated with the protection of those waters. Mr. Riordan stated that would be done through public education and the planning department would take care of that. Councilor Capalbo asked if the DPW would take care of the drinking water. Mr. Riordan stated part of this involved investigation and potential illicit discharges if any existed. He stated if there were illicit discharges, then the DPW might have to trace back up the storm water lines to find it. He stated the building official was responsible for soil erosion and sediment control. Council President Landolfi felt the Town Council would potentially approve it before it was regulated. Mr. Riordan replied that was correct. Council President Landolfi of the eight items listed on the bottom of your summary, which ones were being addressed. Mr. Riordan replied the first one, Oversight of Construction Projects, and review of storm water management plans creating greater than more than one acre of soil disturbance. He stated currently the last one was not being fully looked at because there was a requirement in the subdivision regulations that stated the Town had to fall to the "red book". He explained the red book was the preliminary document at DEM that had turned into the Soil Erosion Sediment Control handbook, so that particular requirement was somewhat out of date, but the Construction Ordinance or the Soil Erosion Ordinance that was drafted would bring it up to date. He stated the Building Official would be responsible for that. He stated the Town Building official was already conducting inspections of regulated construction sites and even for some building permit activity. Mr. Riordan stated he was pleased to see a fair amount of identification of existing

storm water infrastructure had been accomplished. He stated the Town had already identified most of the catch basins, man holes and outfalls and more had to be done, but the Town had identified most of it. He explained the inspection of catch basins and man holes was different than identifying and mapping them. He stated, as part of the project we showed the DPW folks how to do that in compliance with the requirements here. He stated they have inspection sheets and an excel spread sheet would help them keep on track. He pointed out the adoption of elicit discharge prohibition, construction management and post construction management ordinances was in draft form at this point and felt the plan was in good shape.

A MOTION WAS MADE BY COUNCILOR CAPALBO AND SECONDED BY COUNCILOR THOMPSON TO APPROVE THE TOWN’S PROPOSED STORM WATER MANAGEMENT PLAN FOR SUBMISSION TO THE RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

**PROCLAMATION DESIGNATING NOVEMBER 2013 AS PANCREATIC CANCER AWARENESS MONTH**

A Proclamation designating November 2013 as Pancreatic Cancer Awareness Month was before the Council for consideration.

A MOTION WAS MADE BY COUNCILOR THOMPSON AND SECONDED BY COUNCILOR CAPALBO TO ADOPT THE PROCLAMATION DESIGNATING NOVEMBER 2013 AS PANCREATIC CANCER AWARENESS MONTH.

IN FAVOR: Landolfi, Thompson, Capalbo, Hirst, Husband

OPPOSED: None

SO VOTED

The Proclamation follows:

**PROCLAMATION PANCREATIC CANCER  
AWARENESS MONTH NOVEMBER, 2013**

**WHEREAS**, in 2013, an estimated 45,220 people will be diagnosed with pancreatic cancer in the United States and 38,460 will die from the disease.

**WHEREAS**, pancreatic cancer is one of the deadliest cancers, is the fourth leading cause of cancer death in the United States, and is the only major cancer with a five-year relative survival rate in the single digits at just six percent.

**WHEREAS**, when symptoms of pancreatic cancer present themselves, it is late stage, and 73 percent of pancreatic cancer patients die within the first year of their diagnosis while 94 percent die within the first five years.

**WHEREAS**, approximately 130 deaths will occur in Rhode Island in 2013.

**WHEREAS**, the incidence and death rate for pancreatic cancer are increasing and pancreatic cancer is anticipated to move from the fourth to the second leading cause of cancer death in the U.S. by 2020.

**WHEREAS**, the U.S. Congress passed the *Recalcitrant Cancer Research Act* last year, which calls on the National Cancer Institute to develop scientific frameworks, or strategic plans, for pancreatic cancer and other deadly cancers, which will help provide the strategic direction and guidance needed to make true progress against these diseases.

**WHEREAS**, the Pancreatic Cancer Action Network is the national organization serving the pancreatic cancer community in Hopkinton and nationwide through a comprehensive approach that includes public policy, research funding, patient services, and public awareness and education related to developing effective treatments and a cure for pancreatic cancer.

**WHEREAS**, the Pancreatic Cancer Action Network and its affiliates in Hopkinton support those patients currently battling pancreatic cancer, as well as those who have lost their lives to the disease, and are committed to nothing less than a cure.

**WHEREAS**, the good health and well-being of the residents of Hopkinton enhanced as a direct result of increased awareness about pancreatic cancer and research into early detection, causes, and effective treatments.

**NOW, THEREFORE, BE IT RESOLVED** that the Town Council of the Town of Hopkinton designates the month of November, 2013 as “Pancreatic Cancer Awareness Month” in Hopkinton.

## **PUBLIC FORUM**

No one spoke during the second public forum.

## **ADJOURNMENT**

A MOTION WAS MADE BY COUNCILOR HIRST AND SECONDED BY COUNCILOR THOMPSON TO ADJOURN IN MEMORY OF FORMER POLICE CHIEF GEORGE H. WEEDEN.

SO VOTED

Elizabeth J. Cook-Martin

Town Clerk

Lorraine Tarket – Arruda

Deputy Town Clerk



**FUSS&O'NEILL**

## MEETING NOTES

**DATE OF MEETING**

**PROJECT NUMBER:** 20120815.A10

**PROJECT NAME:** IU, Hopkinton - SWMPP

**ATTENDEES:**

N.a.m£.

## Company

Matt Desmat-ais

## Town of Ifopkinton

Jim Lamphere

Town of Hopkinton

William A. McGarry

Town of Hopkjincon

Tim Tefft

Town of Hopkinto.t\

Eric Beck

IUDEM

Margarita Chatterton

RIDE M

Sue Kieman

IUDEM

Jennifer Stout

RIDEM

Jim Riordan

Fuss &amp; O'Neill

**RE:** Project Initiation Meeting

**SUBMITTED BY:** Jim Riordan, AICP, LEED AP

The following provides a summary of the Hopkinton Storm Water Management Program Plan project initiation meeting, which was held in the Town of Hopkinton (town) Office of the Town Planner on April 30, 2013 at 2 p.m. Attendees of the meeting include representatives of the Town, Rhode Island Department of Environmental Management (RIDEM), and Fuss & O'Neill. Specific attendees are listed above. A sign-in is also attached.

Jim Lamphere, Hopkinton Town Planner, opened the meeting with introductions around the table. He then turned meeting over to Jim Riordan for review of items on the agenda.

Jim provided several handouts (agenda, schedule, and proposal with scope of work), which are all attached. The meeting notes (below) follow the order of items in the agenda.

## Project Objectives

Jim Riordan pointed out that while Hopkinton is not currently regulated under the General Permit Rhode Island and Massachusetts /)irdm?\_ /)/imillation JyJcllJ Storm Water Dildm],e/onJ SliallMunicipalSeporak Storm SoJPer fyJ'em.r andfntll Indllsriai./JctiviJ at EA ible l'adlitie Operated!?) E.gulated SmallMS4s (M 4 Storm Water General Permit) That the Town will likely be included in next version of the MS4 Storm Water General Permkric Beck elaborated on the specific criteria that bring MS4 operators (e.g., municipalities) under the MS4 Storm Water General Permit. These include population size, population density and approved TMDLs. Brie reiterated that the Town will be included in the reissued general permit.

**MEETING NOTES  
MAY 10, 2013  
HOPKINTON SWMPP  
PAGE 2 OF 4**

Jim Riordan also pointed out that the Town had received a Storm Water Management Program Planning and Implementation grant from RIDEM in the amount of \$25,000, which was enabling the Town to move forward with development and implementation of a storm water management program plan (SWMPP).

The general objective of the SWMPP project is to develop a plan that meets the requirements of the existing MS4 Storm Water General Permit and then to begin implementation. Implementation will include drafting of enforceable policy and field training related to the general permit. Sue Kiernan pointed out that the form of the ordinances is neither specifically dictated in the project scope of services nor the MS4 Storm Water General Permit. She also noted that the project scope includes development of draft policy and does not necessarily extend to adoption of the ordinances by the Town as local promulgation may involve unanticipated processes.

Jim Lamphere pointed out that as practicable there may be specific issues related to local development that the Town would like to address as part of SWMPP development. He specifically mentioned update of the subdivision regulations. (Note: policy update in the project contract is currently limited to drafting an illicit discharge prohibition, construction management ordinance, and post-construction ordinance.)

**Points of Contact & Communication Protocol**

Primary points of contact for the project will include:

- a. Hopkinton
  - i. Town Planner: Jim Lamphere 377-7770  
[planner@hopkintonri.org](mailto:planner@hopkintonri.org)
- b. Fuss & O'Neill
  - i. Project Manager: Jim Riordan 861-3070 x 4571  
[jriordan@fando.com](mailto:jriordan@fando.com)

Additionally, Sue Kiernan will be available to answer questions related to the grant and Jen Stout will be available to address technical questions related to the MS4 Storm Water General Permit.

**Project Scope of Services**

Jim Riordan provided an overview of the scope of services from the project proposal, which is dated January 17, 2013, and is attached to this meeting summary. Some key points from discussion related to the scope of services are provided below:

- RIDEM suggested that the Wood-Pawcatuck Watershed Association be included in discussions related to public outreach and public participation as they are a key advocacy group in Town.

**MEETING NOTES  
MAY 10, 2013  
HOPKINTON SWMPP  
PAGE 3 OF 4**

- RIDEM noted that storm water system mapping (e.g., outfalls) should consider mapping catch basins and a process for adding catch basins as they are installed. (Later in the meeting, Matt Desmarais presented a map of catch basins in Town. It was noted that map is in a preliminary form and may not include a comprehensive depiction of storm water infrastructure owned by the Town.).
- Sue Kiernan discussed a grant solicitation that RIDEM is proposing to release in the fall of 2013. Eligible projects for the solicitation are planned to include local MS4 storm water program implementation. A specific date for release has yet to be scheduled. The grant money will include new state bond money. She noted that the federal funding landscape (i.e., Clean Water Act, section 319) has changed recently and limits the expenditure of dollars on MS4 issues; however, as long as Hopkinton remains unregulated under the MS4 Storm Water General Permit, the Town could be eligible for federal dollars as well as state bond dollars. Sue noted that TMDL implementation may impart a lower matching requirement for grant funds.
- RIDEM representatives requested to be involved in review of the draft SWMPP. Jim Riordan indicated that a draft is planned to be delivered to the Town on May 15 and that he will make the draft available to RIDEM as well.
- Jim Riordan pointed out that all currently approved TMDLs in Town fall under the Rhode Island Statewide Bacteria TMDL. Impaired waters under that TMDL with less than 10% impervious surface are considered to be impaired by natural sources rather than urban development. RIDEM representatives recommended that Town MS4 infrastructure, which does not discharge to impaired waters, should be identified as a lower priority for SWMPP implementation.
- RIDEM representatives said that high priority management areas should include impaired waters, SRPWs, and cold-water fisheries where Town outfalls drain.

### **Schedule**

Jim Riordan introduced the project schedule (see attached). He pointed out the presented schedule was significantly compressed from the schedule in the January 17, 2013 project proposal. The adjusted schedule provides time for response to RIDEM comments on the SWMPP to allow the Town to meet the current grant deadline. Sue Kiernan said that the completion date for the contract could be flexible, that the grant could be extended if needed, and that this would not adversely affect the grant funding. Notwithstanding, RIDEM requested to be included in the review of the draft SWMPP on May 15 in order to expedite the review process.

### **Available Data**

Jim Riordan pointed out that the SWMPP would be based in part on the following information:

**MEETING NOTES  
MAY 10, 2013  
HOPKINTON SWMPP  
PAGE 4 OF 4**

- a. DEM data and Town mapping
- b. Town ordinances on line  
(<http://library.municode.com/index.aspx?clientId=12010&stateId=39&stateName=Rhode%20Island>)

Matt Desmarais presented six draft maps (attached), which were developed based on Town and RIGIS data.

## **AGENDA**

**Hopkinton Storm Water Management Plan and Implementation**  
**April 30, 2013**  
**2:00p.m.**

1. Project Objectives
2. Points of Contact & Communication Protocol
  - a. Hopkinton
    - i. Town Planner: Jim Lamphere 377-7770  
planncr@hopkintonri.org
  - b. Fuss & o'Neill
    - i. Project Manager: Jim Riordan 861-3070 x 4571  
jriordan@fando.com
3. Project Scope of Services
4. Schedule
5. Available Data
  - a. DEM data and Town mapping
  - b. Town ordinances on line  
[Omp://www.hopkintonri.org/ordinances/](http://www.hopkintonri.org/ordinances/)

## TENTATIVE STORMWATER MANAGEMENT PLAN PROGRAM SCHEDULE

April 7,2013	Data/Mapping provided by RIDEM (assumed delivery date,remaining time line follows from this date)
April 30,2013	2PM- Kickoff meeting with Matt,Tim,DEM and Fuss & O'Neill
May 15,2013	Rough FinalDraft Plan submitted to Town
May 23,2013	Rough FinalDraft meeting (staff)
June 30,2013	FinalPlan submitted to Town
July 1,2013	FinalPlan given to Town Councilfor review
Mid July	Fuss & O'Neill training with town DPW staff on inspection/documentation of catch basins
Mid July	Town will be provided with proposed ordinances in draft
July 15,2013	Town Council may determine next steps with Plan including date for public meeting
July 17,2013	FinalPlan workshop with Town
August 5,2013	Possible Town Council Public Meeting on Plan

PROJECT INITIATION MEETING SIGN IN Hopkinton  
Storm Water Management Plan and Implementation April 30,  
2013  
200p.m.

<u>Name</u>	<u>Company</u>	<u>Phone Numbers</u> (Office & Cell)	<u>Email</u>
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PROJECT INITIATION MEETING :SIGN IN Hopkinton  
Storm Water Management Plan and Implementation April 30,  
2013  
2:00p.m.

Name	Company	<u>Phone Numbers</u> (Office & Cell)	Email



January 17, 2013

James M. Lamphere  
Town Planner  
1 Town House Road  
Hopkinton, RI 02833

RE: Storm Water Management Planning and Implementation  
Hopkinton, RI  
Fuss & O'Neill Reference No. 20120815.A10

Dear Mr. Lamphere:

The Town of Hopkinton (Town) has received a \$25,000 grant from the Rhode Island Department of Environmental Management (RIDEM) to develop and begin to implement a Storm Water Management Program Plan in accordance with the *General Permit Rhode Island Pollutant Discharge Elimination System Storm Water for Small Municipal Separate Storm Sewer Systems and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s* (MS4 Storm Water General Permit).

We understand that to support the Project, the Town, in collaboration with RIDEM, will be compiling existing information on the Town's stormwater infrastructure and water resources. We understand that this will include existing information on the location of publicly owned drainage structures and connected stormwater best management practices in the Town's possession. In addition, the Town, with RIDEM assistance, will compile geographic information system data to characterize the surface and groundwater resources of the Town and identify water quality impairments as well as waters of outstanding national resource waters and special resource protection waters as may exist in Hopkinton. The Town will provide this information to Fuss & O'Neill for incorporation into the stormwater management plan at the project's kick-off meeting.

This proposal is to assist the Town in developing a plan and initiating implementation of the plan by developing draft language to modify or create one or more ordinances deemed necessary to comply with MS4 requirements. We will also provide training related to illicit discharge detection and elimination mapping; catch basin inspection, mapping and data tracking; and structural best management practice (BMP) mapping. We understand that Town staff will develop an assessment of water resources, which will be provided to us to incorporate into the plan, and will collect and prepare public outreach materials to be posted on the Town website.

Below, we provide a recommended scope, budget and schedule for our proposed work.

317 Iron Horse Way  
Suite 204  
Providence, RI  
02908  
1 401.861.3070  
800.286.2469  
401.861.3076  
www.fondco.com

Connecticut  
Massachusetts  
Rhode Island  
South Carolina

I:\P2\112\0115\A10\1\proposal\mjr\_1\lop JOinnSW\1111\_1.ctrcrPrnposal\_20130117.docx  
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2011 Fuss & O'Neill

James M. Lamphere

January 17, 2013

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## Scope of Services

## Task 1-Develop a Storm Water Management Plan for Hopkinton

## Public Education and Outreach

Wc will:

- Identify primary targets for public education.
- Identify opportunities to work with watershed advocates.
- Identify programs such as surveys, **uclits**, newsletters **nd** coordination with the press to target any weaknesses related to storm water management. This will also identify strategies to involve diverse audiences.

As discussed above, the Town intends to collect and prepare public outreach materials to be posted on the Town website. The Town's efforts are meant to establish basic compliance with the MS4 Stormwater General Permit.

## Public Participation/Involvement

We will:

- Identify approaches to maximize public participation and involvement. This task is similar to the public education component of the program and, therefore, will be coordinated with that program. Key components of this task include noticing key groups to participate in the program that would have the greatest potential gain or loss.
- During the course of this project, we will attend a public hearing before the Town Council and/or the Planning Board or other applicable commission. For the purpose of this proposal we assume that the Town will schedule, notice, and arrange these hearings.

### Construction and Post Construction Site Runoff Control

We will:

- Review existing Town ordinances.
- Recommend general modifications to existing ordinances, as necessary, to comply with Phase II requirements as well as incorporate state-of-the-art sediment and erosion control approaches and technologies.
- Recommend procedures, if necessary, for:

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January 17, 2013

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- > Site plan review of construction plans that considers potential water quality impacts.
  - > Site inspection and enforcement of control measures.
  - > Penalties or other sanctions to ensure compliance consistent with the recommended ordinance.
  - > Process to receive and consider public input regarding local construction activities.
- Assess the suitability of the ASIST software in conjunction with the Town and make recommendations for training as needed. (Training for data management related to catch basin assessment and maintenance is discussed in Task 3.)

#### **Illicit Discharge Detection and Elimination**

We will develop a plan for the Town to detect and address illicit discharges that will satisfy this minimum measure, including:

- Based on an understanding of the storm sewer system and current watershed conditions, identify priority areas for an illicit discharge detection and elimination program. This would include prioritizing areas to prepare outfall mapping and a strategy to prepare that mapping, including incorporating this data into a GIS database. This will also include a review of existing records to determine where mapping may have already been completed.
- Recommend procedures for conducting fieldwork to identify sources of such discharges. Recommended field efforts could include facility audits, sanitary and outfall surveys, and storm water and water quality sampling during wet and dry weather.
- Identify entities responsible for spill reporting and response.
- A strategy for adopting an enforceable prohibition against illicit discharges. We will review existing ordinances in Hopkinton and, if necessary, suggest other successful enforcement mechanisms used in other municipalities that could improve those existing ordinances.
- A strategy to educate the regulated community on methods to detect and eliminate illicit discharges to be coordinated with the public education and outreach plan that will be developed to meet the first minimum measure.
- A method to record and track all actions taken to detect and address illicit discharges

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## Pollution Prevention/Good Housekeeping

W/c will:

- Interview Town DPW personnel and conduct site walkovers of DPW facilities to identify existing maintenance practices, pollution prevention measures, and areas for improvement.
- Develop facility-specific recommendations for pollution prevention practices for operations commonly associated with municipal facilities, including storage and usage of deicing materials, management of vehicle maintenance fluids, and vehicle washing and cleaning.
- Recommend training needs for municipal staff on pollution prevention measures and techniques, including the following topics:
  - Y Street sweeping
  - > Environmentally sensitive deicing practices
  - > Park and open space maintenance
  - > Fleet and building maintenance
  - > Storm water system maintenance (i.e., catch basin cleaning)
- Provide a catch basin inspection form.

## Evaluation and Assessment Reporting

We will work with the Town to prepare a reporting format containing the following elements:

- Status of compliance with permit conditions, including an assessment of the appropriateness of selected BMPs and progress toward achieving measurable goals for each minimum measure.
- Results of any information collected and analyzed, including monitoring data.
- Summary of the storm water management activities planned for the next reporting cycle.
- Change in any identified BMPs or measurable goals for any minimum measure.
- Notice of relying on another governmental entity to satisfy some of the permit obligations.

## Storm Water Abatement Opportunities

We will identify potential storm water abatement opportunities. These opportunities may come from activities such as:

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January 17, 2013  
Page 5

- Landfill closure.
- Watershed restoration activities.
- Hydro modification restoration.
- ■ habitat restoration.
- Wetlands/buffers enhancement.

Storm water abatement opportunities will be based on both our findings during the course of the project as well as issues that the Town would like to be addressed in the future. These opportunities will be on an 11"x17" USGS based map of the Town and include a tabular summary of:

- Project location.
- Project name.
- Estimated order-of-magnitude costs.
- Potential funding sources and amounts of funding to be used/requested.
- Impairments of concern and suspected source.
- Anticipated project duration and recommended calendar start time.
- Deliverables and anticipated resource improvements.

#### Recommendations for Storm Water Source Reduction and Advanced Management

The Storm Water Management Plan developed for Hopkinton will identify recommendations for source reductions via appropriate land use and environmental management such as:

- Establishment of buffer zones, vegetated drainage ways and other green infrastructure.
- Wetlands protection.
- Maintenance or restoration of natural infiltration.
- Cluster zoning, transfer of development rights, etc.
- Overlay districts for sensitive areas.
- Storm water utilities.
- Wastewater management programs.

#### Schedules, Measurable Goals, Costs, and Financing

The Storm Water Management Plan developed for Hopkinton will include a schedule, measurable goals, order-of-magnitude costs and availability of financing for each of the project recommendations. This will include:

- Actions - How Hopkinton will implement its SWMP.
- Participants - Who will be responsible for each task.
- Outcomes - What will Hopkinton accomplish by completing each task.
- Resource Needs - What resources are necessary to complete a task.

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- Timeframe – When each task is expected to be completed.

#### State Revolving Fund Facilities Planning Checklist

From the Community Comprehensive Plan, the following elements will be described in the Storm Water Management Plan:

- Planning area that shows the current and forecasted service area as well as natural, cultural, historic, and archeological resources in Hopkinton.
- Assessment of current conditions in the planning area including geophysical, land use, and affected plant and animal communities.
- Assessment of future conditions including land-use, economic and demographic forecasts, and
- Description of environmental impacts and a public hearing (if a specific BMP is being proposed in the plan).

#### Meetings

In addition to the public meetings required as part of the Public Participation minimum measure, we will conduct meetings with Town staff (e.g., planning and public works). Three meetings are anticipated. The purpose of these meetings is to provide an efficient means for the Town to reach conclusion on important project decisions. We propose three meetings as follows:

- Project initiation meeting during which we will discuss scope of work, schedule, and expected outcomes. We will also review data collected to assess water resources as described above. We anticipate that this meeting will occur after RIDEM and the Town compile existing information to characterize the Town's infrastructure and water resources (e.g., surface and groundwater resources, water quality impairments, and outstanding natural resource waters) as we will need this information to proceed efficiently with our scope of work.
- Draft plan meeting to discuss information collected during interviews with Town staff and review of Town policies and data. To the extent practicable, we will present information that we have collected in the form of a draft Storm Water Management Plan. The management plan will be provided electronically to the Town one week in advance of the meeting.
- Final plan meeting to discuss the final draft plan prior to a public plan-review meeting as discussed above under public participation.

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#### Response to Comments

We will provide you with an update to the SWMPP Q.e., in the plan itself) in order to address comments from RIDEM. We will also provide you with a digital copy (MSWord format) of a cover letter to RIDEM, which can be printed on Town letterhead, to accompany the addendum. We have budgeted 12 hours to respond to RIDEM comments.

#### Task 2— Storm Water Ordinances

Under this task, we assume the need for ordinances to address post-construction runoff control, prohibit illicit discharges, and manage construction site storm water. We understand that this task may need to be adjusted if these three ordinances are not needed.

We propose to complete three stand-alone ordinances customized for inclusion in your Town Code of Ordinances. These ordinances are required pursuant to the MS4 Storm Water General Permit

The ordinances will include the following:

- **Post Construction Runoff Control Ordinance**— Based on the Rhode Island Model Ordinance for the Control of Post Construction Stormwater Runoff. (Jim Riordan of our office actually wrote the model ordinance while he was at RIDEM.).
- **Prohibit Illicit Discharge Prohibition**—Based on two model ordinances for illicit discharge prohibition. RIDEM developed one of the model illicit discharge prohibition ordinances. The other utilizes a much simpler approach. Many of our clients have used this simpler approach to establish compliance with MS4 Storm Water General Permit.
- **Prepare Construction Site Storm Water Runoff Control Ordinance**—Based on the University of Rhode Island and Rhode Island Department of Environmental Management 2009 guidance document, Updating Municipal Model Erosion and Sediment Controls to meet MS4 Storm Water General Permit.

We propose to initially draft the ordinances with annotations that explain key elements of the ordinance so that Town staff will be able to see how the ordinance will work in the context of statutory language. We then propose to conduct a meeting with Town staff to discuss the three ordinances together, suggested modifications, and other changes that the Town may want to incorporate. After the meeting, we will finalize the draft language for presentation at a public meeting as described below. This proposed task does not include attendance at a public meeting; however, if this is needed, we are available to do that work under a separate proposal.

James M. Lamphere  
January 17, 2013  
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### Task 3-One-Day Training

We will provide Town staff with a one-day training that includes:

- Inspecting catch basins and locating outfalls.
- Surveying outfalls for compliance with MS4 Storm Water General Permit Dry-Weather Survey requirements.
- Documentation of catch basin inspection and operation-maintenance data.

We anticipate this will include approximately four hours of classroom-style training and four hours of in-field training at a catch basin, outfall, and structural BMP to be identified in advance by the Town.

### Schedule

We are prepared to complete the proposed storm water management plan for submission to RIDEM within six months of authorization. We are prepared to respond to RIDEM comments within a month of our receipt of comments. We propose to develop the proposed ordinances and conduct training during month 7 of the project and complete the planning tasks within six months of receipt of Authorization to Proceed. A completion schedule for each task based on project month (i.e., time since authorization) is provided below:

Task	Month of Completion
Storm water management plan	
• Project initiation meeting	1
• Draft plan workshop	3
• Final plan workshop	5
• Public meeting	5
• Final plan for submission to RIDEM	6
Response to comments	One Month After Receipt of Comments
Three ordinances	
• Draft three ordinances	6
• Workshop with Town	
• Final three ordinance for Town staff to present to Town Council	7
One-day training	

James M. Lamphere  
January 17, 2013  
Page 9

## Fees

We propose a budget be established for professional services in support of this effort as outline below. We will bill these services on an hourly basis under our existing on-call services contract with the Town and this budget would not be exceeded. Any additional work will be billed on our on-call fee schedule.

Task	Fee
Storm water management plan	\$16,000.00
Response to comments	\$1,500.00
Tissue ordinances	\$6,000.00
One-day training	\$1 500.00
Total	\$25,000.00

Billing will be monthly according to our current on-call Rate Schedule with the Town in effect at the time services are provided.

## General Terms and Conditions

The general terms and conditions of our current on-call agreement will apply to these services described above.

Receipt of a signed copy of the Authorization to Proceed enclosed with this proposal or issuance of a purchase order referencing this proposal will serve to authorize the work outlined in the Scope of Services.

As part of this proposal, we also agree to address paragraphs 3, 7, 8, and 10 from your grant agreement with RIDEM as follows:

- Consistent with RIGL 37-14.1-6, the Fuss & O'Neill will ensure that at least ten percent (10%) (i.e., \$3,125) of the dollar value of entire grant project performed will be performed by a Disadvantaged Business Enterprise certified by the Department of Administration (DOA) or that a waiver of this requirement is obtained by DOA.
- All media announcements, signage, reports and any other materials produced by Fuss & O'Neill for public consumption, printed or electronic, pursuant to this agreement must recognize the Department of Environmental Management as a source of funding.

J: mci\1. r amphere

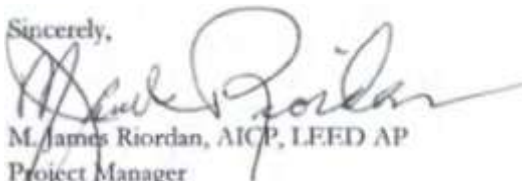
Jnnu:u:y 17,2013

Page 10

- Fuss & O'Neill agree to maintain all financial activity records relating to this agreement, and to make such records accessible to the Town, upon request. Fuss & O'Neill agree to respond adequately to any inquiries by auditors acting on behalf of the Town pertaining to activities performed. Records will be retained for audit purposes for a period of seven (7) years following the date of final payment for the project.
- Where practicable and written reports are required, Fuss & O'Neill agrees to use nontoxic ink and recycled paper (minimum 20% post-consumer content) on all correspondence and printed materials produced pursuant to this agreement.

We understand that the Town is reliant on the \$25,000 RIDEI\1 for project funds and that if it were not for that grant funding, the Town would be unable to proceed with this project. We further understand that *Section 6.1* of our 2010 on-call contract with you addresses termination procedures should termination of the project become necessary for budgetary or other reasons.

Thank you for requesting engineering service from Fuss & O'Neill. We look forward to working with you on this project.

Sincerely,  
  
 M. James Riordan, AICP, LEED AP  
 Project Manager  
 /ap

  
 Dean E. Abler, PE  
 Senior Vice President

Attachments: Authorizations to Proceed

## Authorization to Proceed

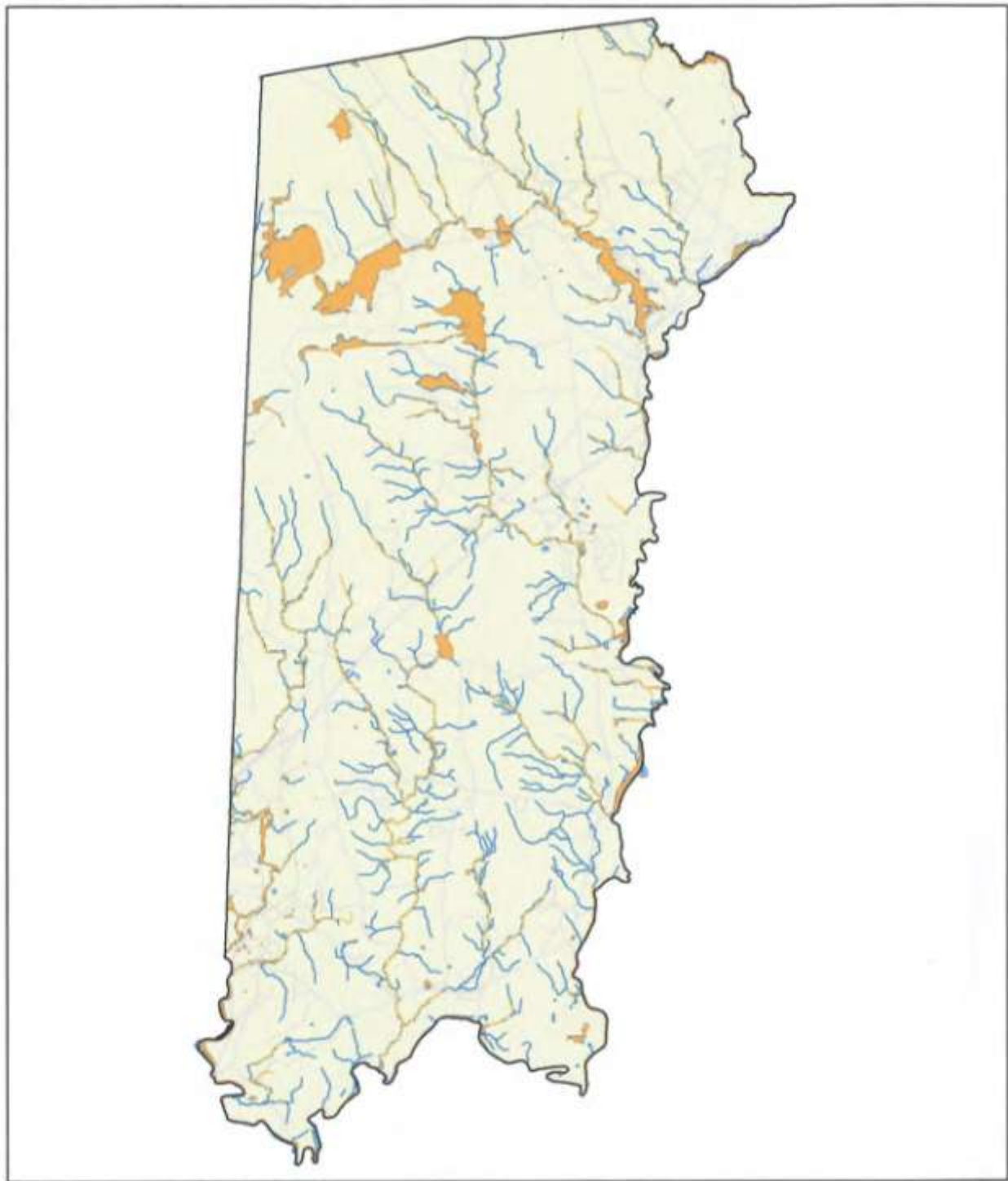
Mr. M. James Riordan, AICP, LEED AP  
Fuss & O'Neill  
317 Iron Horse Way, Suite 204  
Providence, RI 02910

RE: Authorization to Proceed  
Storm Water Management Planning and Implementation  
Hopkinton, RI  
Fuss & O'Neill Reference No. 2012081S.A10

De: Mr. Lamphere:

I hereby authorize Fuss & O'Neill to proceed with the above-referenced project in accordance with the General Terms and Conditions and proposal dated January 17, 2013. I understand that billing will be monthly, payable within thirty (30) days of date of invoice with interest accruing at the rate of 1.5% per month thereafter. A 15% administration charge will be added to subcontract services that are billed through Fuss & O'Neill. I further understand that The Town of Hopkinton will be responsible for the reasonable cost of collection.

<u>William A. McGarvey</u>	<u>2/4/13</u>
Printed Name	Date
<u>William A. McGarvey</u>	<u>Town Manager</u>
Signature	Title



### Legend

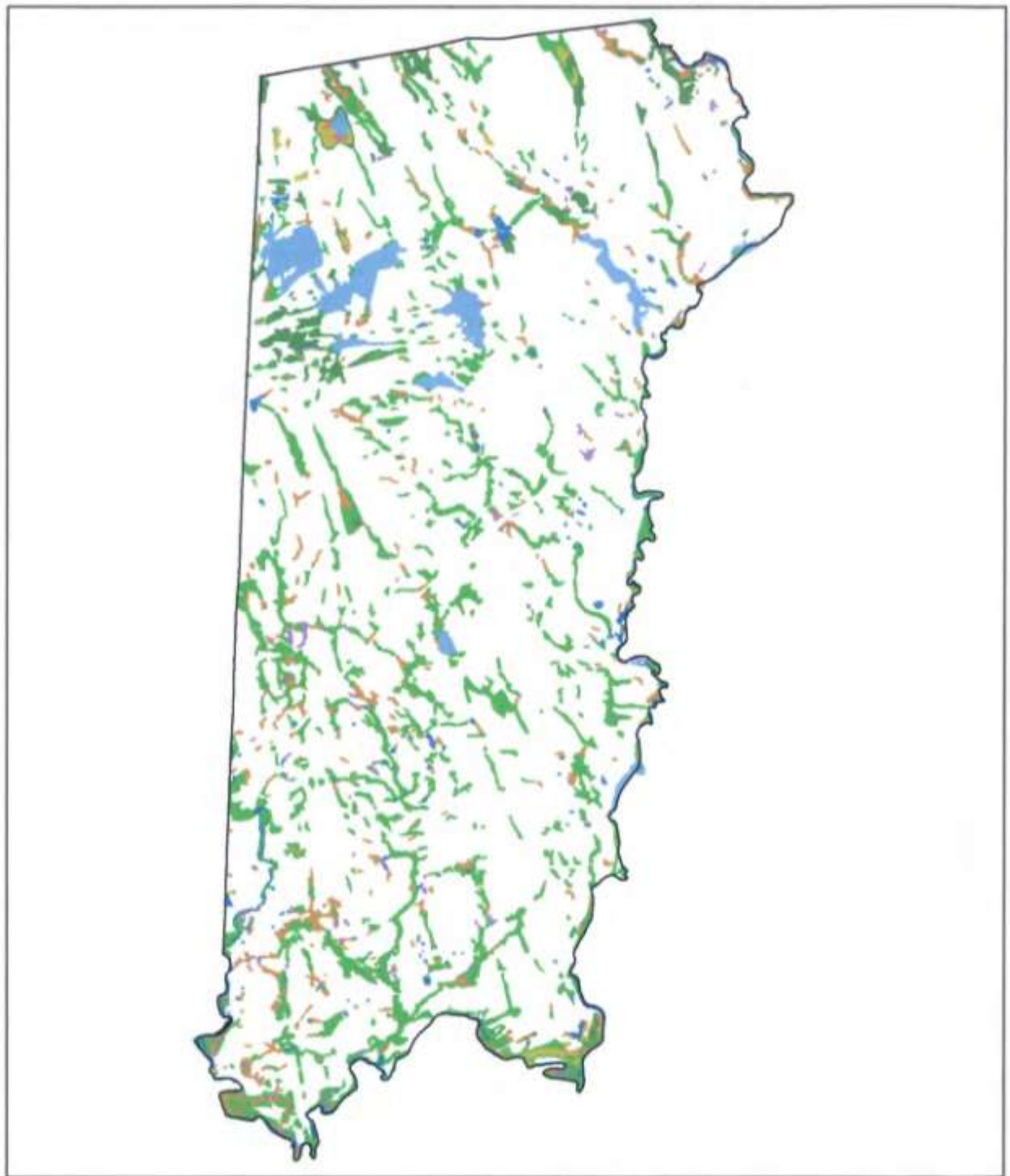
- O** Municipal Boundary
- Impaired Waterbodies
- Impaired Streams
- B** waterbodies
- ..rv-- Streams

0 0.5 1 2  
-----Miles

Source: Rhode Island Geographic Information System (RIGIS),  
Town of Hopkinton, USGS 2013

## FIGURE 2 TOWN OF HOPKINTON IMPAIRED WATERS





# Legend

- Open Water
- Emergent Wetland
- Forested Wetland
- Shrub-Swamp
- Upland

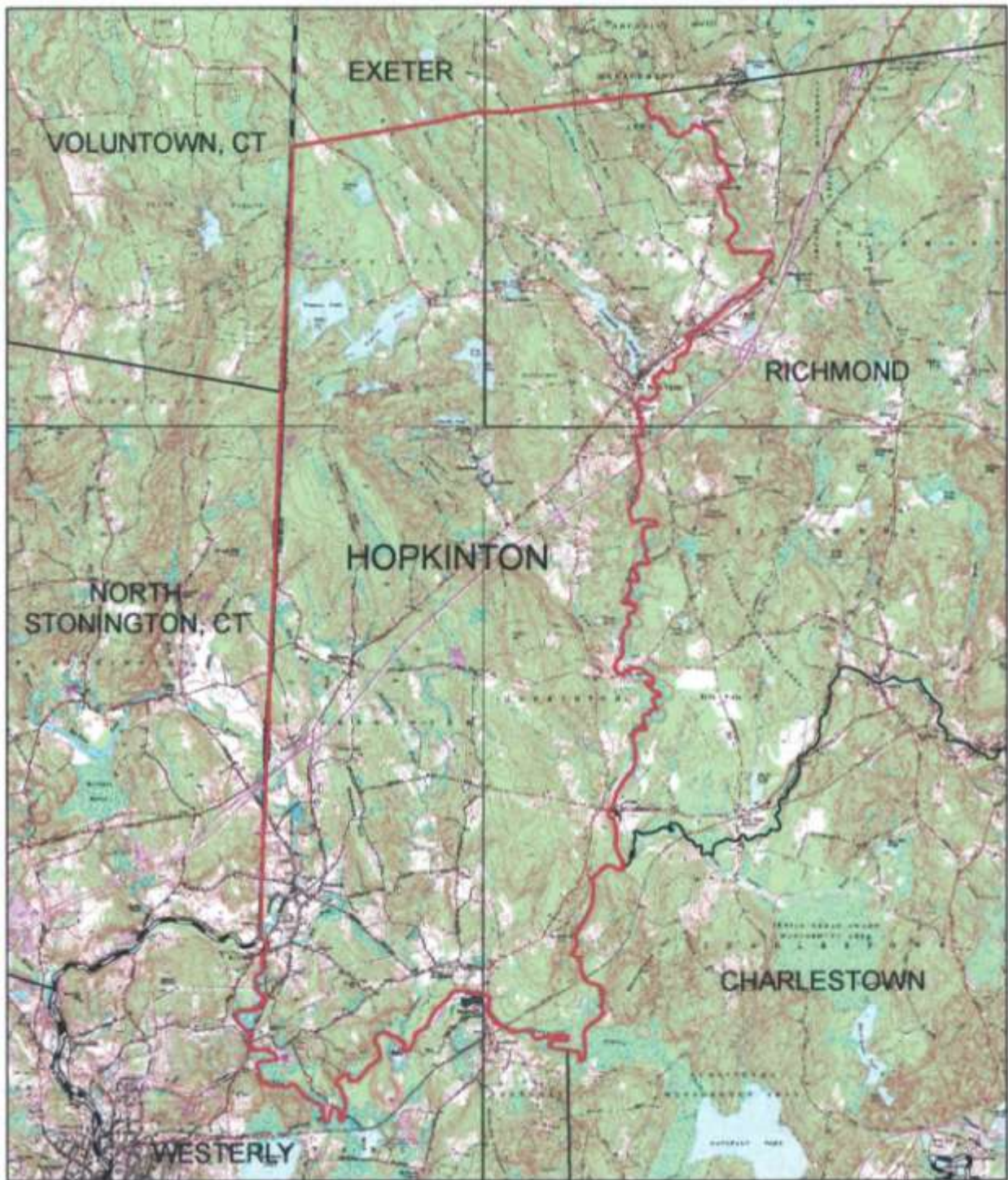
**FIGURE 4**  
TOWN OF HOPKINTON

## WETLAND RESOURCES



Map prepared by  
Town of Hopkinton, MA  
USGS, 4/03





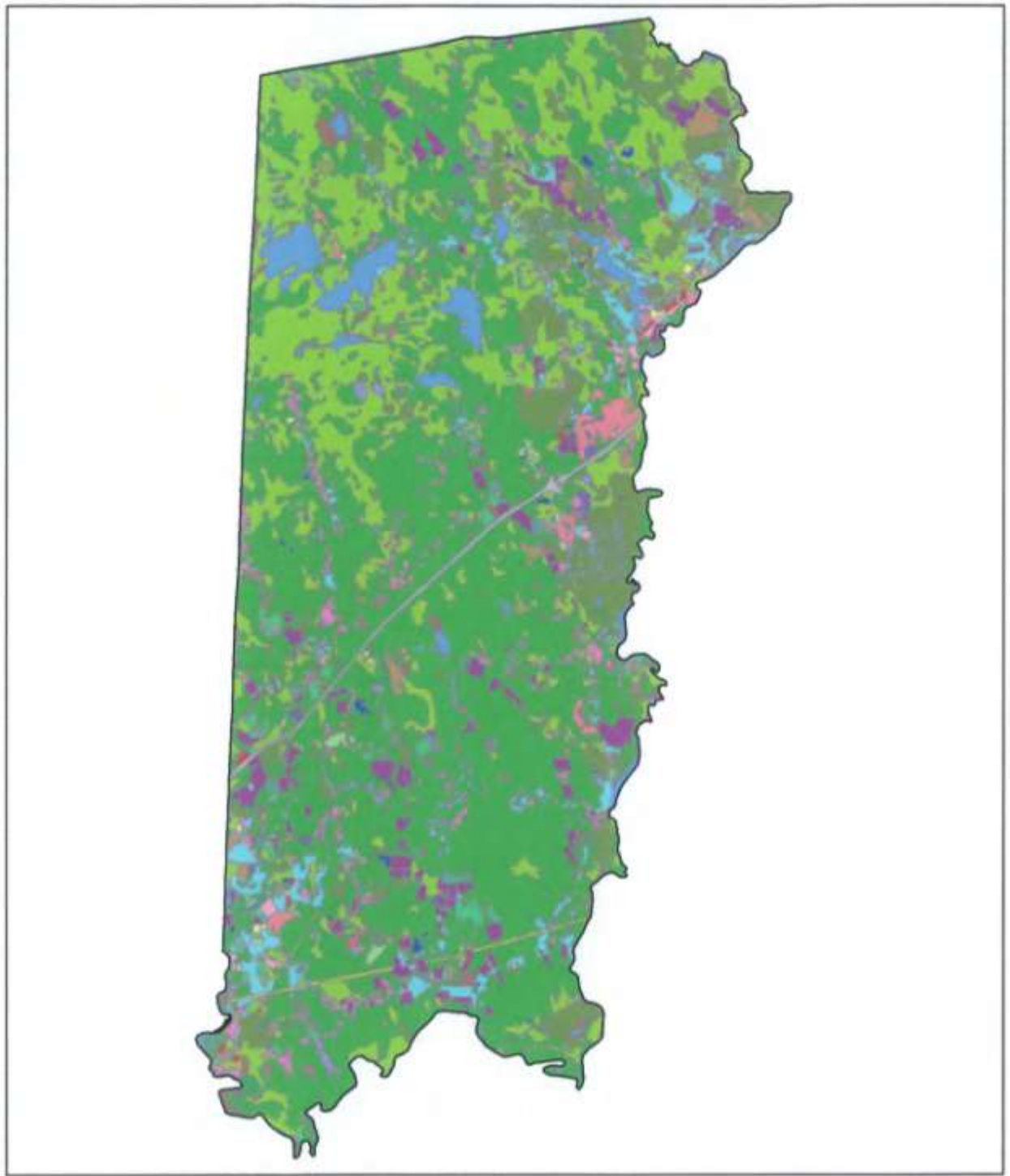
### Legend

- Hopkinton Town Boundary
- |::| State Boundary
- C:J Municipal Boundaries

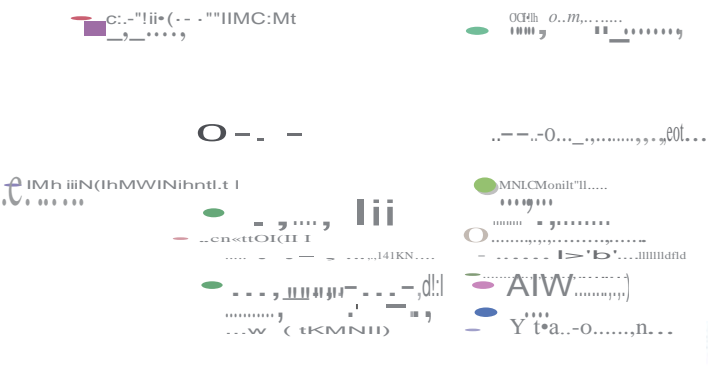
0 0.5 2 Miles

**FIGURE 1**  
TOWN OF HOPKINTON  
**LOCATION MAP**

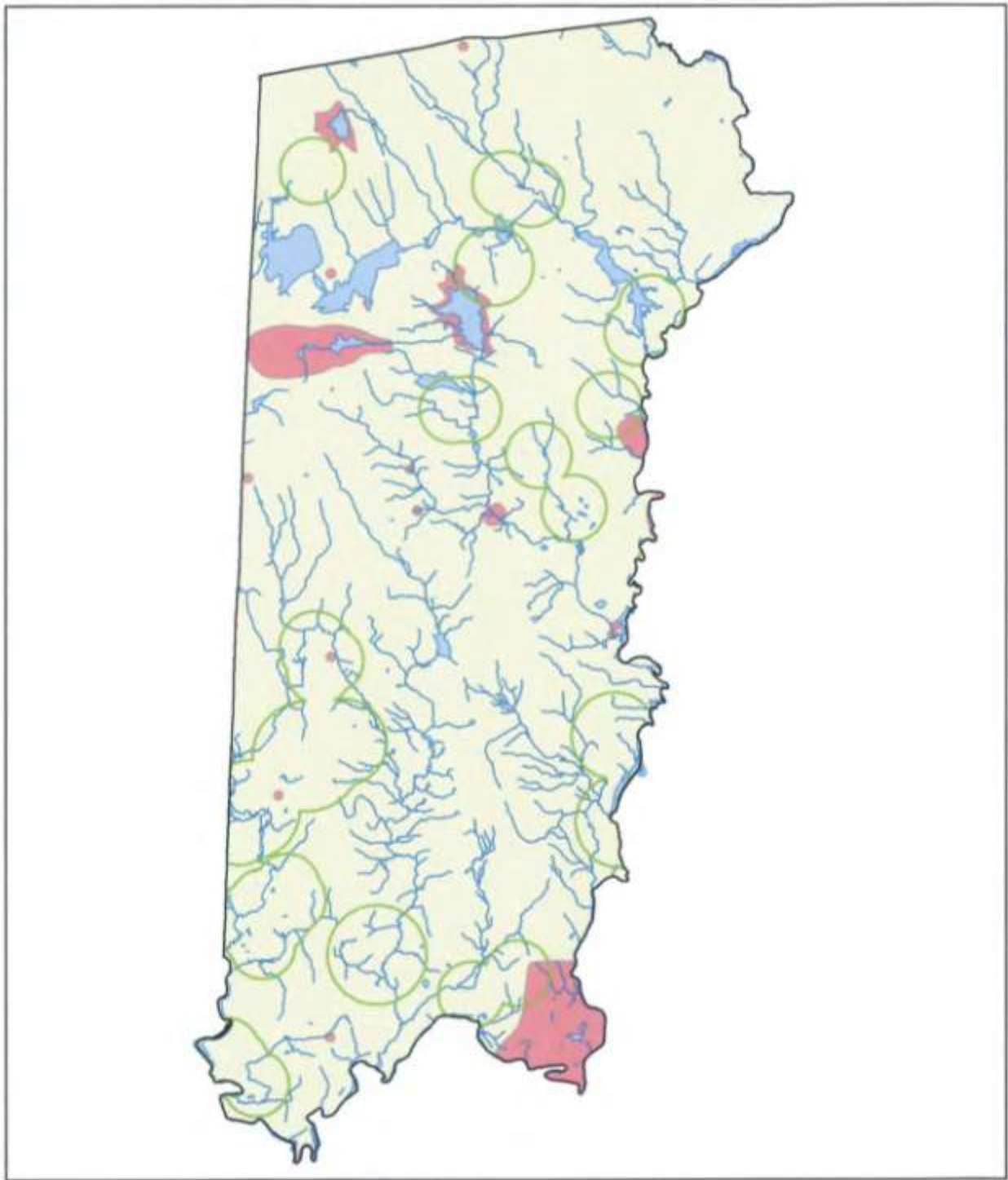







**FIGURE 5**  
TOWN OF HOPKINTON  
**LAND USE**



.....O..... |C'iN1     ...  
M..... ftt---11(11111•1111N<sub>L</sub> )    —\rftH



Legend

-  Wetland
-  Stream
-  Rare Species Habitat

0 0.5 2 Miles

Source: Rhode Island Geographic Information System (RIGIS),  
Town of Hopkinton, USGS, 4/2013

## FIGURE 3 TOWN OF HOPKINTON NATURAL RESOURCES

N

W E  
S



## Appendix G

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### Draft Ordinances

DRAFT-MAY 2013

## CHAPTER 21        ILLICIT DISCHARGES TO THE MUNICIPAL SEPARATE STORM SEWER

We anticipate that the Town will add this ordinance as a chapter in the existing Code of Ordinances.

### Section 21-141        Purpose.

The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of the Town of Hopkinton through the regulation of non storm water discharges to the Town of Hopkinton's Municipal Separate Storm Sewer. Specifically, this ordinance is intended to:

- (1) Prevent pollution and impairment to Waters of the State through proper operation of the Town of Hopkinton's Municipal Separate Storm Sewer.
- (2) Provide for compliance with the *General Permit Rhode Island Pollutant Discharge Elimination System Storm Water Discharge from Small Municipal Separate Storm Sewer Systems and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s*, as amended and including, but not necessarily limited to, Parts IV.B.3.a.2 and IV.B.3.b.4.
- (3) Prohibit, and enforce such prohibition, against non storm water discharges that are not expressly authorized under a Rhode Island Pollutant Discharge Elimination System Permit.
- (4) Prevent improper disposal and handling of waste, litter, yard waste, and household hazardous waste that might otherwise contribute to pollution or impairment of Waters of the State via the Town of Hopkinton's Municipal Separate Storm Sewer.

### Section 21-142        Authority.

This ordinance is promulgated pursuant to the requirements of Rhode Island Department of Environmental Management's (DEM) *General Permit Rhode Island Pollutant Discharge Elimination System Storm Water Discharge from Small Municipal Separate Storm Sewer Systems and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s*, including, but not necessarily limited to, Parts IV.B.3.a.2 and IV.B.3.b.4. and in accordance with the Title 45 Towns and Cities, Chapter 6 Ordinances (R.I.G.L. 45-6-1, *et seq.*)

### Section 21-143        Definitions.

*Allowable Non-Storm Water Discharges.* Means Discharges expressly allowed pursuant to a Rhode Island Pollutant Discharge Elimination System Permit. In accordance with Part I.B.3 of the *General Permit Rhode Island Pollutant Discharge Elimination System Storm Water Discharge from Small Municipal Separate Storm Sewer Systems and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s* and provided such Discharges are not deemed Significant Contributors of Pollutants to the MS4, Allowable Non-Storm Water Discharges may include, but are limited to the following:

To the extent possible, definitions are taken directly from DEM's General Permit and RIPDES Regulations.

- (1) Discharges which result from the washdown of vehicles at retail dealers selling new and used automobiles where no detergents are used and individual residential car washing.
- (2) External building washdown where no detergents are used
- (3) Use of water to control dust
- (4) Fire fighting activities.
- (5) Fire hydrant flushings.
- (6) Natural springs.
- (7) Uncontaminated groundwater.

- (8) Dechlorinated pool discharges.
- (9) Air conditioning condensate.
- (10) Lawn watering
- (11) Potable water sources including waterline flushings.
- (12) Irrigation drainage.
- (13) Pavement washwaters where spills or leaks of toxic or Hazardous Materials have not occurred (unless all spilled materials have been removed) and where detergents are not used.
- (14) Discharges from foundation or footing drains where flows are not contaminated with process materials such as solvents, or contaminated by contact with soils where spills or leaks of toxic or Hazardous Materials have occurred.
- (15) Uncontaminated utility vault dewatering.
- (16) Dechlorinated water line testing water
- (17) Hydrostatic test water that does not contain any treatment chemicals and is not contaminated with process chemicals.

*Discharge.* Means the addition of any Pollutant to Municipal Separate Storm Sewer from any Point Source.

*Illicit Discharge.* Means any Discharge to a Municipal Separate Storm Sewer that is not composed entirely of storm water except Discharges pursuant to a Rhode Island Pollutant Discharge Elimination System Permit.

*Owner or Operator.* Means the owner or operator of any facility or activity subject to *Regulations for the Rhode Island Pollutant Discharge Elimination System*, as amended.

*Person.* Means an individual, trust, firm, joint stock company, corporation (including a quasi-governmental corporation) partnership, association, syndicate, municipality, municipal or state agency, fire district, club, non-profit agency or any subdivision, commission, department, bureau, agency or department of state or federal government (including quasi-governmental corporation) or of any interstate body and any agent or employee thereof.

*Point Source.* Means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

*Pollutant.* Means any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, agricultural waste, pet waste, litter, yard waste or household hazardous waste.

## **Section 21-144      Authorized Enforcement Agent.**

For the purposes of this Ordinance the authorized enforcement agent means the director of the Town of Hopkinton Department of Public Works and representatives and designees acting to implement or enforce this ordinance.

## **Section 21-145 Prohibited Discharges.**

No Person shall discharge or cause Discharge into a Municipal Separate Storm Sewer unless such Discharge is an Allowable Non Storm Water Discharge as defined in this ordinance.

This section is worded precisely to fit with the requirements of DEM's GP.

## **Section 21-146 Suspension of Municipal Separate Storm Sewer Access.**

Any Person discharging to the Municipal Separate Storm Sewer in violation of this ordinance may have their Municipal Separate Storm Sewer access terminated if such termination would abate or reduce an Illicit Discharge. A Person commits a separate violation if the Person reinstates Municipal Separate Storm Sewer access to premises terminated pursuant to this Section, without the prior approval of the Authorized Enforcement Agent.

## **Section 21-147 Inspections and Monitoring.**

The Authorized Enforcement Agent shall be permitted, upon the presentation of credentials and other documents, as may be required by law, to:

- (1) Enter the premise(s) where a regulated activity is conducted, or where records must be kept as required under the conditions of a Rhode Island Pollutant Discharge Elimination System permit.
- (2) Have access to and copy, at reasonable times, any records that must be kept as required under the conditions of a Rhode Island Pollutant Discharge Elimination System permit.
- (3) Inspect at reasonable times any equipment, practices, or operations regulated or required under a Rhode Island Pollutant Discharge Elimination System permit.
- (4) Sample or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring compliance with a Rhode Island Pollutant Discharge Elimination System permit.

## **Section 21-148 Notification of Noncompliance.**

If the Authorized Enforcement Agent finds a violation of this ordinance then a written notice from the Authorized Enforcement Agent to compel correction shall be transmitted to the Owner or Operator. Such notice shall set forth the nature of corrections required and the time limit within which corrections shall be completed. Failure to comply with the required corrections within the specified time limit shall be considered a violation of this chapter.

Sets schedules of enforcement that allow the Town to recoup incurred repair costs, charge penalties, and refer cases to court as needed.

## **Section 21-149 Appeal of Notice of Noncompliance.**

Any Person receiving a notice of noncompliance may appeal the determination of the Authorized Enforcement Agent. The appeal must be received within 30 days from the date of the receipt of the notice of noncompliance. The appeal shall be in writing and contain a detailed basis upon which the appeal was taken. The Authorized Enforcement Agent shall then determine whether to accept the appeal or proceed to cause summons of the appellant in accordance with Section 21-150 of this ordinance, Penalties for Violation.

**Section 21-150            Penalties for Violation.**

Any Person who shall violate any provision of this article shall be, punished in accordance with Section 1-13 of the Town of Hopkinton's Code of Ordinances. The Authorized Enforcement Agent may undertake measures necessary to abate the violation and restore the property at the Owner or Operators expense.

**Section 21-151            Cost of Abatement of the Violation.**

Within 30 days after abatement of the violation by or under the direction of the Authorized Enforcement Agent, the Owner or Operator will be notified by the Authorized Enforcement Agent of the cost of abatement, including administrative costs. If the amount due is not paid within a timely manner as determined by the Authorized Enforcement Agent, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. Any Person violating any of the provisions of this section shall become liable to the Town by reason of such violation. The liability shall be paid in not more than 12 equal payments. Interest at the rate of 12 percent per annum shall be assessed on the balance beginning on the 31<sup>st</sup> day following discovery of the violation.

**Section 21-152            Remedies not Exclusive.**

The remedies listed in this ordinance are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the Authorized Enforcement Agent to seek cumulative remedies.

**Section 21-153—21-159            Reserved.**

DRAFT—JUNE 2013

**CHAPTER 21            ORDINANCE  
CONCERNING POST-CONSTRUCTION  
STORM WATER CONTROL ORDINANCE**

We anticipate that the Town will add this ordinance as a chapter in the existing Code of Ordinances.

**Section 21-161            Purpose.**

(a) Unmitigated storm water from areas altered by development may pose public health and safety threats. Potential contaminants in storm water runoff may include suspended solids, nitrogen, phosphorus, hydrocarbons, heavy metals, pathogenic organisms (bacteria and viruses), and road salts.

(b) This Ordinance establishes the administrative mechanisms necessary for the Town of Hopkinton to ensure proper storm water management of runoff from new development and redevelopment projects. The Ordinance is written to work in conjunction with the Rhode Island Department of Environmental Management's ("DEM") *General Permit Rhode Island Pollutant Discharge Elimination System Storm Water Discharge from Small Municipal Separate Storm Sewer Systems and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s*.

**Section 21-162            Applicability.**

This Ordinance shall apply to all development and redevelopment occurring within Hopkinton. No person shall engage in Development Projects as defined in Section 15.5-5 of the Soil Erosion and Sedimentation Control Ordinance without receiving approval from the Planning Board, unless specifically exempted by Section 21-163 of this Ordinance.

We made the applicability, exemptions and variances of this ordinance synonymous with the proposed Soil Erosion and Sedimentation Control Ordinance for ease of administration.

**Section 21-163            Exemptions.**

The following Development Projects do not require written approval pursuant to this Ordinance:

- (1) Construction, alteration, or use of any additions to existing single-family or two-family homes or related structures, when determined by the Building and Zoning Official to be insignificant, and such construction, alteration and use does not exceed one thousand (1,000) square feet, does not occur within 100 feet of any watercourse or coastal feature, and the slopes at the site of land disturbance do not exceed 10%;
- (2) Accepted agricultural management practices such as seasonal tilling and harvest activities associated with property utilized for private or commercial agricultural or silvicultural purposes;

- (3) An excavation which exhibits all of the following characteristics:
- a. Is less than four (4) feet in vertical depth at its deepest point as measured from the average elevation of the natural ground surface; and
  - b. Does not result in a total displacement of more than fifty (50) cubic yards of material on any lot, land, parcel or subdivision; and
  - c. Has no slopes steeper than ten (10) feet vertical in one hundred (100) feet horizontal (10 percent); and
  - d. Has all disturbed surface areas promptly and effectively protected to prevent soil erosion and sedimentation from occurring including seeding or sodding, and provided that all disturbed surface areas which will be exposed for a period of time in excess of thirty (30) days shall be covered with a suitable temporary protective ground cover until permanent ground cover is in place.
- (4) Grading, as a maintenance measure, or for landscaping purposes on existing developed land parcels or lots, provided that all of the following conditions are met:
- a. The aggregate area of activity does not exceed one thousand (1,000) square feet; and
  - b. The change of elevation does not exceed two (2) feet at any point; and
  - c. All bare surface area is promptly seeded, sodded, or otherwise effectively protected from erosive actions;
  - d. The grading does not involve a quantity of fill greater than eighteen (18) cubic yards; except where fill is excavated from another portion of the same parcel and the quantity does not exceed fifty (50) cubic yards.
- (5) Grading, filling, removal or excavation activities and operations undertaken by the Town under the direction and supervision of the Director of Public Works for work on streets, roads or rights-of-way dedicated to public use; provided, however, that adequate and acceptable erosion and sediment controls are incorporated in engineering plans and specifications and employed. Appropriate controls shall apply during construction as well as after the completion of such activities.
- (6) Use of a home garden in association with residential use.

- (7) Installation of onsite wastewater treatment system test pits for the purpose of soil evaluations and permitting provided that they are backfilled and restored to original condition in accordance with the requirements of the State of Rhode Island immediately following their use.

#### **Section 21-164          Variance.**

The Planning Board reviewing an application under this Ordinance may:

- (1) Vary requirements of this Ordinance when strict implementation of the requirements will create an unnecessary hardship or are not feasible.
- (2) Allow use of an innovative management practice where strict adherence to existing criteria would be costly or of negligible environmental benefit.
- (3) Allow use of an innovative management practice where the innovative practice is expected to have an environmental benefit, which cannot be practicably realized using standardized management practices.

#### **Section 21-165          Submissions and Approvals.**

(a) In accordance with this Ordinance, all persons must obtain approval from the Planning Board prior to engaging in any land development activities, unless exempted by Section 21-163 of this Ordinance. To obtain approval applicants must demonstrate compliance with all policy, standards and requirements of this Ordinance to the satisfaction of the Planning Board. Applicants may demonstrate compliance via submission of materials and documentation including but not limited to a Storm Water Management Plan, site plan and maintenance agreement in accordance with this Ordinance. Plans will be reviewed in conjunction with site plan reviewed by the Planning Board.

(b) Pre-application meetings may be requested by the applicant and held at the discretion of the Town for the purpose of informing the representatives of construction projects of any local requirements and any additional limitations that may be imposed.

Pre-application meetings are available on an as-needed basis.

#### **Section 21-166          Technical Standards.**

All applicants are required to develop and submit a Storm Water Management Plan prepared by a professional engineer licensed in the State of Rhode Island. All Storm Water Management Plans must address storm water management on a site-by-site basis and all requirements of this Ordinance. All storm water management practices shall be consistent with the *Rhode Island Stormwater Design and Installation Standards Manual* and the *Rhode Island Soil Erosion and Sediment Control Handbook*, as amended.

Technical standards are set to refer to state standards as amended.

(a) *Performance Standards.* Storm Water Management Plans shall incorporate structural and non-structural Best Management Practices (BMPs) for water quality control, in accordance with the *Rhode Island Stormwater Design and Installation Standards Manual*. Development in drinking water supply watersheds or watersheds where impaired waters as defined by the State's 303(d) list exist may be held to higher standards.

(b) *Disallowed Storm Water Best Management Practices.* The placement of storm water structures within a floodplain shall be avoided. If there is no alternative, the applicant must show what effects, if any, the tailwaters created by the floodplain will have on the outflow and effective storage capacity of the storm water best management practice.

(c) *Facilitation of Maintenance.* Facilities that require maintenance shall be designed to minimize the need for regular maintenance, facilitate required maintenance, and ensure accessibility of components that require maintenance. At a minimum, all Storm Water Management Plans must incorporate BMPs with appropriate maintenance design in accordance with the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended.

(d) *Flood Protection.* Storm Water Management Plans shall demonstrate that a proposed project provides for protection of life and property from flooding and flood flows. Water quantities must be controlled in accordance with the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended, or a municipally approved regional Storm Water Management Plan for the watershed in which the project site is located. Storm Water Management Plans shall demonstrate incorporation of the following standards into the proposed project:

(1) Control and maintenance of post development peak discharge rates from storm events to predevelopment levels in accordance with the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended.

(2) Downstream analysis of the 100-year storm event and control of the peak discharge rate for the 100-year storm to mitigate downstream impacts.

(3) Discharge from any storm water facility must be conveyed through properly constructed conveyance system to provide for nonerosive flows during all storm events. The proposed storm water conveyance system consisting of open channels, pipes, and other conveyance devices shall at a minimum accommodate the runoff from a 25-year storm event. The storm water conveyance system must provide for nonerosive flows to receiving waters.

(e) *Surface Water and Groundwater.* Storm Water Management Plans shall, in accordance with the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended, demonstrate that during development and postdevelopment, all receiving waters will be recharged in a manner closely resembling predevelopment conditions and that the developed site will retain hydrological conditions that closely resemble

of those prior to disturbance. The goal of the storm water design shall be that hydrologic conditions in each subwatershed match predevelopment conditions.

Where practicable, development and redevelopment projects should aim to reduce runoff volumes. This may include minimizing and eliminating impervious surface areas such as roads, parking, paving or other surfaces, encouraging infiltration of non-contaminated runoff, preventing channelization, encouraging sheet flow, and where appropriate, preserving, enhancing or establishing buffers along surface water bodies and tributaries.

**Section 21-167 Storm Water Management Plans.**

SWMPs based on the states model post-construction ordinance.

(a) *Calculations.* In addition to the information required for the site plan the following information must also be included with the application, where applicable.

- (1) The area of each subwatershed shall be identified on final site plans.
- (2) The area of impervious surfaces (including, but not limited to, roads, driveways, rooftops, sidewalks) for each subbasin as identified in the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended.
- (3) Weighted curve numbers as determined using *Urban Hydrology for Small Watersheds* (USDA Soil Conservation Service, 1986 or as amended).
- (4) Invert elevations for inlets and outlets. In addition, invert elevations shall be provided for all basins including permanent and/or flood pool stages, including peak discharge rates for each stage.
- (5) The total volume capacity for all flood control and water quality BMPs (e.g., infiltration basin, detention basins, wet ponds, etc.). Volumes must be segregated into permanent and flood pool stage volumes where applicable. Furthermore, the volumes of all sediment storage (basins, forebays, etc.) areas must also be provided.
- (6) Pre-development and post-development peak discharge rates and runoff volumes for the 2-year, 10-year, 25-year, and 100-year frequency storm events for each subwatershed to each separate water or discharge point. The water quality volume must also be calculated for each subwatershed. All relevant variables such as curve numbers and time of concentration, along with the supporting computations and worksheets must be included. The entire site shall be included in an evaluated subwatershed.
- (7) Supporting calculations to demonstrate that the proposed Development Project will meet Section 21-166 of this ordinance.

(b) *Narrative Description.* As part of the Storm Water Management Plan, the applicant shall include a discussion of the protection of environmental resource functions and

values. The following outline is provided as guidance for preparing a narrative description for the Storm Water Management Plan. Depending on the size and scope of the proposed project, the amount of information required by the Town may vary; therefore, it is advised to consult the Town for specific requirements.

- (1) Site description – general topography, soil types, current vegetative composition and relative abundance, existing infrastructure, and adjacent properties, identification of major resources (e.g., wetlands, groundwater, surface waters, etc.), name of receiving water(s), potential water quality and hydrologic impacts on resources.
- (2) Site input data – watershed characteristics, area of all impervious surfaces, total area of site, annual mean rainfall, runoff coefficients, curve numbers for various land uses, peak discharge rates.
- (3) Land use planning and source control plan.
- (4) Best management practices – identify the type of BMP(s) employed both during and post construction and justification for selection, including any deviation from the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended, and the potential effect on pollutant removal efficiency.
- (5) Technical feasibility – include sizing, location, hydraulic and environmental impacts. Alternatives, which were considered but determined not to be feasible, should also be discussed.
- (6) Maintenance schedule – of BMPs to be used, both during and post construction including frequency of inspection and maintenance.

#### **Section 21-168                    Inspections for Storm Water Best Management Practices.**

The Town shall have the right to inspect best management practices constructed after the passage of this ordinance. Inspections shall address whether best management practices have been installed in accordance with approved storm water management plans.

**Sections 21-168 through 21-170 make O&M the responsibility of the Owner, but give the Town authority to check and inspect as needed.**

#### **Section 21-169                    Operation and Maintenance Requirements for Best Management Practices.**

- (a) *Routine Operation and Maintenance and Repair Procedures.* Routine maintenance shall be performed on a regular basis to ensure proper performance and may include such routine procedures as training of staff, periodic inspections, grass cutting elimination of mosquito breeding habitats, and pond maintenance in accordance with a storm water management plan approved pursuant to this ordinance. Repair procedures may be required to correct a problem or malfunction of a storm water management practice and to restore the management practice's intended operation and safe

condition. Repairs may include such procedures as structural repairs, removal of debris, sediment and trash removal, erosion repair, snow and ice removal, fence repair, mosquito extermination, and restoration of vegetated and non-vegetated linings.

(b) *General Operation and Maintenance Standards for Storm Water Best Management Practices.* Maintenance design and maintenance procedures for all storm water management practices shall be documented in Storm Water Management Plans in accordance with *Rhode Island Stormwater Design and Installation Standards Manual*, as amended; or Manufacturer's specifications. A maintenance schedule for each type of BMP must be included in the Storm Water Management Plan. These schedules shall list the frequency and type of maintenance operations necessary along with the legally responsible party's name, address, and telephone number. The Owner, as well as all future Owners, shall be required to implement the maintenance schedule of the best management practices. If the storm water facility is to be deeded to the Town, the applicant must obtain a letter from the Town acknowledging maintenance responsibility and intent of ownership.

## **Section 21-170                      Maintenance Agreements.**

(a) Maintenance agreements shall provide written, contractual documentation, which demonstrates compliance with this Ordinance and legal arrangements for the upkeep of storm water facilities to assure their proper function and safety in accordance with this Ordinance.

(b) After final construction is completed, the Owner or responsible person shall maintain "as built" plans of storm water management practices located on-site. The plans must show the final design specifications for all storm water management facilities and must be certified by a professional engineer.

(c) Maintenance agreements, which describe maintenance schedules and requirements, must be developed for each storm water management facility unless the facility is dedicated to and accepted by the Town of Hopkinton. Schedules shall be based on the complexity and frequency of maintenance needs and shall be subject to the approval of the Town. At a minimum, maintenance frequency should be in accordance with the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended.

(d) *Right of Entry.* Upon the presentation of credentials and other documents, as may be required by law, or if authorized by the Owner or other party in control of the property, the Director of Public Works, Building and Zoning Official, and other Town representatives designated by the Building and Zoning Official or Director of Public Works may enter upon privately owned property for the purpose of performing their duties under this Ordinance and may make or cause to be made such inspections as the Town deems reasonably necessary.

(e) *Record Keeping for Maintenance Activities.* Maintenance agreements shall include provisions for maintenance record keeping. All activities conducted in accordance with a maintenance agreement must be recorded in a work order and inspection log. Timely updates of the log shall be the responsibility of the storm water management facility owner or other responsible party pursuant to this Ordinance. Review of the maintenance and inspection log shall be completed by the Town of Hopkinton to determine the effectiveness of operation, maintenance and safety activities. Reviews shall occur as part of each on-site inspection. Additional reviews may be made as deemed appropriate by the Town of Hopkinton.

(f) *Responsibility for Maintenance to Assure Function and Safety.* Appropriate maintenance to assure function and safety of storm water management facilities shall be the responsibility of the Owner or may be assumed by another party via a written contractual arrangement in accordance with this Ordinance.

(g) *Alterations to Maintenance Agreements.* Any alterations in maintenance responsibility or alterations to maintenance agreements must be reviewed and approved by the Planning Board or designee. If portions of the land serviced by a storm water management facility are to be sold, written contractual arrangements shall be made to pass all responsibility of the maintenance agreement to the purchaser and shall be subject to review and approval of the Building and Zoning Official or designee. All alterations to maintenance agreements shall be made and recorded in accordance with this Ordinance.

(h) *Recordation of Maintenance Agreements.* All maintenance agreements and alterations to maintenance agreements shall be recorded in the land evidence records of the Town of Hopkinton. Copies of all maintenance agreements and alterations to maintenance agreements shall be included in Storm Water Management Plans. Recordation of maintenance agreements in accordance with this Ordinance shall be the responsibility of the Owner.

## **Section 21-171            Application Fees.**

The Town of Hopkinton shall be empowered to collect fees from permit applicants, which are commensurate with the cost of administering this Ordinance.

## **Section 21-172            Notification of Noncompliance.**

If the Authorized Enforcement Agent finds a violation of this ordinance then a written notice from the Authorized Enforcement Agent to compel correction shall be transmitted to the Owner or Operator. Such notice shall set forth the nature of corrections required and the time limit within which corrections shall be completed. Failure to comply with the required corrections within the specified time limit shall be considered a violation of this chapter.

Section 21-172 through 21-176 set schedules of enforcement that allow the Town to recoup incurred repair costs, charge penalties, and refer cases to court as needed.

**Section 21-173            Appeal of Notice of Noncompliance.**

Any Person receiving a notice of noncompliance may appeal the determination of the Authorized Enforcement Agent. The appeal must be received within 30 days from the date of the receipt of the notice of noncompliance. The appeal shall be in writing and contain a detailed basis upon which the appeal was taken. The Authorized Enforcement Agent shall then determine whether to accept the appeal or proceed to cause summons of the appellant in accordance with Section 21-174, Penalties for Violation.

**Section 21-174            Penalties for Violation.**

Any Person who shall violate any provision of this article shall be punished in accordance with Section 1-13 of the Town of Hopkinton's Code of Ordinances. The Authorized Enforcement Agent may undertake measures necessary to abate the violation and restore the property at the Owner or Operators expense.

**Section 21-175            Cost of Abatement of the Violation.**

Within thirty (30) days after abatement of the violation by or under the direction of the Authorized Enforcement Agent, the Owner or Operator will be notified by the Authorized Enforcement Agent of the cost of abatement, including administrative costs. If the amount due is not paid within a timely manner as determined by the Authorized Enforcement Agent, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. Any Person violating any of the provisions of this section shall become liable to the Town by reason of such violation. The liability shall be paid in not more than 12 equal payments. Interest at the rate of 12 percent per annum shall be assessed on the balance beginning on the 31<sup>st</sup> day following discovery of the violation.

**Section 21-176            Remedies not Exclusive.**

The remedies listed in this ordinance are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the Authorized Enforcement Agent to seek cumulative remedies.

**Section 21-177—21-189            Reserved**

## Appendix H

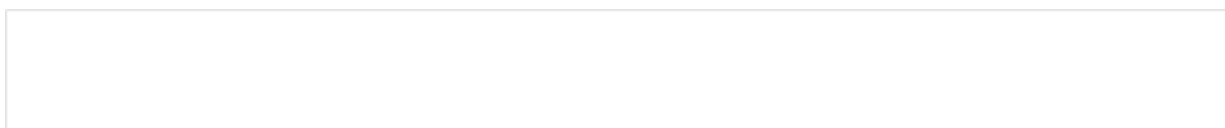
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### Illicit Discharge Detection Method

1. Delineate the drainage area of each outfall with a dry weather flow component to determine the extent of potential sources. This could be done by two methods.
  - Utilize TV inspection to identify sources of the dry weather flows. This inspection could identify the extent of the system where there is a dry weather flow component and identify connections to the storm sewer that are contributing dry weather flow.
  - Inspect the drainage system, structure by structure, to determine the extent of the system where there is a dry weather flow component. At this time, the system and its connections where a dry weather flow component was observed, should be mapped, or sketched a minimum. This should be the first task completed as it will limit the extent of the investigation.
2. Inventory the drainage area of each outfall of concern to evaluate the locations of potential pollutant sources. This will consist of reviewing land use and street maps to identify potential pollutant sources in the drainage area. In addition, water quality data from the outfall of concern should be reviewed to determine what the potential sources may be.
3. Conduct additional “targeted” wet or dry weather sampling at selected locations down-gradient of suspected pollutant sources to “bracket” sources of pollutants in the system. Sampling should include flow metering such that loads of pollutants of concern can be calculated and to minimize potential interferences from clean groundwater diluting the illicit discharge. Based on experience with past projects, this effort will also be able to specifically identify sources. Parameters monitored should be consistent with parameters observed in the discharge.
4. Conduct detailed field inventory. Field inventories should be performed on foot and via windshield surveys, beginning at the point discharge, and following the bracketed drainage system up-gradient. The purpose of the field inventories is to further define what the potential source(s) may be.
5. Conduct a site investigation for each suspected source. This can be completed via one of several methods to specifically identify a source. This can include the following methods:
  - TV inspection to find a specific connection that is contributing dry weather flow. In high groundwater conditions, this method will be less useful. Also, it may be difficult to pin point a specific source in densely developed areas.
  - Smoke testing could also be used to identify illicit connections. Neighborhoods would need to be warned prior to use of smoke testing in their area. Also, this method may not be effective if the illicit discharges are flowing full or are equipped with traps.



- Dye testing would pinpoint a specific discharge. This would require access into buildings and inserting dye at all potential illicit discharges which will require the field staff to be thorough. Permission would be required to enter businesses.
6. Eliminate the illicit discharge once found.
  7. Confirm elimination of illicit discharges by collecting appropriate confirmation samples. This could either be done at the outfall or just downstream of the eliminated discharge.



## Appendix I

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### Existing Town Ordinances

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# **ZONING**

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## **TOWN OF HOPKINTON RHODE ISLAND**

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This pamphlet is a reprint of Appendix A, Zoning of the Code of Ordinances of the Town of Hopkinton, Rhode Island, published by the order of the Town Council.

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MUNICIPAL CODE CORPORATION

Tallahassee, Florida

1995

Reprinted 1997

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## APPENDIX A ZONING\*

### Chapter 134

#### ZONING ORDINANCE

An ordinance in amendment of Chapter 28 entitled "Zoning Ordinance," as amended. In accordance with the provisions of R.I.G.L., chapter 45-24, including those sections known as the "Rhode Island Zoning Enabling Act of 1991," it is ordained by the Town Council of the Town of Hopkinton that Chapter 28 of the

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\*Editor's note-Ch. 134, §§ 1-35, with appendices A-F, adopted December 19, 1994, did not specifically amend the Code and has been included herein as superceding the provisions of former Appendix A, relative to zoning, which derived from Ch. 28, effective March 23, 1971; Ch. 35, adopted Feb. 25, 1974; Ch. 38, adopted June 23, 1975; Ch. 56, adopted Feb. 4, 1980; Ch. 70, adopted October 18, 1982; Ch. 77, § 1, adopted Aug. 19, 1985; Ch. 78, §§ 1, 2, adopted Feb. 3, 1986; Ch. 81, § 1, adopted May 5, 1986; Ch. 83, § 1, adopted Oct. 6, 1986; Ch. 89, §§ 1-3, adopted Feb. 2, 1987; Ch. 91, § 2, adopted Sept. 28, 1987; Ch. 92, § 1, adopted Oct. 5, 1987; Ch. 93, § 1, adopted Oct. 5, 1987; Ch. 110, § 1, adopted July 2, 1990 (not included in Code Book).

Printed herein is the zoning ordinance for the town adopted by chapter 134 on December 19, 1934. Style and capitalization have been made uniform. Obvious misspelled words have been corrected without notation. Words added for clarification have been added in brackets [ ].

Cross references--Conservation commission created to promote and develop natural resources, natural aesthetic areas, open areas, streams, shores, etc., § 2-66 et seq.; planning commission created, § 2-111 et seq.; animals, Ch. 4; buildings and building regulations, Ch. 5; fire prevention and protection, Ch. 6; historic preservation, Ch. 7; housing, Ch. 7.5; mobile homes and mobile home parks and camping areas, Ch. 9; mobile home parks, § 9-26 et seq.; application for mobile home park license shall include a preliminary plat, § 9-47; nuisances, Ch. 10; noise regulations, § 10-51 et seq.; parks and recreation, Ch. 11; peddlers and solicitors, Ch. 12; hawking, shouting, etc. of peddlers and solicitors restricted, § 12-7; planning and development, Ch. 13.5; automobile junkyards, § 15-51 et seq.; solid waste, ch. 16; streets, sidewalks and other public places, Ch. 17; subdivisions, Ch. 18; residential compounds areas, § 18-141 et seq.; minimum size of lots, density, etc., in residential compounds, § 18-144; setbacks in residential compounds, § 18-145; cluster residential development, § 18-176 et seq.

State law reference-Zoning, G.L. 1956, § 45-24-1 et seq.

## HOPKINTON CODE

General Ordinances of the Town of Hopkinton entitled "Zoning Ordinance," as amended, be repealed and that it be revised as follows:

### Section 1. General purpose.

The zoning regulations set forth in this ordinance have been developed in accordance with the comprehensive plan for the Town of Hopkinton prepared and adopted in accordance with R.I.G.L., chapter 45-22.2, and shall be maintained in accordance with said plan as it may be amended, to address the following purposes, each with equal priority and numbered for reference purposes only:

- (1) To promote the public health, safety, and general welfare.
- (2) To provide for a range of uses and intensities of use appropriate to the character of the town, and reflecting current and expected future needs.
- (3) To provide for orderly growth and development which recognizes:
  - (a) The goals and patterns of land use contained in the Hopkinton Comprehensive Community Plan adopted pursuant to R.I.G.L., chapter 45-22.2;
  - (b) The natural characteristics of the land, including its suitability for use based on soil characteristics, topography, and susceptibility to surface or groundwater pollution;
  - (c) The values and dynamic nature of freshwater ponds and wetlands;
  - (d) The values of unique or valuable natural resources and features;
  - (e) The availability and capacity of existing and planned public and/or private services and facilities, and the lack of feasibility of providing public sewage disposal or the extension of public water facilities;
  - (f) The need to shape and balance suburban and rural development; and

- (g) The use of innovative development regulations and techniques.
- (4) 'Th provide for the control, protection, and/or abatement of air, water, groundwater, and noise pollution, and soil erosion and sedimentation.
- (5) 'Th provide for the protection of the natural, historic, cultural, and scenic character of the 'lbwn of Hopkinton or areas therein.
- (6) 'Th provide for the preservation and promotion of agricultural production, forest, silviculture, aquaculture, timber resources, and open space.
- (7) 'Th provide for the protection of public investment in transportation, water, stormwater management systems, sewage treatment and disposal, solid waste treatment and disposal, schools, recreation, public facilities, open space, and other public requirements.
- (8) 'Th promote a balance of housing choices, for all income levels and groups, to assure the health, safety and welfare of all citizens and their rights to affordable, accessible, safe, and sanitary housing.
- (9) 'Th provide opportunities for the establishment of low and moderate income housing.
- (10) 'lb promote safety from fire, flood, and other natural or man-made disasters.
- (11) 'Th promote a high level of quality in design in the development of private and public facilities.
- (12) 1b promote the implementation of the Hopkinton Comprehensive Community Plan adopted pursuant to R.I.G.L., chapter 45-22.2.
- (13) 'Th provide for coordination of land uses with contiguous municipalities, other municipalities, the state, and other agencies, as appropriate, especially with regard to resources and facilities that extend beyond 'Thwn of Hopkinton boundaries or have a direct impact on the 'Thwn of Hopkinton.
- (14) 'lb provide for efficient review of development proposals, to clarify and expedite the zoning application process.

- (15) To provide for procedures for the administration of the Zoning Ordinance.

(Ch. 134, § 1, 12-19-94)

## Section 2. Definitions.

The following words or terms used in this ordinance shall have the following meanings:

- (1) *Abutter*. One whose property adjoins at a border, boundary, or point with no intervening land.
- (2) *Accessory family dwelling unit*. An accessory dwelling unit for the sole use of one or more members of the family of the occupant or occupants of the principal residence, but not needing to have a separate means of ingress and egress.
- (3) *Accessory use/structure*. A use of land or of a building, or portion thereof, customarily incidental and subordinate to the principal use of the land or building or the structure in which the use takes place. The incidental sale of products raised on a farm shall be considered accessory thereto.
- (4) *Aggrieved party*. An aggrieved party is:
  - (a) Any person or persons or entity or entities who can demonstrate that their property will be injured by a decision of any officer or agency responsible for administering the Zoning Ordinance of the Town of Hopkinton; or
  - (b) Anyone requiring notice pursuant to R.I.G.L., chapter 45-24.
- (5) *Agricultural land*. "Agricultural land," as defined [in] R.I.G.L., chapter 45-22.2-4, as may be amended: Agricultural land means land suitable for agriculture by reason of suitability of soil or other natural characteristics or past use for agricultural purposes. Agricultural land includes that defined as prime farm land or additional farm land of statewide importance for Rhode Island by the Soil Conservation Service of the United States Department of Agriculture.
- (6) *Applicant*. An owner or authorized agent of the owner submitting an application or appealing an action of any official, board or agency of the Town of Hopkinton.

- (7) *Application*. The completed form or forms and all accompanying documents, exhibits, and fees required of an applicant by an approving authority for development review, approval, or permitting purposes.
- (8) *Buffer*. Land which is maintained in either a natural or landscaped state, and is used to screen and/or mitigate the impacts of development on surrounding areas, properties or rights-of-way.
- (9) *Building*. Any structure used or intended for supporting or sheltering any use or occupancy.
- (10) *Building envelope*. The three-dimensional space within which a structure is permitted to be built on a lot and which is determined by regulations including those governing building setbacks, maximum height, and lot coverage.
- (11) *Building height*. The vertical distance from average finished grade to the top of the highest point of the roof or structure. The distance may exclude spires, chimneys, flag poles, and the like.
- (12) *Cluster development*. A site planning technique that concentrates buildings in specific areas on the site to allow the remaining land to be used for recreation, common open space, and/or preservation of environmentally, historically, culturally, or other sensitive features and/or structures. The techniques used to concentrate buildings are specified chapter 123 [chapter 18, §§ 18-180-18-200] of the General Ordinances of the Town of Hopkinton. Under cluster development there is no increase in the number of lots over that which would be permitted under conventional development except for provisions which include incentive bonuses for certain types or conditions of development.
- (13) *Common ownership*. Either:
  - (a) Ownership by one (1) or more individuals or entities in any form of ownership of two (2) or more contiguous lots; or
  - (b) Ownership by any association (such ownership may also include a municipality) of one (1) or more lots under specific development techniques.

- (14) *Community residence.* A home or residential facility where children and/or adults reside in a family setting and may or may not receive supervised care. This shall not include halfway houses or substance abuse treatment facilities. This shall include, but not be limited to the following:
- (a) Whenever six (6) or fewer retarded children or adults reside in any type of residence in the community, as licensed by the state pursuant to R.I.G.L., chapter 40.1-24. All requirements pertaining to local zoning are waived for these community residences;
  - (b) A group home providing care or supervision, or both, to not more than eight mentally disabled or mentally handicapped or physically handicapped persons, and licensed by the state pursuant to R.I.G.L., chapter 40.1-24;
  - (c) A residence for children providing care or supervision, or both, to not more than eight children including those of the care giver and licensed by the state pursuant to R.I.G.L., chapter 42-72.1;
  - (d) A community transitional residence providing care or assistance, or both, to no more than six (6) unrelated persons or no more than three (3) families, not to exceed a total of eight (8) persons, requiring temporary financial assistance, and/or to persons who are victims of crimes, abuse, or neglect, and who are expected to reside in that residence not less than sixty (60) days nor more than two (2) years. Residents will have access to and use of all common areas, including eating areas and living rooms, and will receive appropriate social services for the purpose of fostering independence, self-sufficiency, and eventual transition to a permanent living situation.
- (15) *Comprehensive plan.* The Comprehensive Plan of the Town of Hopkinton adopted and approved pursuant to R.I.G.L., chapter 45-22.2, and to which any zoning adopted pursuant to R.I.G.L., chapter 45-24, shall be in compliance.
- (16) *Day care-Day care center.* Any other day care center which is not a family day care home.

- (17) *Day care-Family day care home*. Any home other than the individual's home in which day care in lieu of parental care or supervision is offered at the same time to six (6) or less individuals who are not relatives of the care giver, but may not contain more than a total of eight (8) individuals receiving day care.
- (20) *Density, residential*. The number of dwelling units per unit of land.
- (21) *Development*. The construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; any mining, excavation, landfill or land disturbance; any change in use, or alteration or extension of the use, of land.
- (22) *Development plan review*. The process whereby authorized local officials review the site plans, maps, and other documentation of a development to determine the compliance with the stated purposes and standards of the ordinance.
- (23) *District*. See "zoning use district."
- (24) *Drainage system*. A system for the removal of water from land by drains, grading, or other appropriate means. These techniques may include runoff controls to minimize erosion and sedimentation during and after construction or development, the means for preserving surface and groundwaters, and the prevention and/or alleviation of flooding.
- (25) *Dwelling unit*. A structure or portion thereof providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation, and containing a separate means of ingress and egress.
- (26) *Extractive industry*. The extraction of minerals, including: solids, such as coal and ores, and sand and gravel; liquids, such as crude petroleum; and gases, such as natural gases. The term also includes quarrying; well operation; milling, such as crushing, screening, washing, and flotation; and other preparation customarily done at the extraction-site or as a part of the extractive activity.

- (27) *Family*. A person or persons related by blood, marriage, or other legal means. See also "Household."
- (28) *Floating zone*. An unmapped zoning district adopted within the ordinance which is established on the zoning map only when an application for development, meeting the zone requirements, is approved.
- (29) *Floodplains, or flood hazard area*. As defined in R.I.G.L., § 45-22.2-4, as may be amended: Floodplains or flood hazard area means an area that has a one (1) percent or greater chance of inundation in any given year, as delineated by the Federal Emergency Management Agency pursuant to the National Flood Insurance Act of 1968, as amended (P.L. 90-448) [42 U.S.C. 4011 et seq.].
- (30) *Halfway houses*. A residential facility for adults or children who have been institutionalized for criminal conduct and who require a group setting to facilitate the transition to a functional member of society.
- (31) *Hardship*. See section 9 Variances.
- (32) *Historic district, or historic site*. As defined in R.I.G.L., §§ 45-22.2-4 (15) & (16) as may be amended:
  - (a) *Historic district* means one or more historic sites and intervening or surrounding property significantly affecting or affected by the quality and character of the historic site or sites, and has been registered, or is deemed eligible to be included, on the state register of historical places pursuant to R.I.G.L., § 42-45-5.
  - (b) *Historic site* means any real property, man made structure, natural object, or configuration or any portion or group of the foregoing which has been registered, or is deemed eligible to be included, on the state register of historic places pursuant to R.I.G.L., § 2-45-5.
- (33) *Home occupation*. Any activity customarily carried out for gain by a resident, conducted as an accessory use in the resident's dwelling unit, employing not more than one (1) employee from outside the home on the premises. The term "home occupation" includes the office of a contractor together with the daily storage on the property of not more than

three commercially registered motor vehicles of a size not exceeding a gross vehicle weight rating of 20,000 pounds, provided the outside storage of equipment and material in conjunction therewith is not permitted.

- (34) *Household*. One (1) person living alone or two (2) or more persons living together in a single dwelling unit, with common access to, and common use of, all living and eating areas and all areas and facilities for the preparation and storage of food within the dwelling unit. The term "household unit" shall be synonymous with the term "dwelling unit" for determining the number of such units allowed within any structure on any lot in a zoning district. An individual household consists of either of the following:
  - (a) A family, which may also include servants and employees living with the family; or
  - (b) A person living alone or a group of unrelated persons living together. The number in such a group shall not exceed four (4).
- (35) *Impervious surface*. Surfaces on a lot that inhibit the absorption of water into the underlying soil including concrete, pavement, and the like.
- (36) *Incentive zoning*. The process whereby the town council or planning board, as may be appropriate, may grant additional development capacity in exchange for the developer's provision of a public benefit or amenity as specified in the zoning ordinance and subdivision regulations.
- (37) *Infrastructure*. Facilities and services needed to sustain residential, commercial, industrial, institutional, and other activities.
- (38) *Land development project*. A project in which one (1) or more lots are to be developed or redeveloped as a coordinated site for a complex of uses, units, or structures, including, but not limited to, planned development and/or cluster development for residential, commercial, institutional, recreational, open space, and/or mixed uses as may be provided for in the zoning ordinance.

Note: For all lot definitions 39-46, refer to figures following this section which portray the various lot lines, configurations and lot dimensions

- (39) *Lot*. Either:
- (a) The basic development unit for determination of lot area, depth, and other dimensional regulations; or
  - (b) A parcel of land whose boundaries have been established by some legal instrument such as a recorded deed or recorded map and which is recognized as a separate legal entity for purposes of transfer of title.
- (40) *Lot area*. The total area within the boundaries of a lot, excluding any street right-of-way, usually reported in acres or square feet.
- (41) *Lot building coverage*. Determined by dividing the gross area of the lot by that portion of the lot that is or may be covered by buildings and accessory buildings, including covered porches.
- (42) *Lot depth*. The distance measured from the front lot line to the rear lot line. For lots where the front and rear lot lines are not parallel, the lot depth is an average of the depth.
- (43) *Lot frontage*. That portion of a lot abutting a street. Lot frontage must be contiguous frontage to be considered to meet minimum frontage requirements.
- (44) *Lot line*. A line of record, bounding a lot, which divides one (1) lot from another lot or from a public or private street or any other public or private space and shall include:
- (a) *Front*. The lot line separating a lot from a street or right-of-way. On an interior lot, the lot line abutting a street, or corner lot, the shorter lot line abutting a street, or a through lot, the lot line abutting the street providing the primary access to the lot;
  - (b) *Rear*. The lot line opposite and most distant from the front lot line, or in the case of triangular or otherwise irregularly shaped lots, an assumed line at least ten (10) feet in length entirely within the lot, parallel to and at a maximum distance from the front lot line. In the event that the front property line is a curved line, then the rear property line shall be assumed to be a line not less than ten (10) feet long, lying within the lot and parallel to a line tangent to the front property line at its midpoint; and

- (c) *Side*. Any lot line other than a front or rear lot line. On a comer lot, a side lot line is along the street lot line which is not established as the front lot line.
- (45) *Lot, through*. A lot which fronts upon two (2) substantially parallel streets, or which fronts upon two (2) streets which do not intersect at the boundaries of the lot, and which is not a comer lot.
- (46) *Lot width*. The horizontal distance between the side lines of a lot measured at right angles to its depth along a straight line parallel to the front lot line at the minimum front setback line.
- (47) *Mere inconvenience*. Shall mean that there is no other reasonable alternative to enjoy a legally permitted beneficial use of one's property. The fact that a use may be more profitable or that a structure may be more valuable after the relief is granted shall not be grounds for relief.
- (48) *Mixed use*. A mixture of land uses within a single development, building, tract or parcel.
- (49) *Modification*. Permission granted and administered by the Zoning Enforcement Officer of the Thwn of Hopkinton, and pursuant to the provisions of R.I.G.L., chapter 45-24 to grant a dimensional variance other than lot area requirements from the zoning ordinance to a limited degree, but not to exceed the specified percentage of each of the applicable dimensional requirements as shown in section 13, Modification or Adjustment.
- (50) *Nonconformance*. A building, structure, or parcel of land, or use thereof, lawfully existing at the time of the adoption or amendment of the zoning ordinance and not in conformity with the provisions of such ordinance or amendment. Nonconformance is of only two types:
- (a) *Nonconforming by use*. A lawfully established use of land, building, or structure which is not a permitted use in that zoning district. A building or structure containing more dwelling units than are permitted by the use regulations of the zoning ordinance shall be nonconforming by use; or

- (b) *Nonconforming by dimension.* A building, structure, or parcel of land not in compliance with the dimensional regulations of the zoning ordinance. Dimensional regulations include all regulations of the zoning ordinance, other than those pertaining to the permitted uses. A building or structure containing more dwelling units than are permitted by the use regulations of the zoning ordinance shall be nonconforming by use; a building or structure containing a permitted number of dwelling units by the use regulations of the zoning ordinance, but not meeting the lot area per dwelling unit regulations, shall be nonconforming by dimension.
- (51) *Overlay district.* A district established in the zoning ordinance that is superimposed on one (1) or more districts or parts of districts and that imposes requirements in addition to those otherwise applicable for the underlying district.
- (52) *Performance standards.* A set of criteria or limits relating to elements which a particular use or process either must meet or may not exceed.
- (53) *Permitted use.* A use by right which is specifically authorized in a particular zoning district.
- (54) *Planned unit development.* A "land development project," as defined herein, and characterized by a unified site design for clustered buildings, common open space, and a mixture of building types and land uses. Planned unit development may be used for a variety of uses, such as residential complexes, shopping centers, industrial and office parks, and mixed-use developments.
- (55) *Planning board.* The Hopkinton Planning Board.
- (56) *Preapplication conference.* A review meeting held between applicants and reviewing agencies before formal submission of an application for a permit or for development approval.
- (57) *Setback line or lines.* A line or lines parallel to a lot line at the minimum distance of the required setback for the zon-

ing district in which the lot is located that establishes the area within which the principal structure must be erected or placed.

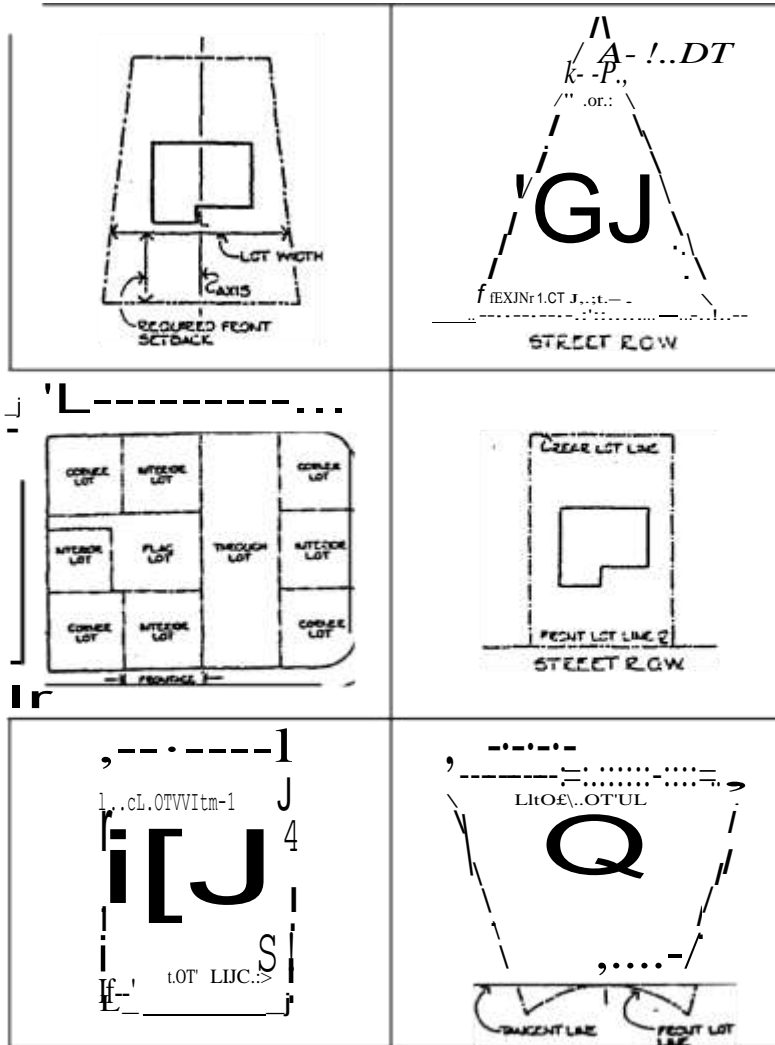
- (58) *Site plan*. The development plan for one (1) or more lots on which is shown the existing and/or the proposed conditions of the lot.
- (59) *Special use*. A regulated use which is permitted pursuant to the special-use permit issued by the authorized governmental entity, formerly referred to as a special exception.
- (60) *Street right-of-way*. An area or strip of land, either public or private, on which an irrevocable right-of-passage has been recorded in the land evidence records intended for use as a street for vehicles or pedestrians or both.
- (61) *Structure*. A combination of materials to form a construction for use, occupancy, or ornamentation, whether installed on, above, or below, the surface of land or water.
- (62) *Substandard lot of record*. Any lot lawfully existing at the time of adoption or amendment of the zoning ordinance and not in conformance with the dimensional and/or area provisions of that ordinance.
- (63) *Town council*. The Hopkinton town council.
- (64) *Use*. The purpose or activity for which land or buildings are designed, arranged, or intended, or for which land or buildings are occupied or maintained.
- (65) *Variance*. Permission to depart from the literal requirements of the zoning ordinance. An authorization for the construction or maintenance of a building or structure, or for the establishment or maintenance of a use of land, which is prohibited by the zoning ordinance. There are two (2) categories of variance, a use variance or a dimensional variance.
  - (a) *Use variance*. Permission to depart from the use requirements of the zoning ordinance where the applicant for the requested variance has shown by evidence upon the record that the subject land or structure cannot yield any beneficial use if it is to conform to the provisions of the zoning ordinance.

- (b) *Dimensional variance*. Permission to depart from the dimensional requirements of the zoning ordinance, where the applicant for the requested relief has shown, by evidence upon the record, that there is no other reasonable alternative way to enjoy a legally permitted beneficial use of the subject property unless granted the requested relief from the dimensional regulations. However, the fact that a use may be more profitable or that a structure may be more valuable after the relief is granted shall not be grounds for relief.
- (67) *Waters*. As defined in R.I.G.L., chapter 46-12-1(b).
- (68) *Wetland, freshwater*. As defined in R.I.G.L., chapter 2-1-20.
- (69) *Zoning board*. The Hopkinton Zoning Board of Review.
- (70) *Zoning certificate*. A document signed by the zoning enforcement officer, as required in the zoning ordinance, which acknowledges that a use, structure, building or lot either complies with or is legally nonconforming to the provisions of the town zoning ordinance or is an authorized variance or modification therefrom.
- (71) *Zoning maps*. The map entitled: "lbwn of Hopkinton Zoning Map" prepared by Cherenzia & Assoc., Ltd., October 1994, Scale 1"=1200' and that set of maps entitled: "lbwn of Hopkinton Zoning District Maps," prepared by Cherenzia & Assoc., Ltd., October 1994, sheets 1--31, which maps are on file in the records of the town clerk of the lbwn of Hopkinton and which are adopted and made a part of this ordinance. The boundary lines of said districts are intended and are to be interpreted to follow the boundary lines of existing lots of record and the centerline of roadways, except as is clearly depicted to the contrary.
- (72) *Zoning ordinance*. Shall mean the Hopkinton Zoning Ordinance enacted by the town council of the lbwn of Hopkinton pursuant to R.I.G.L., chapter 45-24 and in the manner provided for the adoption of ordinances in the town's legislative or home rule charter, if any, which sets forth regulations and standards relating to the nature and extent of uses of land and structures, which is consistent with

the Hopkinton Comprehensive Community Plan as defined in R.I.G.L., chapter 45-22.2, which includes the Hopkinton zoning map, and which complies with the provisions of R.I.G.L., chapter 45-24.

- (73) *Zoning use districts.* The basic unit in zoning, either mapped or unmapped, to which a uniform set of regulations applies, or a uniform set of regulations for a specified use.  
(Ch. 134, § 2, 12-19-94)

FIGURES FOR LOT DEFINITIONS 1's: 39-46



### Section 3. Compliance with this ordinance.

No building, structures or land located within the 1bwn of Hopkinton shall be used and no building, structure or part thereof shall be erected, constructed, reconstructed, moved or structurally altered unless in conformity with the provisions of this ordinance.

(Ch. 134, § 3, 12-19-94)

### Section 4. Division into districts.

For the purposes of this ordinance the 1bwn of Hopkinton is hereby divided into those zoning districts the location and boundaries of which are as shown and depicted on that certain map entitled: "Town of Hopkinton Zoning Map" prepared by Cherenzia & Assoc., Ltd., October 1994, Scale 1"=1200' and that set of maps entitled: "Town of Hopkinton Zoning District Maps," prepared by Cherenzia & Assoc., Ltd., October 1994, sheets 1-31, which maps are on file in the records of the town clerk of the 1bwn of Hopkinton and which are adopted and made a part of this ordinance. The boundary lines of said districts are intended and are to be interpreted to follow the boundary lines of existing lots of record and the centerline of roadways, except as is clearly depicted to the contrary.

The Residential Special, Neighborhood Business Special, Commercial Special and Manufacturing Special zoning districts are composed of parcels of property which heretofore were the subject of a zoning map boundary change or amendment to the text of the prior zoning ordinance and in connection with which the town council imposed use limitations, conditions, and/or restrictions. The terms of such limitations, conditions, and/or restrictions shall continue to be applicable to each said property and shall be deemed readopted and incorporated herein. Except as the limitations, conditions, and/or restrictions as individually applicable to the property within each said zoning district are controlling the use and dimensional regulations of this ordinance from the Rural Farming Residential - 80 district shall apply to the Residential Special district, the Neighborhood Business district shall apply to the

Neighborhood Business Special district, the Commercial district to the Commercial Special district, and the Manufacturing district to the Manufacturing Special district.  
(ch. 134, § 4, 12-19-94)

#### Section 5. District use regulations.

The following District Use Table establishes in each district those uses permitted and those uses permitted by special-use permit. All uses not so permitted in a district are prohibited therein. Any accessory use customarily incident to a use permitted in a district and located on the same lot shall be permitted; any accessory use customarily incident to a use permitted in a district by special use permit and located on the same lot shall be permitted upon the grant of the special-use permit unless limited by a special condition attached to the grant of the special-use permit. It shall be the responsibility of the zoning enforcement officer to determine which use classification a proposed use is governed by.  
(Ch. 134, § 4, 12-19-94)

District Use Table- P=Permitted, N=Prohibited, S=Special Use Permit					
Use Category	RFR- 80	RES -1	Neighborhood Business	Commercial	Manufacturing
0 Residential					
01 Single Family	P	P	P	N	N
02 Two Family	P	N	S	N	N
03 Multi Family	P	N	S	N	N
04 Bed & Breakfast	S	S	S	S	N
05 Hotels & Motels	N	N	N	P	S
06 Assisted Housing & Nursing Homes	S	S	S	S	N
07 Accessory Family Dwelling Unit	S	S	S	S	N
08 Customary Home Occupation	P	P	P	P	N
09 Community Residences	P	P	P	N	N
10 Family Day Care Homes	P	P	P	N	N
11 Halfway House	N	N	N	N	N
1 Extractive & Industrial Nonmanufacturing					
10 Agriculture, including:					
101 Field Crops	P	P	P	P	S

Use Category	RFR -80	RES -1	Neighborhood Business	Commercial	Manufacturing	CII
102 Fruit, Tree Nut & Vegetable Farms	P	P	P	P	S	
103 Livestock Farms	P	N	N	P	S	
104 General Farms	P	P	P	P	S	
105 Noncommercial Farms	P	P	P	P	S	
11 Agricultural Services, Hunting & Trapping	P	P	P	P	P	
12 Forestry						
121 Timber Tracts	P	P	P	P	P	
122 Forest Nurseries & Tree Seed Gathering & Extracting	P	S	N	P	P	
123 Forestry Services	P	P	P	P	P	
13 Fisheries						
131 Finfish	N	N	N	P	P	
132 Shellfish	N	N	N	P	P	

<i>Use Category</i>	<i>RFR - 80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Commercial</i>	<i>Manufacturing</i>	
<i>14 Mining</i>						
141 Dimension Stone	N	N	N	N	S	
142 Crushed & Broken Stone	N	N	N	N	S	
143 Commercial Soil, Sand & Gravel	N	N	N	N	S	
<i>15 Metals and Minerals Wholesalers</i>						
151 Coal & other minerals	N	N	N	S	S	t
152 Petroleum Bulk Stations	N	N	N	N	S	z z H
<i>16 Construction &amp; General Contractors</i>						
160 General Contracting - Office & Equipment Storage	N	N	N	S	p	
161 Heavy Construction, inc. excavation equipment	N	N	N	S	p	
162 Plumbing, Heating & NC	N	N	N	S	p	
163 Painting, Paper Hanging & Decorating	N	N	N	S	p	at

Use Category	RFR- 80	RES-1	Neighborhood Business	Commercial	Manufacturing	Other
164 Electrical Work	N	N	N	S	P	
165 Masonry & Stonework	N	N	N	S	P	
166 Carpentering & Wood Floor- work	N	N	N	S	P	
167 Roofing & Sheet Metal Work	N	N	N	S	P	
168 Concrete Work	N	N	N	S	P	
169 Water Well Drilling	N	N	N	S	P	
1691 Office for above uses #'s 160-169, not including stor- age & supplies	N	N	S	P	P	Z n O
<i>17 Misc. Special Trade Contractors</i>						
17i Structural Steel Erection	N	N	N	N	S	
172 Ornamental Metal Work	N	N	N	N	S	
173 Glass Glazing Work	N	N	N	N	S	
174 Excavating & Foundation Work	N	N	N	N	S	
175 Wrecking & Demolition Work	N	N	N	N	S	

Use Category	RFR • 80	RES-1	Neighborhood Business	Commercial	Manufacturing
<i>18 Junkyards</i>					
181 Junkyards & scrap wholesaling	N	N	N	N	S
182 Recycling Facility, Storage Only	N	N	N	N	S
<i>2 Manufacturing</i>					
<i>20 Food and Kindred Products</i>					
201 Meat Products	N	N	N	N	S
202 Dairy Products	N	N	N	N	S
203 Canning & Preserving Foods	N	N	N	N	S
204 Grain Mill Products	N	N	N	N	S
205 Bakery Products	N	N	N	N	S
206 Sugar	N	N	N	N	S
207 Confectionery & Related Products	N	N	N	N	S
208 Beverage Industries	N	N	N	N	S
209 Rendering & Refining of Fats & Oils	N	N	N	N	N

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Commercial</i>	<i>Manufacturing</i>	
<i>22 Thxtile Mill Products</i>						
221 Mill Products	N	N	N	N	p	
222 Drying & Finishing Textiles	N	N	N	N	p	
223 Floor Covering Mills	N	N	N	N	p	
224 Yam & Thread Mills	N	N	N	N	p	
<i>23 Apparel &amp; Other Finished Products from Fabric</i>	N	N	N	N	p	
<i>24 Lumber &amp; Wood Products Except Furniture</i>						
241 Sawmills & Planing Mills	N	N	N	N	p	
242 Millwork & Prefabricated Structural Wood Products	N	N	N	N	p	
243 Wooden Containers	N	N	N	N	p	
<i>25 Furniture &amp; Furnishing Manufacturing</i>	N	N	N	N	p	

<i>Use Category</i>	<i>RFR - 80</i>	<i>RES -1</i>	<i>Neighbor- hood Business</i>	<i>Commer- cial</i>	<i>Manufac- turing</i>	
<i>26 Paperboard &amp; Paper Manufac- turing</i>	N	N	N	N	P	
261 Paper Manufacturing (not in- cluding pulp mills)	N	N	N	N	P	
262 Manufactured Products from Paper & Paperboard	N	N	N	N	P	
..... cii 27 Printing & Publishing	N	N	N	S	P	bx t
28 Chemicals & Pharmaceuticals	N	N	N	N	S	z z
29 Petroleum Refining & Related Industries	N	N	N	N	N	
<i>3 Manufacturing</i>						
<i>30 Rubber &amp; Miscellaneous Plas- tics</i>						
301 Tires & Tubing	N	N	N	N	N	
302 Rubber Footwear	N	N	N	N	S	' til

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES-1</i>	<i>Neighbor- hood Business</i>	<i>Commer- cial</i>	<i>Manufac- turing</i>	<i>1 c.n</i>
303 Reclaimed Rubber .	N	N	N	N	S	
304 Fabricated Rubber Products not elsewhere classified	N	N	N	N	N	
305 Miscellaneous Plastics Prod- ucts	N	N	N	N	S	§
<i>31 Leather &amp; Leather Products</i>						
311 Leather Tanning & Finishing	N	N	N	N	N	
312 Industrial Leather Belts & Packing	N	N	N	S	P	Z
313 Boot & Shoe Cut Stock	N	N	N	S	P	8
314 Footwear, except Rubber	N	N	N	S	P	t:l 175
315 Gloves & Mittens	N	N	N	S	P	
316 Luggage	N	N	N	S	P	
317 Handbags & Other Personal Leather Goods	N	N	N	S	P	
<i>32 Stone, Clay &amp; Glass Products</i>						
321 Flat Glass	N	N	N	N	N	

<i>Use Category</i>		<i>RFR - 80</i>	<i>RES -1</i>	<i>Neighbor- hood Business</i>	<i>Commer- cial</i>	<i>Manufac- turing</i>	
322	Glass & Glassware, Pressed or Blown	N	N	S	S	P	
323	Glass Products Made of Purchased Glass	N	N	P	S	P	
324	Cement, Hydraulic	N	N	N	N	N	
325	Structural Clay Products	N	N	N	N	S	til
1- 1-	326 Pottery & Related Products	N	N	S	S	S	
1-	327 Concrete, Gypsum & Plaster	N	N	N	N	N	>
	3272 Concrete Products, including Block & Brick	N	N	N	N	S	Q Z
	3273 Ready-Mix Concrete	N	N	N	N	S	
	3274 Lime	N	N	N	N	N	
	3275 Gypsum Products (Plaster)	N	N	N	N	N	
	328 Cut Stone & Stone Products	N	N	N	S	P	
	329 Abrasive, Asbestos & Misc. Nonmetallic Mineral	N	N	N	N	N	
	33 Primary Metals Industries	N	N	N	N	N	

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Commercial</i>	<i>Manufacturing</i>	<i>en</i>
34 <i>Fabricated Metal Products, except Ordnance, Machinery &amp; Transportation Equipment</i>						
341 Fabricated Metal Products, except Ordnance, Machinery & Transportation Equipment	N	N	N	S	p	8
342 Coating & Engraving	N	N	N	N	S	
35 <i>Machinery, except Electrical</i>	N	N	N	N	S	
36 <i>Electrical &amp; Electric Machinery, Equipment &amp; Supplies Except Batteries</i>						
361 Electrical & Electric Machinery, Equipment & Supplies Except Batteries	N	N	N	N	S	
362 Electrical Batteries	N	N	N	N	N	
37 <i>Transportation Equipment</i>	N	N	N	N	S	

<i>Use Category</i>	<i>RFR - 80</i>	<i>RES -1</i>	<i>Neighbor- hood Business</i>	<i>Commer- cial</i>	<i>Manufac- turing</i>
<i>38 Professional, Scientific, and Controlling Instruments; Pho- to &amp; Optical Goods, Watches &amp; Clocks</i>	N	N	N	N	P
<i>39 Misc.Manufacturing Industries</i>					
391 Jewelry & Silverware	N	N	S	S	P
392 Metal Plating	N	N	N	N	N
393 'lbys & Amusement, Sporting & Athletic Goods & Musical Instruments	N	N	S	S	P
394 Pens,Pencils & Office and Art- ists' Materials	N	N	N	N	P
395 Costume Jewelry, Costume Novelties, Buttons & Misc. Notions, except Precious Met- als	N	N	S	S	P
<i>396 Misc. Manufacturing</i>					
3961 Matches	N	N	N	N	N

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<i>Use Category</i>	<i>RFR - 80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Cammer- cial</i>	<i>Manufac- turing</i>	<div>■ C/I</div>
3962 Lamp Shades	N	N	S	S	P	ID
3963 Mortician's Goods	N	N	N	N	P	
3964 Furs, Dressed & Dyed	N	N	N	N	S	
3965 Signs & Advertising Displays	N	N	S	S	P	
3966 Umbrellas, Parasols & Canes	N	N	S	S	P	
.... 399 Ordnance & Accessories	N	N	N	N	N	
<i>4 Transportation, Communications &amp; Utilities</i>						<div>Z CO</div>
40 Railroad Transportation	N	N	N	S	S	
41 Local & Suburban Transit and Passenger Transportation and Related Service Facilities						
411 Local & Suburban	N	N	N	P	P	
412 Taxicabs	N	N	N	P	P	
413 Passenger Transit Charter Services	N	N	N	P	P	
4141 School Bus (storage)	P	P	P	P	P	

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Commercial</i>	<i>Manufacturing</i>	
4142 School Buses (storage)	N	N	N	p	p	
415 Terminal & Services Facilities for Motor Vehicle Passenger Transit	N	N	N	p	p	
42 <i>Trucking Transportation &amp; Short Term Truck Storage</i>						
421 Local & Long Distance Trucking, without storage	N	N	N	S	p	×
422 Local & Long Distance Trucking, with storage	N	N	N	N	p	Z O
45 <i>Air Transportation</i>	N	N	N	N	S	
46 <i>Warehousing, Public &amp; Private</i>						
461 Farm Product Warehousing	N	N	N	p	p	
462 Refrigerated Warehousing	N	N	N	S	p	
463 Food lockers, with & without Food Preparation Facilities	N	N	N	S	p	Q <sub>t</sub>

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<i>Use Category</i>		<i>RFR -80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Cammer- cial</i>	<i>Manufac- turing</i>	
464	Household Goods Warehousing	N	N	N	S	P	
465	General Warehousing	N	N	N	S	P	
<i>Sanitary Services</i>							
481	Communication, including						
482	Fuel & Power (for use or sale off-site)	N	N	N	N	N	
483	Water Supply	P	p	p	p	p	
484	Sanitary Sewerage Disposal						
485	Refuse Disposal, Landfills & Incineration	N	N	N	N	N	
49	Customs'Brokers & Freight Forwarders	N	N	S	S	S	

Use Category	RFR - 80	RES -1	Neighborhood Business	Commercial	Manufacturing	
5 Commercial						
50 Wholesale						
501 Motor Vehicles & Auto Equipment	N	N	N	S	P	
502 Drugs, Chemicals & Allied Products	N	N	N	P	P	!:"
503 Dry Goods & Apparel	N	N	N	P	P	<
504 Groceries & Related Products	N	N	N	P	P	!
505 Farm Products - Raw Materials	N	N	N	S	S	9Z...
506 Electrical Goods/Electronics	N	N	N	P	P	
507 Hardware, Plumbing & Heating, A/C & Refrigeration Equipment & Supplies	N	N	N	S	S	
508 Machinery, Equipment & Supplies	N	N	N	P	P	
509 Tobacco & Tobacco Products	N	N	N	S	S	
				P	P	to CII

<i>Use Category</i>	<i>RFR -80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Commercial</i>	<i>Manufacturing</i>	<i>en</i>
510 Beer, Wine & Distilled Alcoholic Beverages	N	N	N	p	p	
511 Paper & Paper Products	N	N	N	S	S	
512 Furniture & Home Furnishings	N	N	N	p	p	
513 Lumber & Construction Materials	N	N	N	S	S	
52 Retail Trade • Building Materials, Hardware & Farm Equipment						
521 Lumber & Other Building Materials	N	N	N	p	S	
522 Heating & Plumbing Materials	N	N	N	p	S	
523 Paint, Glass & Wallpaper Stores	N	N	N	p	S	
524 Electrical/Electric Supply Stores	N	N	N	p	S	
525 Hardware & Farm Equipment	N	N	N	p	S	

<i>Use Category</i>	<i>RFR -80</i>	<i>RES-1</i>	<i>Neighborhood Business</i>	<i>Commercial</i>	<i>Manufacturing</i>	
<b>53 Retail Trade - General Merchandise</b>						
531 Department Stores	N	N	N	p	S	
532 Mail Order Houses	N	N	N	p	S	
533 Limited Price Variety Stores	N	N	N	p	S	
534 Merchandise Vending & Machine Operators	N	N	N	p	S	
535 Direct Selling Organizations	N	N	N	p	S	>
536 Dry Goods & General Merchandise	N	N	S	p	S	ON
537 General Stores	N	N	S	p	S	CI
538 Outlet/Mall Plaza	N	N	N	p	S	
<b>54 Retail Trade • Food</b>						
541 Grocery Stores & Deli	N	N	p	p	S	
542 Meat & Fish Markets	N	N	p	p	S	
543 Fruit & Vegetable Stores	N	N	p	p	S	
544 Candy, Nut & Confectionery Stores	N	N	p	p	S	■
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<i>Use Category</i>		<i>RFR -80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Cammer- cial</i>	<i>Manufac- turing</i>
545 Dairy Products Stores		N	N	p	p	S
546 Retail Bakeries, Manufactur- ing		N	N	S	p	S
547 Retail Bakeries, Non-Manu- facturing		N	N	p	p	S
548 Egg & Poultry Store		N	N	p	p	S
.... (1) 55 Automotive Dealers & Gas Ser- vice Stations						S
551 Motor Vehicle Dealers, New & Used		N	N	N	p	S
552 Motor Vehicle, Used Only		N	N	N	p	S
553 Tire, Battery & Accessory Dealers		N	N	N	p	S
554 Gasoline Service Stations		N	N	N	p	S
555 Mobile Home Dealers, New & Used		N	N	N	p	S
556 Aircraft Dealer, New & Used & Service		N	N	N	p	S

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES -1</i>	<i>Neighbor- hood Business</i>	<i>Commer- cial</i>	<i>Manufac- turing</i>
557 Marine Dealer, New & Used & Service	N	N	<b>N</b>	p	S
56 Retail Trade -Apparel & Acces- sories	<b>N</b>	<b>N</b>	<b>N</b>	p	S
57 Retail Trade - Furniture, Home Furnishings & Equipment					
571 Furniture, Home Furnishings & Equipment Stores	N	<b>N</b>	S	p	<b>S</b>
572 Household Appliance Stores	N	N	S	p	S
573 Radio, Television & Music Stores	N	N	S	p	S
58 Retail Trade - Eating & Drink- ing Places					
581 Eating Places	N	N	S	p	S
582 Drinking Places (Alcoholic Beverages)	N	<b>N</b>	N	p	<b>S</b>
583 Combo Bars & Restaurants	N	N	N	p	S

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Commercial</i>	<i>Manufacturing</i>	
<i>59 Retail Trade-Miscellaneous Retail Stores</i>						
591 Drug Stores	N	N	P	P	S	
592 Liquor Stores	N	N	P	P	S	
5931 Antique Store	N	N	P	P	S	Q
5932 Secondhand Clothing & Shoe	N	N	P	P	S	
5933 Secondhand Furniture	N	N	P	P	S	
5934 Secondhand Books	N	N	P	P	S	Z
594 Bookstores & Stationary Stores	N	N	P	P	S	OC
595 Sporting Goods & Bicycle Shops	N	N	P	P	S	
596 Farm & Garden Supply Stores	N	N	P	P	S	
597 Jewelry Stores	N	N	P	P	S	
598 Fuel & Ice Dealers	N	N	P	P	S	
5991 Florists	N	N	P	P	S	
5992 Tobacco Stores	N	N	P	P	S	
5993 News Dealers & News Stands	N	N	P	P	S	

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Commercial</i>	<i>Manufacturing</i>	
5994 Camera & Photo Supply Stores	N	N	p	p	S	
5995 Gift, Novelty & Souvenir Shops	N	N	p	p	S	
5996 Optical Goods Stores	N	N	p	p	S	
<i>6 Personal, Business &amp; Professional Services</i>						
60 Finance, Insurance & Real Estate						×
601 Credit Agencies & Other Than Banks	N	N	N	p	S	>
602 Security & Commodity Brokers, Dealers, Exchanges & Services	N	N	N	p	S	Z
603 Insurance Carriers	N	N	N	p	S	
604 Insurance Agents	N	N	N	p	S	
605 Real Estate	N	N	N	p	S	
606 Combo; Real Estate, Insurance, Loan & Law Offices	N	N	N	p	S	10t tn

Use Category		RFR- 80	RES-1	Neighborhood Business	Commercial	Manufacturing
607	Loan & Law Offices Holding & Other Investment Co.s	N	N	N	p	S
608	Banking	N	N	N	p	S
Personal Services						
611	Laundries, Laundry Services & Cleaning & Dyeing Plants	N	N	N	S	S
612	Photo Studios, including Commercial	N	N	N	p	S
613	Beauty Shops	N	N	S	p	S
614	Barber Shops	N	N	S	p	S
615	Shoe Repair, Shoe Shine & Hat Cleaning Shops	N	N	S	p	S
616	Funeral Services	S	S	S	p	S
617	Crematories	N	N	N	p	S
618	Pressing, Alteration & Garment Repair	N	N	S	p	S

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES -1</i>	<i>Neighbor- hood Business</i>	<i>Commer- cial</i>	<i>Manufac- turing</i>	
<i>62 Miscellaneous Business Services</i>						
621 Advertising	N	N	N	p	S	
622 Consumer Credit, Mercantile Reporting & Adjustment & Collection Agencies	N	N	N	p	S	
623 Duplicating, Blueprinting, Photocopying, Mailing & Steno Services	N	N	N	p	S	33 x v
624 Services to Dwellings & Other Bldg.	N	N	N	p	S	2
625 News Syndicates	N	N	N	p	S	
626 Private Employment Agencies	N	N	N	p	S	
627 Research, Development & Testing Labs	N	N	N	p	S	
628 Business & Mgt. Consulting	N	N	N	p	S	
629 Travel Agencies & Bureaus	N	N	S	p	p	
<i>63 Automotive Repair &amp; Services</i>						
631 Automobile Rentals	N	N	N	p	S	oOt til

<i>Use Category</i>	<i>RFR -80</i>	<i>RES -1</i>	<i>Neighbor- hood Business</i>	<i>Cammer- cial</i>	<i>Manufac- turing</i>	<i>el</i>
632 Automobile Parking	<b>N</b>	<b>N</b>	N	p	<b>S</b>	
633 Automobile Repair Shops	N	N	N	p	<b>S</b>	
634 Automobile Services, except .Repair	N	N	N	p	<b>S</b>	
635 Trailer Rentals	N	N	N	p	<b>S</b>	
<i>64 Miscellaneous Repair Services</i>						
641 Electrical/Electronic Repair Shop	N	N	S	p	<b>S</b>	<b>Z</b>
642 Watch, Clock & Jewelry Re- pair	N	N	S	p	<b>S</b>	<b>O</b>
643 Reupholstery & Furniture Re- pair	N	<b>N</b>	S	p	<b>S</b>	
644 Bicycle Repair	<b>N</b>	N	S	p	<b>S</b>	
645 Leather Goods Repair	<b>N</b>	N	S	p	<b>S</b>	
646 Locksmith & Gunsmith Shops	N	<b>N</b>	S	p	<b>S</b>	
647 Musical Instruments Repair	N	N	S	p	<b>S</b>	
648 Repair & Related Services Not Elsewhere Classified	N	N	S	p	<b>S</b>	

<i>Use Category</i>	<i>RFR - 80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Cammer- cial</i>	<i>Manufac- turing</i>	
<i>65 Indoor Commercial Amusement Services</i>						
651 Dance Halls, Studios & Schools	N	N	N	p	S	
652 Theatrical Producers, Bands, Orchestras & Entertainers	N	N	N	p	S	
653 Bowling Alleys, Billiards & Pool	N	N	N	p	S	R
654 Motion Picture Production Services & Theaters	N	N	N	p	S	■
655 Gambling Facilities, includ- ing but not limited to: Casino, Bingo Hall, Hai Jai [JaiAlai], etc.	N	N	N	N	N	Z Z O

Use Category	RFR- 80	RES -I	Neighborhood Business	Commercial	Manufacturing
67 Medical, Health & Legal Services	N	N	S	P	S
Other Professional Services					
681 Engineering & Architectural Services	N	N	S	P	S
682 Nonprofit Educational & Scientific Research Agencies	N	N	S	P	S
683 Accounting, Auditing and Bookkeeping Services	N	N	S	P	S
7 Public and Quasi-Public Services					
70 Postal Services	S	S	S	P	P
71 Military,Services	S	S	S	P	P
72 Other Federal Government	S	S	S	P	P
73 State & Local Government	S	S	S	P	P

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES-1</i>	<i>Neighbor- hood Business</i>	<i>Commer- cial</i>	<i>Manufac- turing</i>	
74 <i>Public Schools</i>	S	S	S	p	p	
75 <i>Private Schools</i>						
751 Private Colleges & Universi- ties	S	S	N	N	N	E
752 Private Junior Colleges	S	S	N	N	N	
753 Private High Schools	S	S	N	N	N	x
754 Private Junior High Schools	S	S	N	N	N	v
755 Private Elementary Schools	S	S	N	N	N	
756 Private Nursery Schools	S	S	N	N	N	
757 Private Correspondence & Vo- cational Schools	S	S	N	N	N	z O
76 <i>Museums, Art Galleries, Arbo- reta, Libraries, Churches &amp; Cemeteries</i>	S	S	S	N	N	
77 <i>Hospitals, Sanatoria, Convales- cent &amp; Rest Homes</i>						... CI

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Use Category	RFR- 80	RES -1	Neighborhood Business	Cammer- cial	Manufac- turing	001 C.B
771 General Hospitals	S	N	N	S	S	S
772 Mental Institutions	S	N	N	N	N	
773 Special Hospitals	S	N	N	N	N	
774 Sanatoria, Convalescent & Rest Homes	S	N	N	N	N	
78 Nonprofit Membership Organi- zations	p	p	p	p	N	S
8 Recreation						
80 Outdoor Government Public Recreation						
801 Playgrounds, Playfields & 'lbt Lots	p	p	p	p	N	Z
802 Major Parks (>5 Acres)	p	p	p	p	N	
803 Minor Parks (<5 Acres)	p	p	p	p	N	
804 Stadia & Fairgrounds	p	p	p	p	N	
805 Campgrounds	p	p	p	p	N	
806 Golf Courses	p	p	p	p	N	12.1

<i>Use Category</i>	<i>RFR • 80</i>	<i>RES -1</i>	<i>Neighborhood Business</i>	<i>Commercial</i>	<i>Manufacturing</i>	
807 Ski & 'Ibboggan Runs	P	P	P	P	N	
808 Skating Rinks	P	P	P	P	N	
811 Boating Areas	P	P	P	P	N	
812 Bathing Beaches	P	P	P	P	N	
813 Fishing Sites	P	P	P	P	N	
814 Swimming Pools, outdoor	P	P	P	P	N	1:lj
82 <i>Indoor Government Public Recreation</i>						\$< t
821Swimming Pools	P	P	P	P	N	Z
822Arenas	P	P	P	P	N	Z
823 Skating Rinks	P	P	P	P	N	O
824 Community Centers	P	P	P	P	N	
83 <i>Outdoor Private Land Recreation</i>						
831 Stadia	N	N	N	P	P	
832 Race Tracks	N	N	N	N	N	
883 Camps & Campgrounds	S	N	N	P	N	
834 Riding Academies	P	S	P	P	N	en

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES -1</i>	<i>Neighbor- hood Business</i>	<i>Commer- cial</i>	<i>Manufac- turing</i>	<i>1 111</i>
835 Skating Rinks	N	N	N	p	N	
836 Ski & 'Ibboggan Runs	N	N	N	p	N	
837 Gun Clubs	S	N	N	N	N	
838 Golf Courses	S	S	N	N	N	
839 Amusement Theme Park	N	N	N	S	S	
<i>84 Outdoor Water-Based Private Recreation</i>						<i>1 111</i>
841 Boating Areas	S	S	N	S	N	<i>1 111</i>
842 Bathing Beaches	S	S	N	S	N	<i>1 111</i>
843 Fishing Sites	p	p	p	S	N	<i>1 111</i>
844 Swimming Pools, Outdoor	S	S	N	S	N	<i>1 111</i>
<i>85 Indoor Private Recreation</i>						
851 Swimming Pools	S	S	N	p	p	
852 Arenas	N	N	N	p	p	
853 Skating Rinks	N	N	N	p	p	
854 Gun Clubs	S	N	N	S	S	

<i>Use Category</i>	<i>RFR- 80</i>	<i>RES -1</i>	<i>Neighbor- hood Business</i>	<i>Cammer- cial</i>	<i>Manufac- turing</i>	
<i>87 Private Nonprofit Recreation</i>						
871 Subdivision Parks	S	S	S	S	S	
872 Subdivision Community Cen- ters	S	S	S	S	S	
873 Camps	S	S	S	S	N	
874 Golf Courses	S	S	S	S	N	ta:l
875 Gun Clubs	S	S	N	S	N	×
..... Ch. 134, § 5, 12-19-94)						t
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## Section 6. Dimensional regulations.

Requirement	Zoning Districts <sup>6</sup>				
	R-1	RFR-80	Neighborhood Business	Commercial <sup>1</sup>	Manufacturing
Lot Frontage Minimum	100'	225'	150'	150'	225'
Front Yard <sup>2</sup> Setback Minimum	25'	60'	40'	60'	75'
Side Yard <sup>2</sup> Setback minimum	15'	40'	25'	25'	50'
Rear Yard <sup>2</sup> Setback Minimum	30'	50'	30'	50'	75'
Height - Main Structure Maximum	35'	40'	40'	40'	40'
Height - Accessory Structure Maximum	25'	25'	25'	25'	25'
Lot Area <sup>8</sup> (1,000's Sq. Ft.) Minimum	2Q3	80	40	60	80
% Coverage <sup>9</sup> Maximum	30	15	90	75	75

1. No commercial or manufacturing structure shall be located closer than one hundred (100) feet to a residential zone district boundary line.
2. The front yard setback area of Commercial or Manufacturing districts shall be maintained in a vegetated condition; where Commercial or Manufacturing property abuts a residential zone district boundary, the side and rear yard setback area abutting said residential boundary shall also be maintained in a vegetated condition.
3. The subdivision of any land within the R-1 zoning district after the adoption of this ordinance shall also require a minimum density of at least sixty thousand (60,000) square feet per building lot.
4. The maximum percent of the lot area which may be covered by buildings and impervious surfaces.
5. The dimensional regulations of the RFR 80 district shall apply to the Residential Special district (RS), the Neighborhood Business district shall apply to the Neighborhood Business Special district (NBS), the Commercial district to the Commercial Special district (CS), and the Manufacturing district to the Manufacturing Special district (MS).
6. For two-family and multifamily dwellings, the minimum lot size shall be determined by multiplying the number of units by eighty thousand (80,000) square feet.

(Ch. 134, § 6, 12-19-94)

**Section 7. Substandard lots of record.**

(A) *Merger.* Where contiguous unimproved or improved and unimproved lots of record are in the same ownership and do not conform with the dimensional and/or quantitative and/or road frontage or other access requirements for the district in which they are located on the effective date of the adoption or subsequent amendment of this zoning ordinance, such lots shall merge to the extent necessary to create dimensionally conforming lots or to reduce to the maximum possible extent the nonconformity with the dimensional standards of the district in which they are located. Provided, however, that any lot which was created as a building lot by formal subdivision application and approval pursuant to the subdivision ordinance and/or regulations of the town, prior to the passage of this ordinance, shall remain a separate independent building lot and shall not so merge.

(B) *Substandard building lots.* Notwithstanding the failure of the categories of lot(s) listed below to meet the requirements applicable in the district in which it is located as set forth in this ordinance, it shall be considered a buildable lot of record for purposes of this ordinance:

- (1) Any single substandard lot of record where the contiguous lots are not in the same ownership,
- (2) Such contiguous lots of record which merge as a result of the foregoing at the effective date of the adoption or amendment of this zoning ordinance, and
- (3) Any building lot heretofore created as part of a subdivision approved pursuant to the subdivision ordinances and/or regulations of the town shall be considered a buildable lot of record for purposes of this ordinance.

Provided, however, that nothing herein shall be deemed to detract from the requirement that in order to use said lot or merged lots as a building site the site must satisfy all other applicable state, local and federal environmental regulations.

(Ch. 134, § 7, 12-19-94)

**Section 8. Nonconforming development.**

(A) *Continued existence.* Any use, activity, structure, building, sign, or other improvement lawfully existing at the time of the

adoption or subsequent amendment of this zoning ordinance but which is nonconforming by use or nonconforming by dimension under the terms of this ordinance or subsequent amendment hereto shall be permitted to continue. This shall not exempt the nonconforming development from the regulations of this or other town ordinances, state statutes or common-law requirements requiring that property be used so as not to create a nuisance.

(B) *Use alteration.* The use of a nonconforming development may be altered by application to the zoning board of review for a special-use permit.

(C) *Addition, enlargement, expansion, replacement or intensification.* The addition, enlargement, expansion, replacement or intensification of a nonconforming development shall be allowed only by special-use permit.

(D) *Special-use permit standards.* In addition to satisfying the standards regulating the issuance of special-use permits hereinafter set forth in order to obtain a special-use permit for a use alteration, addition, enlargement, expansion, replacement or intensification of a nonconforming development, the applicant shall further demonstrate to the satisfaction of the zoning board of review by legally competent evidence that the proposed use more closely adheres to the intent and purposes of the zoning ordinance than the present nonconforming development.

(E) *Abandonment.* If a nonconforming use is abandoned, it may not be reestablished. Abandonment of a nonconforming use shall consist of some overt act, or failure to act, which would lead one to believe that the owner of the nonconforming use neither claims nor retains any interest in continuing the nonconforming use unless the owner can demonstrate an intent not to abandon the use. An involuntary interruption of nonconforming use, such as by fire and natural catastrophe, does not establish the intent to abandon the nonconforming use. However, if any nonconforming use is halted for a period of one (1) year, the owner of the nonconforming use will be presumed to have abandoned the nonconforming use, unless that presumption is rebutted by the presentation of sufficient evidence of intent not to abandon the use.

(F) *Maintenance or repair.* Nothing in this ordinance shall prevent or be construed to prevent in a nonconforming development the performance of normal maintenance or repair work necessary to comply with state and/or local building, safety and/or health statutes, ordinances or regulations.

(G) *Limitation.* A use established by variance or special-use permit shall not acquire the rights of this section.  
(Ch. 134, § 8, 12-19-94)

### Section 9. Variances.

(A) *Application.* An application for relief from the literal requirements of a zoning ordinance because of hardship may be made by any person, group, agency or corporation with a legal interest in the land to which it applies by filing in the office of the zoning enforcement officer an application describing the request. The form and such data and/or evidence which comprise such an application is set forth in appendix A hereof if the request is for a use variance, and appendix B if the request is for a dimensional variance. Said forms and the data and/or evidence required thereby are incorporated herein and made a part of this ordinance.

Upon receipt of an application wherein the applicant seeks a waiver from the requirement of furnishing any item of data and/or evidence as required by the applicable appendix, the zoning enforcement officer shall immediately transmit said application and waiver request to the zoning board, which shall hear and decide the waiver request at a regularly scheduled or special meeting of the zoning board. In the event the zoning board grants such a waiver request, the application, being otherwise in conformity with the applicable appendix, shall be deemed complete. In the event the zoning board does not grant the waiver request in full, the application shall not be deemed complete until all data and/or evidence required by the applicable appendix for which a waiver has not been granted, is filed in the office of the zoning enforcement officer.

Upon receipt of the complete application, the zoning enforcement officer shall immediately transmit it to the zoning board and shall transmit a copy to the planning board.

(B) *Planning board recommendations.* The zoning board, at its next meeting after receipt of a complete application for a variance may request that the planning board and/or town planner report its findings and recommendations, including a statement on the general consistency of the application, with the goals and purposes of the Comprehensive Plan of the town of Hopkinton, in writing to it within thirty (30) days of receipt from it.

(C) *Notice and hearing.* The zoning board shall hold a public hearing on any application for variance in an expeditious manner after receipt in proper form of a complete application, and shall give public notice thereof of at least fourteen (14) days prior to the date of the hearing in a newspaper of general circulation in the town. Notice of hearing shall be sent by certified mail, return receipt requested, to the applicant and to all those owners of real property or other entities which would require notice under R.I.G.L., chapter 42-24-53 at least fourteen (14) days prior to the date of the hearing. Said notice shall include the street address of the property for which the variance is sought. The cost of notification shall be borne by the applicant.

(D) In granting a variance, the zoning board shall require that evidence satisfying the following standards be entered into the record of the proceedings:

- (1) That the hardship from which the applicant seeks relief is due to the unique characteristics of the subject land or structure and not to the general characteristics of the surrounding area; and is not due to a physical or economic disability of the applicant;
- (2) That the hardship is not the result of any prior action of the applicant and does not result primarily from the desire of the applicant to realize greater financial gain;
- (3) That the granting of the requested variance will not alter the general character of the surrounding area or impair the intent or purpose of the zoning ordinance or the comprehensive plan upon which this ordinance is based; and
- (4) That the relief to be granted is the least relief necessary.

(E) The zoning board shall, in addition to the above standards, require that evidence be entered into the record of the proceedings showing that:

- (1) In granting a use variance the subject land or structure cannot yield any beneficial use if it is required to conform to the provisions of the zoning ordinance. Nonconforming use of neighboring land or structures in the same district and permitted use of lands or structures in an adjacent district shall not be considered in granting a use variance; and
  - (2) In granting a dimensional variance, that the hardship that will be suffered by the owner of the subject property if the dimensional variance is not granted shall amount to more than a mere inconvenience, which shall mean that there is no other reasonable alternative to enjoy a legally permitted beneficial use of one's property. The fact that a use may be more profitable or that a structure may be more valuable after the relief is granted shall not be grounds for relief.
- (Ch. 134, § 10, 12-19-94)

#### Section 10. Special-use permits.

(A) *Application.* An application for a special-use permit may be made by any person, group, agency or corporation with a legal interest in the land to which it applies by filing in the office of the zoning enforcement officer an application describing the request.

The form and such data and/or evidence which comprise such an application is set forth in appendix C hereof. Said form and the data and/or evidence required thereby are incorporated herein and made a part of this ordinance.

Upon receipt of an application wherein the applicant seeks a waiver from the requirement of furnishing any item of data and/or evidence as required by said appendix, the zoning enforcement officer shall immediately transmit said application and waiver request to the zoning board, which shall hear and decide the waiver request at a regularly scheduled or special meeting of the zoning board. In the event the zoning board grants such a waiver request, the application, being otherwise in conformity with said appendix, shall be deemed complete. In the event the zoning board

does not grant the waiver request in full, the application shall not be deemed complete until all data and/or evidence required by said Appendix for which a waiver has not been granted, is filed in the office of the zoning enforcement officer.

Upon receipt of the complete application, the zoning enforcement officer shall immediately transmit it to the zoning board and shall transmit a copy to the planning board.

(B) *Planning board recommendations.* The zoning board, at its next meeting after receipt of a complete application for a special-use permit may require that the planning board and/or town planner report its findings and recommendations, including a statement on the general consistency of the application, with the goals and purposes of the comprehensive plan of the town, writing to it within thirty (30) days of receipt from it.

(C) *Notice and hearing.* The zoning board shall hold a public hearing on any application for a special-use permit in an expeditious manner after receipt in proper form of a complete application, and shall give public notice thereof of at least fourteen (14) days prior to the date of the hearing in a newspaper of general circulation in the town. Notice of hearing shall be sent by certified mail, return receipt requested, to the applicant and to all those owners of real property or other entities which would require notice under R.I.G.L., chapter 42-24-53, at least fourteen (14) days prior to the date of the hearing. Said notice shall include the street address of the property for which the special-use permit is sought. The cost of notification shall be borne by the applicant.

(D) In granting a special-use permit, the zoning board shall be satisfied by legally competent evidence that the proposed uses and/or structure:

- (1) Will be compatible with the neighboring uses and will not adversely affect the surrounding neighbors' use and enjoyment of their property;
- (2) Will be environmentally compatible with neighboring properties and the protection of property values;
- (3) Will be compatible with the orderly growth and development of the town, and will not be environmentally detrimental therewith;

- (4) That all best practices and procedures to minimize the possibility of any adverse effects on neighboring property, the town, and the environment have been considered and will be employed, including but not limited to considerations of soil erosion, water supply protection, septic disposal, wetland protection, traffic limitation, safety and circulation; and
- (5) That the purposes of this ordinance, and as set forth in the comprehensive plan, shall be served by said special use permit.

(Ch. 134, § 10, 12-19-94)

#### Section 11.8p00ial conditions.

In granting a variance or in making any determination upon which it is required to pass after a public hearing under the provisions of this ordinance, the zoning board may apply such special conditions that may, in its opinion, be required to meet the intent and purposes of the Comprehensive Plan of the Town of Hopkinton and this ordinance. Failure to abide by any special conditions attached to a grant shall constitute a zoning violation. Those special conditions shall be based on competent credible evidence on the record, be incorporated into the decision, and may include, but are not limited to, provisions for:

- (1) Minimizing adverse impact of the development upon other land, including the type, intensity, design, and performance of activities;
- (2) Controlling the sequence of development, including when it must be commenced and completed;
- (3) Controlling the duration of use of development and the time within which any temporary structure must be removed;
- (4) Assuring satisfactory installation and maintenance of required public improvements;
- (5) Designating the exact location and nature of development; and
- (6) Establishing detailed records by submission of drawings, maps, plats or specifications.

(Ch. 134, § 12, 12-19-94)

## Section 12. Substantially complete applications/creation of vested rights.

Applications for development that are substantially complete and have been submitted for approval to the appropriate agency in the town prior to the enactment of this ordinance or any amendment hereto shall be reviewed according to the regulations applicable in the zoning ordinance in force at the time the application was submitted.

For a development application to be deemed substantially complete for purposes of this section, it shall have been submitted with all required data and/or evidence required by the applicable ordinance provisions or regulations or have been granted a waiver from furnishing said data and/or evidence by the official, agency or board with authority to do so.

If an application falling within this section is approved, development must begin within six (6) months of said approval and be substantially completed within twelve (12) months after the commencement of such development.

(Ch. 134, § 12, 12-19-94)

## Section 13. Modification or adjustment.

(A) The zoning enforcement officer is authorized to grant modifications or adjustments from certain of the literal dimensional requirements of this ordinance in the instance of the construction, alteration or structural modification of a structure or lot of record to the extent and subject to the standards hereinafter set forth. No such modification or adjustment shall permit the moving of a lot line or lines.

(B) An application for a modification or adjustment from the literal dimensional requirements may be made by any person, group, agency or corporation with a legal interest in the land to which it applies by filing an application describing the request with the zoning enforcement officer. The form and such data and/or evidence which comprise such an application is set forth in appendix D.

(C) Within ten (10) days of receipt of a complete application for a modification, the zoning enforcement officer shall make a decision as to the suitability of the requested modification based on the following determinations:

- (1) The modification requested is reasonably necessary for the full enjoyment of the permitted use;
- (2) If the modification is granted, neighboring property will neither be substantially injured nor its appropriate use substantially impaired;
- (3) The modification requested is in harmony with the purposes and intent of the comprehensive plan and zoning ordinance; and
- (4) The modification requested does not require a variance of a flood hazard requirement.

(D) Upon an affirmative determination of suitability, the zoning enforcement officer shall notify, by registered or certified mail, all property owners abutting the property which is the subject of the modification request, and shall indicate the street address of the subject property in the notice, and shall publish in a newspaper of general circulation in the town that the modification will be granted unless written objection is received within thirty (30) days of the date of the public notice. If written objection is received within thirty (30) days, the request for a modification shall be denied. In that case, to continue, the applicant must follow the procedures for dimensional variance requests, as provided for in section 9 hereof. If no written objections are received within thirty (30) days, the zoning enforcement officer shall grant the modification. The zoning enforcement officer may apply such special conditions to the modification as may, in the opinion of the officer, be required to conform to the intent and purposes of this ordinance. The zoning enforcement officer shall keep public records of all requests for modifications, and of findings, determinations, special conditions, and any objections received. Costs of any notice required under this section shall be borne by the applicant requesting the modification.

(E) Upon the determination that the request is not suitable, the zoning enforcement officer shall notify the applicant in writing.

(F) Those provisions of the dimensional requirements of this ordinance to which the zoning enforcement officer is authorized to grant modifications or adjustments and the maximum extent of such modifications or adjustments are set forth below:

*Maximum Modification or Adjustment*

<i>R-1</i>	<i>Min/Max &amp;quired</i>	<i>% Modifi- cation</i>	<i>Maximum Modifica- tion</i>
Side Yard Setback	15'	25%	3.75'
Rear Yard Setback	30'	25%	7.5'
Coverage	30%	10%	3% of Lot Area
<i>RFR-80</i>	<i>Min/Max &amp;quired</i>	<i>%Modifi- cation</i>	<i>Maximum Modifica- tion</i>
Side Yard Setback	40'	25%	10'
Rear Yard Setback	50'	25%	12.5'
Coverage	15%	10%	1.5% of Lot Area
<i>Neighborhood Business</i>	<i>Min/Max &amp;quired</i>	<i>% Modifi- cation</i>	<i>Maximum Modifica- tion</i>
Side Yard Setback	25'	25%	6.25'
Rear Yard Setback	30'	25%	7.5'
<i>Commercial</i>	<i>Min/Max &amp;quired</i>	<i>% Modifi- cation</i>	<i>Maximum Modifica- tion</i>
Side Yard Setback	25'	25%	6.2'
Rear Yard Setback	50'	25%	12.5'
Coverage	75%	10%	7.5% of Lot Area
<i>Manufacturing</i>	<i>Min/Max &amp;quired</i>	<i>%Modifi- cation</i>	<i>Maximum Modifica- tion</i>
Coverage	75%	105	7.5% of Lot Area

(Ch. 134, § 13, 12-17-94)

#### Section 14. Land development projects.

(A) Pursuant to R.I.G.L., § 45-24-47, the following chapters of the Thwn of Hopkinton Code of Ordinances related to land development projects are hereby readopted as if set forth in their entirety herein:

- (1) Chapter 18, Article III, Residential Compounds, Sections 18-141-18-154.
- (2) Chapter 123; Cluster Residential Development [Chapter 18, Article IV, Sections 18-180-18-200).
- (3) Chapter 108, Planned Unit Development [Chapter 13.5, Sections 13.5-26--13.5-43].

(B) All open land provided by cluster residential developments, planned unit developments, or other land development projects for public or common use, shall either be conveyed to the town and accepted by it for park, open space, agricultural, or other specified use or uses, or be conveyed to a nonprofit organization, the principal purpose of which is the conservation of open space, or be conveyed to a corporation or trust owned or to be owned by the owners of lots or units within the development, or owners of shares within a cooperative development. If such a corporation or trust is used, ownership shall pass with conveyances of the lots or units. In any case where the land is not conveyed to the town, a restriction or conservation easement enforceable by the town shall be recorded providing that the land shall be kept in the authorized condition(s) and not be built upon or developed for accessory uses such as parking or roadway without prior approval of the town council.

(C) *Preapplication conference.* At the request of either the town or the applicant, a preapplication conference relating to a land development project shall be held to:

- (1) Acquaint the applicant with the comprehensive plan and any specific plans that apply to the parcel, as well as the zoning and other ordinances that affect the proposed development;
- (2) Suggest improvements to the proposed design on the basis of a review of the sketch plan;

- (3) Advise the applicant to consult appropriate authorities on the character and placement of public utility services; and
- (4) Help the applicant to understand the steps to be taken to receive approval, and review of appropriate application checklists.

(Ch. 134, § 14, 12-19-94)

#### Section 15. Development plan review.

(A) Development plan review of applications for uses that are permitted under the zoning ordinance is required for any permitted use other than single-family and two-family residential and accessory structures thereto, but the review shall only be based on specific and objective guidelines as set forth in chapter 109 [Ch. 13.5, §§ 13.5-70-13.5-73] of the Code of Ordinances of the 1bwn of Hopkinton. The review body is the planning board. A rejection of the application shall be considered an appealable decision pursuant to section 24 of this ordinance and shall be taken in accordance with the-procedures delineated in section 24(B).

(B) Development plan review may be conducted by the planning board at the request of the zoning board or town council for applications for uses requiring a special use permit, a variance, a zoning ordinance amendment, and/or a zoning map change. The review, conducted by the planning board, shall be advisory to the permitting authority.

(C) Nothing herein shall be construed to permit waivers of any regulations unless approved by the permitting authority pursuant to the zoning ordinance and the Zoning Enabling Act.  
(Ch. 134, § 15, 12-19-94)

#### Section 16. Adoption and amendment to zoning ordinance map.

(A) *Power of town council to adopt — Consistency with Hopkinton comprehensive plan.* For the purpose of promoting the public health, safety, morals, and general welfare, the tOwn council shall have the power, in accordance with the provisions of R.I.G.L., chapter 45-24-50, to adopt, amend, or repeal, and to provide for the administration, interpretation, and enforcement of the zoning ordinance. The provisions of the zoning ordinance set forth in text

and map(s), and all amendments thereto, shall be consistent with the comprehensive plan, as described in R.I.G.L., chapter 22.2, and shall provide for the implementation of the town's comprehensive plan.

(B) *Procedure for adoption or amendment.* The town clerk shall receive all proposals for adoption, amendment, or repeal of the zoning ordinance and/or zoning map(s). Immediately upon receipt of the proposal, the town clerk shall refer the proposal to the town council, and to the planning board for study and recommendation. The planning board shall, in turn, notify and seek the advice of the town planner, and shall report to the town council within forty-five (45) days after receipt of the proposal, giving its findings and recommendations as prescribed in R.I.G.L., section 45-24-52. Where a proposal for adoption, amendment, or repeal of the zoning ordinance or zoning map is made by the planning board, the requirements for study by the board may be waived, provided that the proposal by the planning board include its findings and recommendations pursuant to R.I.G.L., section 45-24-52.

The town council shall hold a public hearing within sixty-five (65) days of receipt of a proposal, giving proper notice as prescribed in R.I.G.L., section 45-24-53. The town council shall render a decision on any proposal within forty-five (45) days after the date of completion of the public hearing. The provisions of this section pertaining to deadlines shall not be construed to apply to any extension consented to by an applicant.

(C) *[Amendment or appeal to be filed with town clerk.]* Any individual proposing an amendment or appeal of a portion of this zoning ordinance and/or the zoning map(s), shall do so by filing with the town clerk an application describing the request. The form and such data and/or evidence which comprise such an application is set forth in appendix E.

(D) *Notice, hearing and decisions.*

- (1) The zoning ordinance shall not be adopted, repealed, or amended until after a public hearing has been held upon the question before the town council, notice of which shall be given in accordance with R.I.G.L., section 45-24-53.

- (2) Costs of any required notice shall be borne by the applicant.
- (3) In granting a zoning ordinance amendment, the town council may limit the change to one of the permitted uses in the zone to which the subject land is rezoned, and impose such limitations, conditions, and restrictions, including, without limitation:
  - (a) Requiring the petitioner to obtain a permit or approval from any and all state or local governmental agencies or instrumentalities having jurisdiction over the land and use which are the subject of the zoning change;
  - (b) Those relating to the effectiveness or continued effectiveness of the zoning change; and/or
  - (c) Those relating to the use of the land; as it deems necessary.

The town planner and the town clerk, shall cause the limitations and conditions so imposed to be clearly noted on the Hopkinton zoning maps and recorded in the land evidence records, provided, however, in the case of a zone change granted with limitations, restrictions, and conditions shall not be noted on the zoning map until the zone change has become effective. If the permitted use for which the land has been rezoned is abandoned or if the land is not used for the requested purpose for a period of two {2} years or more after the zone change becomes effective, the town council may, after a public hearing as hereinbefore set forth, change the land to its original zoning use before the petition was filed. If any limitation, condition, or restriction in an ordinance is held to be invalid by a court in any action, that holding shall not cause the remainder of the ordinance to be invalid.

- (4) The above requirements are to be construed as minimum requirements.

{Ch. 134, § 17, 12-19-94}

#### Section 17. Administration and enforcement of the zoning ordinance.

The local official responsible for administration shall be the zoning enforcement officer. The town council shall appoint as zon-

ing enforcement officer an individual with either zoning code enforcement experience or with such related education, training and experience to perform the duties of the position. The responsibilities of the zoning enforcement officer shall include:

- (1) The issuing of any required permits or certificates;
- (2) Collection of required fees;
- (3) Keeping of records showing the compliance of uses of land;
- (4) Authorizing commencement of uses or development under the provisions of the zoning ordinance;
- (5) Inspection of suspected violations;
- (6) Issuance of violation notices with required correction action;
- (7) Collection of fines for violations; and
- (8) Performing such other duties and taking such actions as may be assigned in the ordinance.

In order to provide guidance or clarification, the zoning enforcement officer shall, upon written request, issue a zoning certificate or provide information to the requesting party as to the determination by the official within fifteen (15) days of the written request. In the event that no written response is provided within that time, the requesting party shall have the right to appeal to the zoning board for the determination.

(Ch. 134, § 18, 12-19-94)

#### Section 18. Custody and maintenance of the zoning ordinance.

The town clerk shall be the custodian of the zoning ordinance and zoning map or maps created thereunder.

- (1) The responsibility for the maintenance and update of the text and zoning map comprising the zoning ordinance shall be the town planner and the town clerk. Changes which impact the zoning map shall be depicted on the map within ninety (90) days of the authorized change(s); and
- (2) The town planner and planning board shall be responsible for review of the zoning ordinance at reasonable intervals,

at a minimum of once every five (5) years; and whenever changes are made to the comprehensive plan, for the identification of any changes necessary and for the forwarding of these changes to the town council, in the form of a proposal for adoption, amendment or repeal of the zoning ordinance.

(Ch. 134, § 18, 12-19-94)

### **Section 19. Zoning board, establishment and procedures.**

(A) The 'lbwn of Hopkinton hereby creates a zoning board. The zoning board may engage legal, technical, or clerical assistance to aid in the discharge of its duties. The board shall establish written rules of procedure, a mailing address to which appeals and correspondence to the zoning board shall be sent, and an office where records and decisions shall be filed.

(B) The zoning board shall consist of five (5) members, each to hold office for the term of five (5) years; provided, however, that the original appointments shall be made for terms of one (1), two (2), three (3), four (4), and five (5) years, respectively. The zoning board shall also include two (2) alternates to be designated as the first [1st] and second [2nd] alternate members, their terms to be one (1) year. These alternate members shall sit and may actively participate in hearings. The first alternate shall vote if a member of the board is unable to serve at a hearing and the second shall vote if two (2) members of the board are unable to serve at a hearing. In the absence of the first alternate member, the second alternate member shall serve in the position of the first alternate. No member or alternate may vote on any matter before the board unless they have attended all hearings concerning that matter. If a vacancy occurs on the board, the town council shall appoint a new member for the unexpired term. The town council may remove members for cause after notice and a hearing thereon.

(C) Members of the zoning board serving on the effective date of adoption of the zoning ordinance shall be exempt from provisions of this section respecting terms of originally appointed members until the expiration of their current terms.

(D) The chairperson, or in his or her absence, the acting chairperson, may administer oaths and compel the attendance of witnesses by the issuance of subpoenas.  
(Ch. 134, § 19, 12-19-94)

## Sec. 20. Powers and duties of the zoning board.

The zoning board shall:

(A) Have the following powers and duties:

- (1) 1b hear and decide appeals in a timely fashion where it is alleged there is error in any order, requirement, decision, or determination made by the zoning enforcement officer in the enforcement or interpretation of this ordinance, or of any ordinance adopted pursuant hereto;
- (2) 1b hear and decide appeals from a party aggrieved by a decision by the Hopkinton Historic District Commission, pursuant to R.I.G.L., §§ 45-24.1-7.1 and 45-24.1-7.2;
- (3) 1b hear and decide appeals where the zoning board is appointed as the board of appeals for airport zoning regulations pursuant to R.I.G.L., § 1-3-19;
- (4) 1b authorize, upon application, in specific cases of hardship, variances in the application of the terms of the zoning ordinance, pursuant to R.I.G.L., § 45-24-41, and the terms of this ordinance;
- (5) 1b authorize, upon application, in specific cases, special-use permits, pursuant to R.I.G.L., § 45-24-42(A), and the terms of this ordinance;
- (6) 1b refer matters to the planning board, or to other boards or agencies of the town as the zoning board may deem appropriate, for findings and recommendations;
- (7) 1b conditionally approve a zoning application, where a proposed application would otherwise be approved except that one (1) or more state or federal agency approvals which are necessary are pending. A conditional

zoning approval shall be revoked in the instance where any necessary state or federal agency approvals are not received within a specified time period; and

- (8) To hear and decide other matters, according to the terms of this ordinance or other statutes, and upon which the board may be authorized to pass under the ordinance or other statutes; and

(B) Be required to vote as follows:

- (1) Five (5) active members shall be necessary to conduct a hearing. As soon as a conflict occurs for a member, that member shall recuse himself or herself, shall not sit as an active member, and take no part in the conduct of the hearing. Only five (5) active members shall be entitled to vote on any issue;
- (2) The concurring vote of three (3) of the five (5) members of the zoning board of review sitting at a hearing shall be necessary to reverse any order, requirement, decision, or determination of the zoning enforcement officer from whom an appeal was taken; and
- (3) The concurring vote of four (4) of the five (5) members of the zoning board of review sitting at a hearing shall be required to decide in favor of an applicant on any matter within the discretion of the board upon which it is required to pass under this ordinance, including variances and special-use permits.

(Ch. 134, § 20, 12-17-94)

## Section 21. Application procedure.

(A) The application procedures for the filing of appeals, requests for variances, special-use permits, and such other applications as may be specified herein, with the zoning board, consistent with the provisions of R.I.G.L., chapter 45-24-58, shall be those adopted and appearing in appendices A, B, C, and F of Hopkinton Applications and Checklists.

(B) A time period of one (1) year shall be required to pass before a successive similar application may be filed.

(C) Preapplication conference. At the request of either the town or the applicant, a preapplication conference shall be held to:

- (1) Acquaint the applicant with the comprehensive plan, as it may apply to the parcel, as well as the zoning and other ordinances that affect the proposed development;
- (2) Suggest improvements to the proposed design on the basis of a review of the sketch plan;
- (3) Advise the applicant to consult appropriate authorities on the character and placement of public utility services; and
- (4) Help the applicant to understand the steps to be taken to receive approval.

(D) An application fee as set forth in appendices A, B, C, and F shall be paid together with those actual costs incurred for mailing, legal advertising and professional services as determined by the zoning board to conduct adequate review and hearing of applications, including the costs of a competent stenographer, shall be paid by the appellant or applicant. Also, fees shall be charged for the issuance of zoning certificates, and for the recording of the decisions thereon. No application shall be deemed complete until all fees have been paid to the town.

(Ch. 134, § 21, 12-19-94)

## Section 22. Violations.

(A) The penalty for any violation of the zoning ordinance, or for a violation of any terms or conditions of any action imposed by the zoning board or of the zoning enforcement officer charged with enforcement of any of its provisions shall be up to five hundred dollars and zero cents (\$500.00) for each violation, and each day of the existence of any violation shall be deemed to be a separate offense. All fines shall be made payable to the Town of Hopkinton.

(B) The town may also cause suit to be brought in the Supreme or Superior Court, in the name of the Town of Hopkinton, to restrain the violation of, or to compel compliance with, the provisions of the zoning ordinance. The town may consolidate an action for injunctive relief and/or fines under this ordinance in the Superior Court of Washington County.

(Ch. 134, § 22, 12-19-94)

**Section 23. Decisions and records of the zoning board.**

(A) Following a public hearing, the zoning board shall render a decision within a reasonable period of time. The zoning board shall include in its decision all findings of fact and conditions, showing the vote of each member participating thereon, and the absence of a member or his or her failure to vote. Decisions shall be recorded and filed in the office of the zoning board within thirty (30) working days from the date when the decision was rendered, and shall be a public record. The zoning board shall keep written minutes of its proceedings, showing the vote of each member upon each question, or, if absent or failing to vote, indicating such fact, and shall keep records of its examinations, findings of fact, and other official actions, all of which shall be recorded and filed in the office of the zoning board in an expeditious manner upon completion of the proceeding. For any proceeding in which the right of appeal lies to the Superior or Supreme Court, the zoning board shall have the minutes taken either by a competent stenographer or recorded by a sound-recording device.

(B) Any decision by the zoning board, including any special conditions attached thereto, shall be mailed to the applicant, to the zoning enforcement officer, and to the Associate Director of the Division of Planning of the Rhode Island Department of Administration. Any decision evidencing the granting of a variance, modification; or special use shall also be recorded in the land evidence records of the town.

(Ch. 134, § 23, 12-19-94)

**Section 24. Appeals to the zoning board.**

(A) *Right of appeal.*

- (1) An appeal from any decision of any officer or agency charged in this ordinance with its enforcement may be taken to the zoning board by an aggrieved party.
- (2) An appeal from a decision of the zoning board may be taken by an aggrieved party to the Washington County Superior Court.

(B) *Appeals to zoning board and procedure.* An appeal to the zoning board from a decision of any zoning enforcement officer,

agency or officer may be taken by an aggrieved party. The appeal shall be taken within a reasonable time of the date of the recording of the decision by the said officer or agency by filing with the officer or agency from whom the appeal is taken, and with the zoning board, a notice of appeal specifying the ground thereof. The officer or agency from whom the appeal is taken shall forthwith transmit to the zoning board all the papers constituting the record upon which the action appealed from was taken. Notice of the appeal shall also be transmitted to the planning board. The form and such necessary data and evidence as comprised for such an appeal is set forth in appendix F, hereof.

(C) *Stay of proceedings.* An appeal shall stay all proceedings in furtherance of the action appealed from, unless the officer or agency from whom the appeal is taken certifies to the zoning board, after an appeal shall have been duly filed, that by reason of facts stated in the certificate a stay would in the officer or agency's opinion cause imminent peril to life or property. In that case, proceedings shall not be stayed other than by a restraining order, which may be granted by a court of competent jurisdiction on application thereof and upon notice to the officer from whom the appeal is taken on due cause shown.

(D) *Public hearing by zoning board.* The zoning board shall fix a reasonable time for the hearing of the appeal, give public notice thereof, as well as due notice to the parties of interest, and decide the matter within a reasonable time. Upon the hearing, any party may appear in person or by agent or by attorney. The cost of any notice required for the hearing shall be borne by the appellant.

(E) *Decisions and records of the zoning board.* In exercising its powers the zoning board may, in conformity with the provisions of R.I.G.L., chapter 45 reverse or affirm wholly or partly and may modify the order, requirement, decision, or determination appealed from and may make such orders, requirements, decisions, or determinations as ought to be made, and to that end shall have the powers of the officer from whom the appeal was taken. All decisions and records of the zoning board respecting appeals shall conform to the provisions of R.I.G.L., chapter 45-24-61. (Ch. 134, § 24, 12-19-94)

**Section 25. Participation in zoning bearing.**

Participation in a zoning hearing or other proceeding by a party shall not be a cause for civil action or liability except for acts not in good faith, intentional misconduct, a knowing violation of law, transactions where there is an improper personal benefit, or malicious, wanton, or willful misconduct.

(Ch. 134, § 25, 12-19-94)

**Section 26. Appeals.**

(A) *Appeals to superior court.* Any appeal of a decision of the zoning board to the superior court for Washington County shall be in accordance with R.I.G.L., § 45-24-69, or as it may be amended from time to time.

(B) *Appeal of enactment of or amendment to zoning ordinance.* An appeal of an enactment of or an amendment to this ordinance to the Superior Court for Washington County shall be in accordance with R.I.G.L., § 45-24-71, as it may be amended from time to time.

(Ch. 134, § 26, 12-19-94)

**Section 27. Sign regulations.**

The following regulations shall apply to all signs except those placed by a government agency as a public service in connection with highways and other public facilities.

(A) *Residential zones.*

(1) *Permitted Signs:*

- (a) Signs, not larger than three (3) square feet in area, identifying the occupant of the premises or identifying or regulating private property or a private way.
- (b) Signs, not larger than twelve (12) square feet in area, identifying permitted home occupations, agricultural, religious, educational, recreational, communal, medical, professional, government or utility uses or identifying lawful nonconforming uses. This shall include temporary signs advertising the sale or lease of the premises.

- (c) *Posting of land.*
  - (d) No billboards or outdoor advertising structure shall be permitted except that directional signs may be permitted by special use permit and shall not be larger than three (3) square feet.
  - (2) *Location of signs.* No sign shall be placed closer than fifteen (15) feet to a side or rear lot line and five (5) feet to a front lot line. No portion of any sign shall be located within a street right-of-way.
  - (3) *Lighting of signs.* Signs may be lighted only by continuous light, oriented to reflect away from adjacent properties. No animated, Hashing or revolving signs will be permitted.
- (B) *All other zones.*
- (1) *Permitted signs:*
    - (a) Signs in connection with permitted or lawful non-conforming uses provided that no sign shall exceed sixty (60) square feet in area without approval of the zoning board as a special use permit.
    - (b) No billboards or outdoor advertising structures shall be permitted except that directional signs may be permitted by special use permit.
    - (c) *Posting of land.*
  - (2) *Locations of signs:*
    - (a) No sign shall project more than five (5) feet above the roof line of the main building or extend over a public sidewalk or right-of-way. The maximum height for a freestanding sign shall be twenty (20) feet from ground level, and it shall be located on the parcel on which the business is conducted, except directional signs.
    - (b) No sign shall be placed within forty (40) feet of a residential district boundary.
  - (3) *Lighting of signs.* Signs may be lighted by any conventional method except that there shall be no illumination of a flashing, intermittent or moving type. Flood-lighting shall be so oriented that the source of light is directed away from adjacent properties and traffic arteries.

- (C) *Procedure for sign approval.* A description of all proposed signs over three (3) square feet in area shall be submitted to the zoning enforcement officer for approval. Upon approval, a permit shall be obtained from the zoning enforcement officer for all such signs erected within the limits of the town.

(Ch. 134, § 27, 12-19-94)

## Section 28. Off-street parking.

### {A} *Off-street parking facilities.*

- (1) Any structure or use, erected or constructed after the date of passage of this ordinance, shall provide off-street parking facilities in accordance with the following minimum requirements:
- (a) Hotel or motel. Five (5) parking spaces plus one (1) parking space for each unit or room.
  - (b) Restaurant; theater or other place of public assembly. One (1) parking space for every three (3) seats or for every three (3) persons of capacity.
  - (c) Hospital or institution. One (1) parking space for every bed.
  - (d) Office use. One (1) parking space for every two hundred fifty (250) square feet of floor area plus one (1) parking space for every two (2) employees.
  - (e) Retail or personal service business. One (1) parking space for every seventy-five (75) square feet of floor area.
  - (f) Manufacturing, industrial, storage or wholesale use. Two (2) parking spaces for every three (3) employees and one (1) parking space for each truck operated by the concern.
  - (g) Any other nonresidential use. One (1) parking space for every two hundred fifty (250) square feet of floor area.
- (2) Plans and specifications for the required parking facility and its access drives shall be submitted at the time of ap-

plication for a permit for the main use. In allocating area for off-street parking facilities, each parking space shall have a minimum width of nine (9) feet, a minimum length of eighteen (18) feet and shall be served by suitable aisles to permit access into all parking spaces. In no case shall the gross area per parking space be less than three hundred (300) square feet.

- (3) All parking facilities provided under this section, shall be constructed on or adjacent to the site of the main use. Non-residential off-street parking lots of more than two-motor-vehicle capacity shall conform to the following standards of construction:

- (a) The area shall have a dust-free, hard surface and shall be provided with bumper guards or tire stops when needed.
- (b) Where such area will adjoin a parcel on which there is a residence, an opaque hedge or fence not less than five (5) feet in height shall be erected and maintained between such area and the adjoining residential district.
- (c) Any lighting used to illuminate the parking area shall reflect away from adjoining residential areas and away from adjacent traffic arteries.

- (B) *Parking or storage of trucks, heavy construction equipment, travel trailers, tent trailers, or motorized campers in a residential zone.*

- (1) Not more than one (1) travel trailer, pickup camper, tent trailer, or motorized camp trailer may be stored by a person on his/her own property in a residential zone.
- (2) Trailer trucks and heavy construction equipment may not be stored or parked overnight in any front yard area, except for heavy construction equipment during the active on-site construction period.

(Ch. 134, § 28, 12-19-94) .

#### Section 29. Off-street loading requirements.

All commercial and industrial structures, erected subsequent to the adoption of this ordinance, shall provide off-street loading

facilities. Plans and specifications for such loading facilities shall be submitted to the zoning enforcement officer at the time of application for the building permit for the main use. Where a loading facility is to be located in or abutting a residential district, the restrictions contained in section 28 concerning surfacing, screening, and lighting shall apply. Such a loading facility shall be sufficient in size to eliminate the projection of vehicles into a street right-of-way.  
(Ch. 134, § 29, 12-19-94)

#### Section 30. Number of structures.

Not more than one (1) structure used for residential purposes including trailers or mobile homes shall be built or located upon any single lot in a residential zone.  
(Ch. 134, § 30, 12-19-94)

#### Section 31. Height exceptions.

Spires, towers, belfries, steeples, flagpoles, chimneys, water standpipes, communications antennae, silos or similar structures may be erected above the maximum height specified for each district, except for single-family and two-family dwellings, such structures are subject to development plan review.  
(Ch. 134, § 31, 12-19-94)

#### Section 32. Lots divided by a zoning district boundary.

Where a lot is divided by a zoning district boundary, the regulation for either zoning district shall apply except that no district shall, in effect, be extended more than thirty (30) feet into an adjoining district.  
(Ch. 134, § 32, 12-19-94)

#### Section 83. Floodplain and watercourse protection zone.

(A) *Zoning standards for the floodplain district.* The floodplain district is herein established as an overlay district. The underlying permitted uses are allowed provided that they meet the following additional requirements as well as those of the Rhode Island State Building Code dealing with construction in the floodplain. The floodplain district includes all special flood hazard ar-

eas designated as Zone A, A1-30 on the 3/16/81 Flood Insurance Rate Maps (FIRM), and the flood boundary and floodway maps, dated 3/16/81, on file with the town clerk, planning board and building inspector, as amended. These maps as well as the accompanying 9/16/80, Rhode Island Flood Insurance Study are incorporated herein by reference.

(B) *Development regulations.* The following minimum requirements apply in the floodplain district:

- (1) In the floodway, designated on the flood boundary and floodway map, the following provisions shall apply:
    - (a) All encroachments, including, fill, new construction, substantial improvements to existing structures, and other development are prohibited unless certification by a registered professional engineer is provided by the applicant demonstrating that such encroachment shall not result in any increase in flood levels during the occurrence of the one-hundred-year flood.
    - (b) The placement of mobile homes, except in an existing mobile home park or mobile home subdivision, are [is] prohibited in the floodway.
  - (2) In A1-30 zones on the flood insurance rate map, new or substantially improved mobile home parks require:
    - (a) That stands are elevated to or above base flood elevation;
    - (b) That adequate access and drainage is provided;
    - (c) That, if pilings are issued for elevation, construction standards for pilings are met.
- (C) *Permitted uses.* All uses permitted in those areas zoned Rural, Farm, Residential with the following provisions:
- (1) There shall be no encroachment, interference, alteration or restriction of the natural drainage or flow within the floodplain or watercourse except by special use permit.

- (2) None of the permitted uses shall result in the deposition of trash, fill earth sediment, debris, or liquid or solid waste matter of any kind into any watercourse or area within the zone except by special use permit.

Ch. 134, § 33, 12-19-94)

#### Section 34. Effective date.

This ordinance shall take effect upon passage.  
(Ch. 134, § 34, 12-19-94)

#### Section 35. Severability.

If any provision of this zoning ordinance or of any rule, regulation, or determination made hereunder, or the application thereof to any person, agency, or circumstance, is held invalid by a court of competent jurisdiction, the remainder of the zoning ordinance, rule, regulation, or determination made hereunder and the application of the provisions of other persons, agencies, or circumstances shall not be affected thereby. The invalidity of any section or sections of this zoning ordinance shall not affect the validity of the remainder of the zoning ordinance.  
(Ch. 134, § 35, 12-19-94)

TOWN OF HOPKINTON, RI  
ZONING ORDINANCE AMENDMENTS

An Ordinance in amendment of Appendix A Zoning, Chapter 134 Code of Ordinances of the Town of Hopkinton, RI as amended.

The Town Council of the Town of Hopkinton does hereby ordain as follows:

Appendix A Zoning, Chapter 134 of the Code of Ordinances of the Town of Hopkinton, Rhode Island is hereby amended as follows:

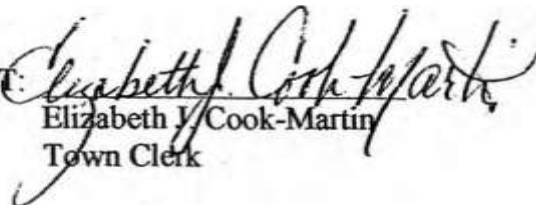
1. The following new section shall be added to Section 10, Special Use Permits:

E. The zoning board has the power to grant dimensional variances where a use is permitted by special use permit. An applicant may apply for, and be issued, a dimensional variance in conjunction with a special use permit. **If** the special use could not exist without the dimensional variance, the zoning board may consider the special use permit and the dimensional variance together to determine if granting the special use is appropriate, based on both the special use permit criteria and the dimensional variance evidentiary standards.

2. All other parts of Section 10 to remain in full force and effect.

3. T.JPs amendment shall take effect immediately upon passage.

Adopted: October 18, 2004

ATTEST:   
Elizabeth J. Cook-Martin  
Town Clerk

CHAPTER 184

An Ordinance in amendment of Section 28 Off-Street Parking, Chapter 134 of the Zoning Code of Ordinances, of the Town of Hopkinton, RI, as amended.

The Hopkinton Town Council hereby ordains that Section 28 Off-street parking of Chapter 134 of the Zoning Ordinances be amended as follows:

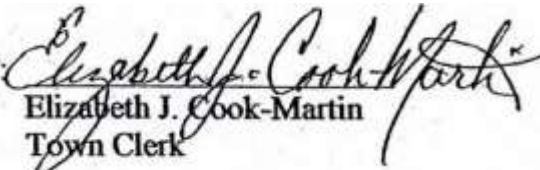
Section 28. Off-Street Parking.

(A) Off-street parking facilities.

(1) Any structure ouse, erected or constructed after the date of passage of this ordinance, shall provide off-street parking facilities ill accordance with the following minimum requirements:

(e) Retail or personal service business. One (1) parking space for every seventy five (75) two-huridred thirty ~~ve~~ (235) square feet of floor area.

Adopted: June 6, 2008

ATTEST:   
Elizabeth J. Cook-Martin  
Town Clerk

TOWN OF HOPKINTON, RHODE ISLAND

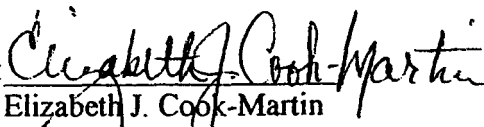
CHAPTER 154

AN AMENDMENT OF CHAPTER 134, SECTION 5 ENTITLED DISTRICT USE REGULATIONS, SUPPLEMENTAL REGULATIONS AND SECTION 5.1 DISTRICT USE TABLE-USE CATEGORY ARE HEREBY AMENDED AS FOLLOWS:

Use Category	RFR80	RES-I	Neighborhood Bus.	Commercial	Manuf.
5997- Drive Through Facility	N	N	N	S	S

This article will limit drive through facilities to Commercial and Manufacturing Zones.

Adopted: May 15, 2000

ATTEST:   
Elizabeth J. Cook-Martin  
Town Clerk

## TOWN OF HOPKINTON, RHODE ISLAND

### CHAPTER 151

#### THE TOWN COUNCIL OF THE TOWN OF HOPKINTON HEREBY ORDAINS

That the Code of Ordinances, Town of Hopkinton, Rhode Island, Chapter 134, Section 5, entitled "District Use Regulations, Supplemental Regulations shall be amended and Section 5.2 Supplemental Regulations Accessory Family Dwelling Units "shall be added as follows.:

#### Section 5.2 Supplemental Regulations, Accessory Family Dwelling Unit

##### 1. Purpose

This article regulates the design, construction and occupancy of accessory family dwelling unit structures. The intent of this article is to:

- a. Provide affordable opportunities for town residents requiring additional living space within or attached to their residences for the purpose of housing immediate blood relatives in an independent yet secure manner
- b. To protect neighborhood values and characteristics, especially the single family, low density, rural features that dominate the town's development patterns
- c. To ensure the protection of the environment and avoid pollution impacts resulting from intensified land use associated with the development of accessory family dwelling units.
- d. To provide guidelines to facilitate the application process for accessory family dwelling units.

##### 2. Guarantee of Owner Occupancy

The owner or owners of the one family lot upon which the accessory apartment is located shall occupy one of the residences thereon, except for bona fide temporary absences. Prior to the issuance of any special use permit for an accessory family dwelling unit, a certificate in the form of an affidavit (See attached affidavit form) to verify that the owner is in residence shall be presented to the Zoning Board of Review. Thereafter, the applicant shall submit such a notarized affidavit to the Zoning Enforcement Officer by January 31 of each year as a requirement for the continuance of the special use permit.

##### 3. Effective Period

The effective period for a special use permit for an accessory family dwelling unit shall be five years. At the end of this time period, renewal shall be granted by the Zoning Enforcement Officer

after inspection and upon written certification from the owner that all of the conditions met at the time of the original application remain unchanged.

#### 4. Change of Ownership

Special use permits for accessory family dwelling units shall be recorded in the Land Evidence records of the town of Hopkinton within 14 days of issuance. Change of ownership of the residence within which the accessory apartment is located shall cause the special use permit to terminate automatically. Subsequent owners of the property may make an application for a special use permit in their own name. Review of this subsequent application shall be conducted by the Zoning Enforcement Officer. The Zoning Enforcement Officer shall inspect the accessory apartment to determine whether all the terms and conditions of the original permit are met. In instances where there continues to be full compliance with the terms and conditions of the original special use permit, the Zoning Enforcement Officer may issue a new special use permit without review by the Zoning Board.

#### 5. Conditions

The accessory family dwelling unit is integral to principal residential structure and not integrated into an accessory structure such as a garage. The accessory family dwelling unit shall be designed so that to the degree reasonably feasible, the appearance of the building remains that of a one-family residence. Therefore:

- a. In general, any new entrances shall be located to the side or the rear of the building. In accordance with the applicable sections of the Rhode Island Building Code, the accessory family dwelling unit must have two separate means of egress.
- b. Additional floor space resulting from the construction of an accessory family dwelling unit shall not exceed 25% of the total floor area of the primary residence but in no case shall the accessory unit comprise less than 350 square feet of total floor space or more than 600 square feet of total floor space.
- c. Accessory family dwelling units shall be integrated in to the structure of the primary residence through a common wall that provides at least twelve feet in length of interior wall space to both the accessory and the primary dwelling units. An ingress/egress from one to the other shall be located on this common wall and shall enter into the main living quarters of both the accessory and the main dwelling units. Detached units and units which have merely tangential attachment to the primary residence structure are not permitted.
- d. The maximum number of bedrooms permitted shall be one. Guest rooms, dens, offices, studies, sewing rooms and workrooms are not permitted, nor is any type of room which has the potential to be converted to a second bedroom permitted within the accessory unit.
- e. Accessory family dwelling units are only permitted for single family residences. Only one

accessory family dwelling unit is permitted per residence.

## 6. Occupancy

Occupancy of all Accessory Family Dwelling Units shall be limited to two persons.

## 7. Utilities

Both the accessory family dwelling unit and the primary residential structure shall jointly share utilities. Electric service shall remain single service. The heating source for the accessory family dwelling unit shall be from the furnace or electric service of the main residence.

## 8. Application Procedures

### a.. Floor Plan/Building Elevation.

Applications for an accessory family dwelling unit must be accompanied by a floor plan of the existing residence and of the proposed accessory unit. Floor plans must be drawn to C.A.B. O. specifications, must be of sufficient clarity and detail to provide the Zoning Board of Review with sufficient information on which to demonstrate the adequacy of the proposed accessory unit and compliance with these regulations, and shall be drawn at a scale of not less than 1/4 inch to a foot. A street side building elevation must also be provided. The elevation drawing may be schematic.

### b. System Suitability Determination

All applications for an accessory family dwelling unit special use permit shall be accompanied by a valid "System Suitability Determination" issued by the Rhode Island Department of Environmental Management Individual Sewage Disposal Systems Division to ensure protection of natural resources and human health. Application which propose to add no additional bedrooms to the number of bedrooms existing in the main residential dwelling at the time of the application shall be exempt from this provision.


### c. Site Plan

Each application shall be accompanied by a site plan prepared by a professional engineer that clearly shows the location of all existing buildings, utilities, driveways, wells, stone walls, fences and existing vegetation along with the proposed accessory family dwelling unit.

d. Parking

One additional off street parking space shall be provided for each accessory family dwelling unit. Additional parking on the side of the main residence facing the street shall be prohibited.

ADOPTED: December 6, 1999

ATTEST:   
Elizabeth J. Cook-Martin  
Town Clerk

TOWN OF HOPKINTON, RHODE ISLAND

CHAPTER 149

THE TOWN COUNCIL OF THE TOWN OF HOPKINTON HEREBY ORDAINS

That the Code of Ordinances, Town of Hopkinton, Rhode Island, Chapter 134, Section 5, "District Use Regulations" is hereby amended as follows:

Number 48, entitled "Utilities, Communications and Sanitary Service", number 481 entitled "Communication including Towers and Antennas" shall read: Telecommunications Towers, Cellular/PCS Towers and Antennas." Section 5.1 shall be added entitled, "SUPPLEMENTARY REGULATIONS, Telecommunications Towers Cellular/PCS Towers and Antennas."

**Section 5. DISTRICT USE REGULATIONS**

District Use Table:481 Telecommunications, Cellular/PCS Towers & Antennas

	USE	RI	RFR80	NB	C	M	RS	NBS	CS	MS
481	Telecommunications Towers Cellular/PCS Antennas and Towers	N	N	N	S	S	S	N	S	S

Legend: N=Not Permitted S=Special Use Permit P=Permitted

**Section 5.1 SUPPLEMENTARY REGULATIONS**

**Section 5.1 -Telecommunications Towers, Cellular/PCS Towers and Antennas**

**1. PURPOSE**

This Article regulates the placement of new telecommunication towers and accessory equipment and the addition of communication equipment to existing structures. The intent of this Article is to:

- (a) require the location of towers for telecommunication equipment in non-residential areas and minimize the number of towers in the community;

- (b) strongly encourage the joint use of new and existing tower sites;
- (c) to minimize the following adverse impacts on the community:
  - 1. to prevent the degradation of scenic views that contribute to the character of the town.
  - 2. to prevent the degradation of neighborhood values that may result from the location of incompatible commercial land uses in residential areas of the town.
  - 3. to prevent or reduce public health hazards that may result from the operation of communications towers adjacent to or nearby residences.
- (d) provide guidelines to facilitate the application process.
- (e) This Article shall not govern any tower that is under 50 ft. in height and is constructed or installed for the following primary purposes:
  - 1. two-way radio systems
  - 2. amateur radio, as well as other radio services utilized by individuals at their residences as a hobby.
  - 3. Residential television/satellite reception

## 2. DEFINITIONS

As used in this Article, the following terms are defined as follows:

- a. *Antenna* means any exterior apparatus designed for telephonic, radio, or television communications through the sending and/or receiving of electromagnetic waves.
- b. *Cellular/PCS* means telecommunications systems which utilize a network of towers over a geographical area and whose purpose is primarily to provide mobile telephone and messaging services. This includes but is not limited to cellular systems, Personal Communications Services (PCS) and Enhanced Specialized Mobile Radio systems (ESMR)
- c. *Height* is the distance measured from average finish grade to the highest point on the tower or other structure, even if said highest point is an antenna.

- d. *Tower* means any structure that is designed and constructed primarily for the purpose of supporting one or more antenna and related equipment.

### 3. GENERAL GUIDELINES AND REQUIREMENTS.

- a. *Inventory of Existing Sites.* Each applicant for a special use permit for an antenna and or tower shall provide to the Building Department an inventory of existing towers that are within the Town of Hopkinton and within eight (8) miles of the proposed tower location, including specific information about the location, height, design and antenna capacity of each tower. This information will be made publicly available. All applicants shall send certified mail announcements to those parties identified in the inventory declaring their sharing capabilities and siting needs.
- b. *Federal Requirements.* All towers must meet standards and regulations in effect at the time of the application of any agency of the federal government with the authority to regulate towers and antennas. Subsequent failure to bring towers and antennas into compliance with revised standards and regulations shall constitute grounds for the removal of the tower or antenna at the owner's expense.
- c. *Safety Standards.* The owner of a tower shall ensure that it is maintained in compliance with the Rhode Island State Building Code. If the Building Official concludes that a tower and/or antenna fails to comply with the Code, then the Building Official shall proceed in accordance with Chapter 27.3 of Title 23 of the R.I.G.L. entitled "State Building Code".
- d. *Reporting Standards.* The permittee shall submit a report upon completion of construction and annually on January 1st, as well as a report every year thereafter, to the Building Official which provides quantified electromagnetic field (EMF) measurements and compares these measurements to current Federal and American National Standards Institute (ANSI) standards or subsequent standards. If the facility does not meet Federal and ANSI standards, the permit may be modified or revoked.

### 4. SPECIAL USE PERMITS

- a. *Information Required.* Each applicant requesting a special use permit under this Article shall submit an application for a Special Use Permit.

In addition, the applicant shall provide information on radio frequency coverage, tower height requirements, fencing, and other information deemed by the Zoning Board of Review at the time of review of application for

completeness to be necessary to assess compliance with this Article.

- b. *Suitability of Existing Towers or Other Structures for Collocation.* No new tower shall be permitted unless the applicant demonstrates to the reasonable satisfaction of the Zoning Board that no existing tower or structure can accommodate the applicant's proposed antenna. The Zoning Board of Review may require the applicant to pay for the services of an independent consultant who will be selected by the Zoning Board of Review. Evidence submitted to demonstrate that no existing tower or structure can accommodate the applicants proposed antenna shall include the following:
- (1) No existing towers or structures are located within the geographic area required to meet applicants engineering requirements.
  - (2) Existing towers or structures are not of sufficient height to meet applicant's engineering requirements.
  - (3) Existing towers or structures do not have sufficient structural strength to support applicant's proposed antenna and related equipment.
  - (4) The fees, costs, or contractual provisions required by the owner in order to share an existing tower or structure or to adapt an existing tower or structure for sharing are unreasonable. Costs exceeding new tower development are presumed to be unreasonable.
  - (5) The applicant demonstrates that there are other limiting factors that render existing towers and structures unsuitable.
  - (6) Except in cases where mechanical, structural or regulatory factors prevent them from sharing, applicants cannot be denied or deny space on a tower.
  - (7) All towers shall be available for use by the town's public safety agencies' radio communications equipment, free of tower rental fees providing that such use is reasonable, poses no technical difficulties and does not compromise the mechanical integrity of the tower.

## 5. DESIGN STANDARDS

The following design standards shall apply to all towers and antennas.

- a. *Minimum Capacity.* Any tower initially constructed for the primary use of a

cellular type communications network and /or Personal Communications Services (PCS) network shall be designed and constructed to accommodate at least three typical cellular/PCS systems.

b. *Height, Setbacks and Separation*

- (1) Tower height shall be the least minimum feasible and operable height possible which is consistent with the technical evidence for the radial area and the terrain being served, provided however that the maximum height shall be no greater than 175 ft.
- (2) Towers shall be set back a distance equal to three (3) times the tower height from any residential structure, zoning district boundary or lot line, whichever is closer.
- (3) Guys and accessory facilities must satisfy the minimum zoning district setback requirements for accessory structures.
- (4) Tower separation shall be maximized and the applicant shall provide technical evidence that the proposal identifies a maximum separation.

c. *Visual and Aural Impacts*

- (1) In order for the town to assess the visual impact of the proposed tower the applicant shall be required to fly a helium balloon at the proposed tower location and flown at the proposed height for a period of five days, providing such an operation poses no safety hazard. The balloon shall be of an orange or red color, shall be a minimum of 2.5 feet in diameter, shall be securely anchored and shall be of durable construction to withstand the testing period. The dates of this operation and its intended purpose shall be announced in a public notice in the local newspaper.
- (2) Unless otherwise required by FAA regulations, conventional lattice type towers shall maintain a galvanized steel finish so as to reduce visual obtrusiveness. Monopole type towers shall be painted a light, sky blue color to blend into the skyline.
- (3) Buildings and related structures shall use materials, colors, textures, screening, and landscaping that will blend the tower facilities into the natural setting.

- (4) If an antenna is installed on a structure other than a tower, the antenna and supporting electrical and mechanical equipment must be of a color so as to make the antenna and related equipment as visually -unobtrusive as possible.
- (5) Towers shall not be artificially lighted unless required by any agency of the federal government with the authority to regulate towers and antennas.
- (6) Noise.

The applicant shall provide a statement listing the existing and maximum future projected measurements of noise from the proposed facilities, measured in decibels Ldn {logarithmic scale, accounting for greater sensitivity at night), for the following:

- a. Existing, or ambient (the measurements of existing noise);
- b. Existing plus proposed facilities (the maximum estimate of noise from the proposed facility plus the existing noise environment).

Such statements shall be certified and signed by an acoustical engineer, stating that noise measurements are accurate.

- (7) There shall be no commercial signage attached to any tower or antenna. A small sign of dimensions acceptable to the Board, indicating the name and telephone number of the tower owner shall be attached to the security fence. Safety signs as required by law shall be permitted

d. *Landscaping*

- (1) Tower facilities shall be effectively screened with plant materials that effectively screens the tower base from adjacent residential property.
- (2) Existing mature tree growth and natural land forms on the site shall be preserved to the maximum extent possible.

e. *Security Fencing*

- (1) Towers and equipment shall be enclosed by security fencing not less than six (6) feet in height, with appropriate anti-climbing devices.

6. REMOVAL OF ABANDONED ANTENNAS AND TOWERS

The applicant/owner shall post a bond to cover the cost of removal. The applicant shall submit a re-evaluated bond every two years or the pennit will expire. The applicant shall submit an estimated cost of removal prepared by a consultant acceptable to the Zoning Board of Review. Any antenna or tower that is not operated for its intended communications purpose for a period of twelve (12) months shall be considered abandoned, and the owner of such antenna or tower shall remove same within ninety (90) days of receipt of notice from the Building Official notifying the owner of such abandonment. If such antenna or tower is not removed within said ninety (90) days, the Town may remove such antenna or tower at the expense of the tower's owner. If there are two or more users of a single tower, then this provision shall not become effective until all users cease using the tower.

ADOPTED: 1 ¥1 ' j"Jqt:j

ATTEST: Elizabeth J. Cook-Martin  
Elizabeth J. Cook-Martin  
Town Clerk

AN ORDINANCE IN AMENDMENT OF CHAPTER 134

SECTION 27 ENTITLED "SIGNS"


R. FEES

The following fee shall be charged for the review and approval of a sign permit.

ALL SIGNS.....Administrative Fee \$10.00

This Ordinance shall take effect upon passage

ADOPTED: September 2, 1997

ATTEST:  O#e-  
Jenarita f. Aldrich, CMC  
Town Clerk

AN ORDINANCE IN AMENDMENT OF CHAPTER 134

4 -

Section 27 Entitled "SIGNS"

In accordance with the provisions of Chapter 45-24, R.I.G.L., including those sections known as the "Rhode Island Zoning Enabling Act of 1991", it is ordained by the Town Council of the Town of Hopkinton that Chapter 134 - Section 27 Sign Regulations, of the Code of Ordinances of the Town of Hopkinton entitled "Zoning Ordinance", as amended, be repealed in its entirety and that it be revised as follows:

SECTION 27

*SIGNS*

A. Purpose

The provisions of this Section (the word "Section" when capitalized, indicates Section 27 of the Hopkinton Zoning Ordinance) are made to establish reasonable and impartial regulations for all exterior signs and to further the objectives of the Hopkinton Comprehensive Community Plan; to protect the general public health, safety, convenience and welfare; to eliminate traffic hazards caused by signs which may distract, confuse, and impair the visibility of motorists and pedestrians; to ensure the effectiveness of traffic signs and signals; to protect the public investment in streets, highways, and other public improvements; to facilitate the creation of an attractive and aesthetically harmonious community; to protect property values; and to further economic development.

B. Definitions

As used in this Section unless otherwise expressly stated in this Section the following definitions shall apply:

1. Awning Sign - A frame structure with a covering designed in awning form, the purpose of which includes signage.
2. Banner - Any piece of flexible material bearing a design, motto, advertisement or commercial message.
3. Billboard - See definition of Off-premise sign
4. Bulletin Board - A permanent structure where current notices and information are posted, which may be of interest to the general public.

5. Commercial Center- A group of commercial businesses or uses in one or more buildings or structures, located on a single site, and managed by a single business entity.
6. Directory- A sign which identifies the occupant(s) and/or uses in a professional, business, or manufacturing building(s) on the site of the uses.
7. Directional Sign- A sign giving directions to the location of any use or activity.
8. Electric Awning Sign -A frame structure with translucent covering designed in awning form, the purpose of which includes signage, and which is internally illuminated.
9. Freestanding Sign- A sign supported by one or more poles, uprights, braces or frames or similar structures, and not attached or supported by any building or wall.
10. Illuminated Sign -A sign illuminated from within, including neon signs.
- II. Indirectly Illuminated Sign -A sign illuminated from an artificial exterior source.
12. Marquee -Any permanent roof-like structure projecting from a building designed and constructed to provide protection from the weather.
13. Manufacturing Park or Center- A group of manufacturing businesses or uses in one or more buildings or structures, located on a single site, and controlled by a single business entity.
14. Monument Sign - A freestanding sign with a base affixed to the ground which measures at least two-thirds the horizontal length of the sign.
15. Nonconforming Sign -A sign that met all legal requirements, when constructed, but that is not in compliance with this Section.
16. Off-Site Directional Sign -A directional sign which is not on the premises of the use or activity.
17. Off Premise Sign -A sign, including a billboard, which advertises a use or activity, or a product not sold nor manufactured on the property on which the sign is located.
18. On-Premise sign -A sign which advertises a use or activity located on, or a product sold or manufactured on the property on which the sign is located.
19. Plaza -An open area or courtyard within a developed site.
20. Portable Sign- A sign not attached to a building or structure or attached to the ground and which is capable of being placed upon various locations on a lot, for example; A-frame

## SECTION 27 - SIGNS

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signs, trailer signs and the like.

21. Projecting Sign - A sign that projects from the exterior of any building or wall.

22. Roof-Mounted Sign - A sign placed upon the roof of any building or portion thereof, or erected on a framework supported by the roof of a building.

23. Sign- Any device, fixture, placard, or structure that uses any color, form, image, illumination, symbol, or writing to advertise, announce the purpose of, or identify the purpose of a person or entity, or to communicate information of any kind to the public.

24. Temporary Sign -A sign that is displayed only for a specified period of time.

25. Trailer Sign- A sign which is mounted or designed for mounting on wheels, or which is mounted or designed for mounting on a self-propelled or towed vehicle. Such signs shall include advertising signs attached to a truck, chassis, detachable vehicle trailer or other such signs, but shall not include signs painted or otherwise inscribed on a self-propelled or towed vehicle which identify the product, service or an activity for which the vehicle is used, unless the principal use of such vehicle is for advertising purposes.

26. Wall-Mounted Sign -A sign erected against, painted on or attached to the wall of any building or structure, including signs affixed to fences, screens and freestanding walls.

27. Window Sign - Any sign that is placed inside or upon the window panes or glass and is readily visible from the exterior of the window.

C. Sign Computations

- I. Area - The area of a sign face shall be taken as the smallest rectangle that will enclose the extreme limits of the writing, representation, emblem, or other display, together with any material or color forming an integral part of the background display or used to differentiate the sign from the backdrop or structure against which it is placed, but not including any supporting framework, bracing, fence or wall. Any such fence or wall shall otherwise meet the zoning ordinance regulations and be clearly incidental to the display itself. Where a sign has two or more faces, the area of all faces shall be included in determining the area of the sign, except that where two such faces are placed back to back and are at no point more than 16 inches from one another, the area of the sign shall be taken as the area of the larger face.
2. Height - The height of a sign is measured from the normal grade directly below the sign to the highest point of the sign or any of its supports. Any elevation of the normal grade in the vicinity of the sign will be added to calculate the maximum height of the sign.
3. Setback - The distance from the outermost edge of the sign to the public right-of-way.
4. Projection Over Public Right of Way - The distance perpendicular to the property line, from the property line to the outermost edge of the sign, over any public right of way.

## SECTION 27 - SIGNS

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### D. Signs Permitted in Any Zoning District (No Sign Permit Required)

The following signs are permitted, provided, however, that such signs shall conform to all other applicable regulations, and further provided that such signs shall be neither illuminated nor indirectly illuminated, except as otherwise specified herein:

1. Name and Address of Resident, not to include any commercial advertising. Such signs shall not exceed two square feet in area per side, and shall be limited to one such sign per dwelling unit.
2. No Trespassing Signs, or other such signs regulating the use of the property on which it is located, provided such signs do not exceed two square feet in area.
3. Real Estate Signs, which advertise the sale, lease or rental of the property on which it is located, and shall not exceed six square feet in area.
4. Signs Erected by the Town of Hopkinton, the State of Rhode Island or by the United States of America, pursuant to and in discharge of any governmental function, or required by any law, ordinance or governmental regulation. Such signs may not be illuminated.
5. Memorial Signs or Tablets, and signs denoting the date of erection of buildings. Signs denoting the date of erection of buildings shall be wall-mounted or located on the ground and shall not exceed three square feet in area.
6. Election Signs, permitted in all zoning districts, with permission of the land owner. Election signs shall be removed within 10 days after the election, by the landowner where the sign is located. Signs are not to exceed 32 square feet. No signs may be posted within a public right-of-way, including trees, utility poles or traffic signs.
7. The following signs customary and necessary to the operation of gasoline filling stations - Any sign required by federal or state statute, not to exceed two and one half square feet per side, each.
8. Sale of produce raised on land signs shall be no larger than 12 square feet per side or two signs no larger than six square feet each per side, and shall not be illuminated in any manner.
9. Handicapped Parking Space Sign - Signs not exceeding two square feet in area reserving parking spaces for handicapped motorists.

## SECTION 27 - SIGNS

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10. Bulletin Boards, for non-commercial institutions, such as libraries, churches and schools, when located on-premise, provided such signs do not exceed 15 square feet total and bear no commercial advertising. There shall be no more than one such sign per site. Such sign may be indirectly illuminated. Where a bulletin board has two or more faces, the area of all faces shall be included in determining the area of the bulletin board, except that where two such faces are placed back to back and are at no point more than 16 inches from one another, the area of the bulletin board shall be taken as the area of the larger face.
11. Trash Container/Dumpster- Signage or lettering indicating the owner/operator of the trash container shall be limited to 3 square feet. All such containers located in the Town of Hopkinton shall comply with this requirement within one year of the adoption of this Section.
12. Sale Signs- Signs which advertise sale events are permitted for a time period of up to 2 weeks per event or per Holiday.

### E. Signs Prohibited in All Zoning Districts

The following signs shall not be permitted in any Zoning District:

1. Signs which have any visible moving parts, including signs which are designed to achieve movement by action of wind currents, or which have mobile or revolving parts or which have animated parts (except time or temperature devices), provided however, that barber poles ordinarily and customarily used in connection with barber shops are allowed if they comply with all provisions of this Section.
2. Signs which incorporate in any manner any intermittent or moving illumination, animation, or illumination which varies in color (except intermittent time or temperature devices).
3. Any Sign or sign support which constitutes a hazard to public safety or health, including signs which obstruct the vision of a driver, or obstruct or detract from the visibility or effectiveness of any traffic sign or control device on public streets and roads; or which obstruct free ingress to or egress from an exit way; or which make use of words such as "stop", "look", "one way", "danger", "yield", or any similar words, phrases, symbols, lights or characters, which may interfere with, mislead or confuse traffic.
4. Searchlights are prohibited.

## SECTION 27 - SIGNS

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5. Pennants, spinners, banners and streamers unless associated with events of religious, public or charitable organizations are permitted for a period not to exceed 20 days or for new business openings for a period not to exceed 20 days. Also, entrance pennants, banners and flags not to exceed two per location shall be allowed. Vendor related banners shall be allowed at the rate of 2 banners per 25 linear feet of building.
6. Projecting signs which are erected so as to project from the exterior of any building, or wall and which exceed 12 square feet in area, or which project more than four feet from the exterior of said building or wall. Nothing herein shall be construed to permit the erection of any projecting sign over a municipal right-of-way, without the approval of the Building Inspector.
7. Roof-Mounted Signs- which are mounted above the highest peak of the roof on which they are placed.
8. Trailer Signs or portable signs, including portable billboards.
9. Off-Premises Signs, including billboards, unless as permitted in Sections 1.2 & K.
10. Awning or Electric Awning Signs- However, canvas awning signs with no illumination and conforming to dimensional requirements within the zoning district which it is located, are permitted.
- II. Window Signs, which in the aggregate exceed 50% of the total window area.
12. Inflatable Signs / Devices
13. Vendor or Franchise Signs -Permanent signs which are required by vendor or franchise related products and do not meet current requirements of this Section, relief shall be available from the Zoning Board of Review through an application for a Special Use Permit".

## SECTION 27 - SIGNS

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### F. Signs in Residential Zoning Districts

All signs in Residential Districts shall conform to the following regulations:

1. Single Use There shall be no more than one sign, other than a sign identifying the name and address of the occupant as specified in Section 27.0.1, for such residential lot. Such signs may identify the premises and/or identify a permitted customary home occupation, including real estate and professional offices in the home, and shall not exceed six square feet per side in area.
2. Lighting of Signs Only indirectly illuminated continuous light, directed away from adjacent properties and traffic.
3. Entrance Signs Permanent signs at major entrances to residential developments designed only to identify such developments shall be permitted provided such signs bear no commercial advertising; and do not exceed 15 square feet in area.
4. Dimensional Requirements

Height:	6 feet
Front Yard Setback:	10 feet'
Side Yard Setback:	15 feet
Rear Yard Setback:	15 feet

• = or equal to the least setback of abutting buildings

G. Signs in Neighborhood Business District

All signs in the Neighborhood Business District shall conform to the following regulations:

1. Single Use There shall be no more than one sign for the principal property, use or business, except as otherwise specified in this Section. The sign may be either wall-mounted, freestanding, marquee, monument or projecting.
2. Multiple Uses There may be no more than one directory identifying the uses or businesses on the property. The uses or businesses shall share the maximum total square footage allowed in this district. In addition, one wall mounted sign not to exceed three square feet shall be allowed per business or use.
3. Dimensional Requirements

Size:	20 square feet
Height:	8 feet
Front Yard Setback:	10 feet
Side Yard Setback:	15 feet
Rear Yard Setback:	15 feet

  - = or equal to the least setback of abutting buildings
4. Lighting of Signs Only indirectly illuminated continuous light, directed away from adjacent properties and traffic.
5. Vision No freestanding sign shall be erected in such a manner as to materially impede vision or obstruct access to or from any public street, sidewalk, driveway, off-street parking or loading facility, or any other access required by this Section.

## SECTION 27 - SIGNS

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### H. Signs in Commercial Districts

All signs in the Commercial District shall conform to the following regulations:

1. Single Use There shall be no more than one sign for the principal property, use or business, except as otherwise specified in this Section. The sign may be either wall-mounted, freestanding, marquee, monument or projecting. No billboards or outdoor advertising structures, either mobile or stationary, shall be permitted, other than signs. If the building or use fronts on more than one public street, one such sign shall be permitted on each exterior face of the building.

2. Multiple Uses In commercial centers there may be no more than one wall-mounted sign for each business or use. In addition to such wall-mounted signs, there shall be permitted in commercial centers one common freestanding sign identifying all uses in the center. The dimensions and limits of such signs are included in Table I below. If the business or use has multiple exterior wall faces, one such sign shall be permitted on each exterior face, which fronts on a public street provided the business or use fronts more than one public street, and is without a common free-standing sign.

Table 1 -  
Size Limits for Common Freestanding Sign:

Gross Floor Area of Commercial Center (Square Feet)	Maximum Area of Freestanding Sign (Square Feet)	Maximum Height of Freestanding Sign (Feet)
< 50,000	32 Square Feet	12 Feet
> 50,000	64 Square Feet	16 Feet

3. Additional Signs Permitted in Commercial Centers

- (a). Informational or Directory Signs identifying on-premises traffic, hours of operation, business affiliations, parking or other functional activity, such as lavatory facilities, telephones, sections of a building, entrances, offices, tenant names in commercial centers, bearing no commercial advertising. There shall be no more than one sign for each applicable activity or building, unless part of an approved signage plan for a commercial center, and each sign shall not exceed three square feet. Such signs may not be illuminated.
- (b). Main Entry Signs to identify the entrance into a commercial center. Signs shall display only the name of the center or its logo. A main entry sign shall not be permitted if an informational or directory sign is constructed. A main entry sign shall conform to the dimensional requirements of Section H.- 4.
- (c). Ceiling Hung Signs to identify entrances to each tenant space or use. Signs shall display the name of tenant or its logo of the center. Signs shall not exceed eight square feet. Ceiling hung signs shall be rigidly secured and shall have a minimum clearance of seven feet - six inches.
- (d). Plaza Directory Sign to identify tenants within a plaza. Signs may contain multiple tenant names on a freestanding support system, with a combined sign area not to exceed four square feet. One such sign shall be permitted per plaza area.
- (e). Special Use Signs to identify the location of central facilities or a multi-use space within a commercial center such as a food court, atrium, etc. for use by the general public. Such signs shall indicate the use or its logo of the center, and shall conform to the dimensional requirements specified in Section H. - 4.

## SECTION 27 - SIGNS

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### 4. Dimensional Requirements

Size: one square foot per two linear feet of  
building length, not to exceed 32 square feet

Height: 12 feet  
Front Yard Setback: 10 feet  
Side Yard Setback: 15 feet  
Rear Yard Setback: 15 feet

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\* No sign shall be placed within 5 feet of a Residential District.

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5. Lighting of Signs Only indirectly illuminated continuous light, directed away from adjacent properties and traffic.

6. Vision No freestanding sign shall be erected in such a manner as to materially impede vision or obstruct access to or from any public street, sidewalk, driveway, off-street parking or loading facility, or any other access required by this Section.

## SECTION 27 - SIGNS

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### I. Signs in Manufacturing Districts

All signs in the Manufacturing District shall conform to the following regulations:

1. Single Use There shall be no more than one sign for the principal property, use or business, except as otherwise specified in this Section. The sign may be either wall-mounted, freestanding, marquee, monument or projecting and sized according to the following: one square foot per two linear feet of building length, not to exceed 64 square feet.

2. Multiple Use The following signs are permitted in manufacturing parks or centers:

(a). One freestanding sign for the park/center not to exceed 32 square feet in the form of a directory sign or identification sign.

(b). One sign per individual building, not to exceed 20 square feet.

(c). One sign per individual establishment within each individual building, not to exceed 20 square feet.

3. Dimensional Requirements

Height:	15 feet
Front Yard Setback:	10 feet
Side Yard Setback:	15 feet
Rear Yard Setback:	15 feet

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\* No sign shall be placed within **5** feet of a Residential District.

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4. Lighting of Signs Only indirectly illuminated continuous light, directed away from adjacent properties and traffic.

5. Vision No freestanding sign shall be erected in such a manner as to materially impede vision or obstruct access to or from any public street, sidewalk, driveway, off-street parking or loading facility, or any other access required by this Section.

## SECTION 27 - SIGNS

Table 2

Summary Dimensional Limits: All Zoning Districts +

### DISTRICT

DIMENSION	RES- HOME	RES- REAL EST.	RES- ENTRY SIGN	COM- SINGLE& MULTI<50K SF	COM- MULTI >50KSF	... NEIGHBOR- HOOD BUSINESS	MAN- SINGLE	MAN- MULTI- BLDG& INDIV. USE	MAN- MULTI- FREE STANDING
SIZE	1SF	6 SF	15SF	31SFMAX'	64SF MAX	20SF	64 SF'	10 SF	31SF
HEIGHT	6FT	6FT	6n'	11FT	16FT	8FT.	15 FT.	15FT.	15FT.
FRONT YARD SETBACK	10FT	10FT	10n'	10FT	10FT	10FT.	10FT.	10FT.	10FT.
SIDE YARD SETBACK	15FT	15FT	15n'	15FT	15FT	15FT.	15FT.	15FT.	15FT.
REAR YARD SETBACK	15FT	15FT	15n'	15FT	15FT	15FT.	15FT.	15FT.	15FT.

- -One (1) square foot per two (2) linear feet of building length, not to exceed....
- + - Unless otherwise specified
- SF - Square Feet
- FT - Feet

RES - Residential Districts  
 COM - Commercial Districts  
 MAN - Manufacturing Districts

In Commercial and Manufacturing Districts, no sign shall be placed within 40 feet of a Residential District.

J. Temporary Signs .

The following temporary signs are allowed in any Zoning District provided that they conform to the following provisions, and that they are granted a temporary sign permit as required in Section N. Such temporary signs shall be neither illuminated nor indirectly illuminated.

I. Contractor Identification Signs, customary and necessary in connection with the erection of buildings or other significant construction work shall be limited to one sign for each construction project to include the identification of the project, designer, sponsor or builder. Such signs shall not exceed 12 square feet in any residential district, 20 square feet in any Neighborhood Business District, or 32 square feet in any Commercial or Manufacturing District, and shall be removed within 10 days after the expiration of the permit. Signs, not to exceed six square feet, identifying the contractor or builder only on a single family home construction site, shall not be subject to this section.

2. Event Signs, no larger than 20 square feet which advertise auctions and special events conducted by non-profit organizations provided such signs shall not be in place more than 30 days. No more than three signs advertising any such event shall be erected or maintained at any one time within the Town of Hopkinton.

3. Real Estate Signs which are in place for more than six months, and which advertise in any way the sale or lease of the property on which they are located, which do not exceed six square feet in a residential district, shall be exempt from obtaining a temporary sign permit. However, signs in a neighborhood business district shall not exceed 20 square feet, or 32 square feet in a commercial or manufacturing district and shall be subject to this section. No such real estate sign shall be maintained more than 10 days after completion of the lease or sale of the property.

For approved residential subdivisions, in lieu of individual lot for sale signs, there may be one common sign, not to exceed 32 square feet per side, per separate entrance, advertising the property for sale and not to be in place for more than two years, without an extension granted by the Zoning Board of Review.

K. Off-Site Directional Signs

I. Off site directional signs shall be permitted in any zoning district where the location of a use requires such signs in order to avoid confusion, traffic congestion or similar inconveniences, and to facilitate travel to such location. Off-site directional signs shall require the permission of the landowner for their erection. Such signs shall measure 6" by 24", have a white background with green letters of Helvetica style. Such signs shall be no less than 6 feet in height and no more than ten feet in height. Multiple signs at one location shall be adhered to a single support system to the maximum extent possible.

2. Off-Site Directory Sign, proposed by a group of businesses, located along the Route 3 corridor and within a commercial or manufacturing district, may be permitted by approval of the Zoning Board of Review as a Special Use Pennit, as provided for herein, and with RIDOT approval of the location.

· L. Sign Permits

A sign permit shall be required for all signs hereafter erected, installed or replaced, unless specifically exempted by this Section. Such permits shall be issued by the Zoning Enforcement Officer and shall be in addition to any other permits required by this or any other ordinance of the Town.

M. Application for a Sign Permit

1. Application for sign permit shall be made in writing upon forms provided by the Zoning Enforcement Officer.

2. The following information shall be provided:

(a). The size and type of the proposed signs, area, height, width, thickness, illumination, and material of which is to be constructed.

(b). A detailed drawing showing the description of the construction details of the sign and showing the lettering and/or pictorial matter composing the sign, position of lighting or other extraneous devices, and support structures.

(c). The location of the sign in relation to the building and all property lines and streets.

(d). Name, address, telephone number of the applicant and/or owner

(e). Address of the property where sign is to be located (Plat & Lot)

(t). Signature(s) of the applicant and/or owner

3. The Zoning Enforcement Officer may require any other such information as may be reasonably necessary to administer the provisions of this Section relating to signs. For temporary signs, information required in items 2. (a), (b), & (c) above may be waived by the Zoning Enforcement Officer provided that other information necessary to determine compliance with the ordinance is prohibited.

N. Issuance of Permits

If the Zoning Enforcement Officer finds the proposed sign to be in compliance with this Section, he/she shall issue such sign permit within 10 days after the filing of the application.

If the erection or installation of the sign authorized under any such permit has not been started within six months from the date of the issuance of such permit, and diligently pursued until completed, the permit shall become null and void.

The expiration date of a temporary sign shall be clearly displayed on the sign.

O. Temporary Sign Permits

No temporary sign, as described in Section J., shall be erected, installed or maintained without first obtaining a permit thereof. Any such permit may be issued for a period not to exceed six months, and shall provide that any sign authorized by such permit shall be removed at the expiration of said six month period, or within 10 days after the completion of the activity advertised, whichever shall be sooner, and shall not exceed the six month period.

A permit for a temporary sign may be extended or renewed at the discretion of the Zoning Enforcement Officer for additional six month periods, not to exceed a total of 24 months, unless otherwise specified herein.

If the applicant shall fail to remove such sign, the Zoning Enforcement Officer after 10 days written notice to the applicant to remove such sign, and after the failure of the applicant to do so, shall cause said sign to be removed and may impose a fine upon the applicant, as set forth in Section 22 of the Hopkinton Zoning Ordinance entitled "Violations."

## SECTION 27 - SIGNS

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### P. Hazardous or Obsolete Signs

All signs must be free from all hazards such as, but not limited to, faulty wiring or loose fastenings, and must be maintained at all times in such safe condition so as not to be detrimental to the public health or safety.

Signs associated with an abandoned use as defined herein, shall be removed within 60 days after the date they become obsolete. In the event of a violation of any of the foregoing provisions of this Section, the Zoning Enforcement Officer shall give written notice to remove any such sign within 60 days from the date of said notice. A sign in a state of disrepair, so as to create a nuisance, shall be removed within 60 days of written notice by the Zoning Enforcement Officer.

### Q. Abatement and Removal of Unlawful or Unsafe Signs

Upon failure to comply with the provisions of said notice specified in Section O. & P., the Zoning Enforcement Officer shall notify the owner of such sign of the violation of this Section, and request appropriate action be taken to obtain conformance with this Section, or removal of such sign. When any sign is in such condition as to be an immediate hazard and peril to the safety of the public or to property, the Zoning Enforcement Officer is hereby authorized to cause any such sign to be removed summarily without notice and shall collect from the owner of such sign all costs associated with removal.

SECTION 27 - SIGNS

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R. Non-Conforming Signs

Signs existing at the time of the enactment of this Section, notwithstanding Section P., and not conforming to its provisions, but which did conform to previous laws, shall be regarded as non-conforming signs, which may be continued. Non-conforming signs which are relocated or replaced, shall comply immediately with the provisions of this Section. An illegal sign is not a non-conforming sign. If a nonconforming sign is damaged by accident or an act of God, such sign shall be allowed to remain as a nonconforming sign. Non-conforming signs may be modified or structurally altered, however, they may not be relocated or increased in size

R .

The following fee shall be charged for the review and approval of a sign permit:

All Signs.....fee schedule to be established by the Town Council.

This Ordinance shall take effect upon passage.

ADOPTED; JULY 21, 1997

ATTEST:

  
JENARITA F. ALDRICH, CMC

## CHAPTER 131

An Ordinance entitled "Groundwater & Wellhead Protection Ordinance, an ordinance in amendment of Chapter 134 of the Code of Ordinances of the Town of Hopkinton, as amended.

It shall hereby be ordained by the Town Council of the Town of Hopkinton, RI to adopt Chapter 131 Groundwater and Wellhead Protection Ordinance, an ordinance further amending Chapter 134 of the Zoning Ordinances of the Town of Hopkinton, to add the following provisions;

*Amend Section 2 Definitions, to include the following definitions:*

*Aquifer. A saturated, permeable geologic formation that can yield significant quantities of water, to wells, springs or surface water bodies.*

*Aquifer Protection Permit. A permit allowing a use designated by the letter "A" in the Primary or in the Secondary Groundwater and Wellhead Protection Zone District in the District Use Table of this Ordinance.*

*Best Management Practice: A schedule of activities, prohibition of practices, maintenance procedures and other management practices designed to prevent or reduce the degradation of the town's groundwater quality*

*Community Water System: A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.*

*Conservation Commission: The Conservation Commission of the Town of Hopkinton.*

*Containment Structure: A structure designed, built and maintained for the purpose of sufficiently enclosing an above ground storage tank or individual storage containers. e.g. drums, to contain spills until spill cleanup and which precludes entry of water and other materials not intended for storage therein and from which entry by unauthorized persons is prevented.*

*Groundwater: Water found underground which completely fills the open spaces between particles of sediment and within rock formations.*

*Hazardous Material: Any material defined as a "hazardous substance" by section 101(I4) of the Comprehensive Environmental Response, Compensation and Liability Act [CERCLA] of 1980 (42 USC 9605) as amended. Hazardous Material shall include any hazardous waste as well as any of the following materials: acetone, ethanol, ethylene oxide, methanol, methylene chloride, perchloroethylene and petroleum products. The enumeration of the above materials is not intended in any way to minimize the list of materials defined in the aforesaid section.*

*Non-Transient Non-Community Water System: A non-community water system that regularly serves at least 25 of the same persons over six months of the year.*

*Primary Groundwater and Wellhead Protection Zone Overlay District. Those areas depicted on that certain map entitled "Groundwater and Wellhead Protection Map, Hopkinton, RJ", dated March 22, 2004 or the most recent revision adopted by the town council, which map is on file in the records of the Town Clerk of the Town of Hopkinton.*

*Recharge Area: The land surface from which water is added to the zone of saturation. The recharge area for a particular well or aquifer is that land surface from which water moves to the well or aquifer or may move to the well or aquifer under certain hydraulic conditions.*

*Secondary Groundwater and Wellhead Protection Zone Overlay District. Those areas depicted on that certain map entitled "Groundwater and Wellhead Protection Map, Hopkinton, RJ", dated March 22, 2004 or the most recent revision adopted by the town council, which map is on file in the records of the Town Clerk of the Town of Hopkinton.*

*Solid Waste: Any solid waste as defined in the Rhode Island Department of Environmental Management Rules and Regulations for Solid Waste Management Facilities, February 1991, and amendments thereto; and which shall include garbage,*



refuse and other discarded solid materials generated by residential, institutional, commercial, industrial and agricultural sources but does not include solids or dissolved materials in domestic sewage or sewage sludge, nor does it include hazardous waste. Solid waste shall also include non-hazardous liquid, semi-solid and containerized gaseous waste.

*Underground Storage Tank (UST): Any one or more combinations of tanks (including underground pipes connected thereto) used to contain petroleum or other hazardous material and which is located wholly or partly beneath the surface of the ground.*

*Wellhead Protection Area: The critical area surrounding a community water system well or non-transient non-community water system well through which water will move toward and reach such wells, as depicted on that certain map titled "The Groundwater and Wellhead Protection Map, Hopkinton, RI", dated March 22, 2004 or the most recent revision adopted by the town council, which map is on file in the records of the Town Clerk of the Town of Hopkinton.*

*Zone of Saturation: That subsurface area below the water table where all pore spaces between gravel and soil particles and all bedrock fractures are filled with water.*

*Zoning maps. Add subsection (b):*

*(b) The map entitled: "Groundwater and Wellhead Protection Map, Hopkinton, RI", dated March 22, 2004 or the most recent revision adopted by the Town Council, which map is on file in the records of the Town Clerk of the Town of Hopkinton and which is adopted and made a part of this ordinance. The boundary lines of the primary and secondary overlay districts are intended and are to be interpreted to be based on physical features of the land and not to follow the boundary lines of existing lots of record and the centerline of roadways*

Said Groundwater and Wellhead Protection Map is attached and made part of this record.

Amend Section 5. District Use Regulations as follows:

*Section 5. District use regulations.*

The following District Use Table establishes in each district those uses permitted and those uses permitted by special-use permit or by aquifer protection permit. All uses not so permitted in a district are prohibited therein. Except for those uses and activities specifically identified in Sub-Section 5 a. of this ordinance, which follows below, any accessory use customarily incident to a use permitted in a district and located on the same lot shall be permitted; any accessory use incident to a use permitted in a district by special use permit or aquifer protection permit and located on the same lot shall be permitted upon the grant of the special-use permit if, aquifer protection permit unless limited by special condition attached to the grant of the special-use permit or aquifer protection permit. It shall be the responsibility of the zoning enforcement officer to determine which use classification a proposed use is governed by. (Ch. 134, § 4, 12-19-94)

Said District Use Table is attached and made part of this record.

*Add new Sub-Section 5 a. Prohibitions, additional prohibitions to include the following:*

*Section 5a. Prohibitions. The following are prohibited:*

- 1. Residential Underground Storage Tank (UST) installations.*
- 2. Non-residential UST installations in a Primary Protection Zone District. Non-residential UST installations (except those regulated by RJDFJJ) are permitted in the Secondary Protection Zone by Aquifer Protection Permit only.*
- 3. In the Primary Protection Zone District, any discharge of liquid wastes and waste water containing suspended particles on site to the subsurface through septic systems, dry wells, galleys, or other means, except for the discharge of sanitary waste in accordance with an approved RJDEM individual septic disposal system. Such discharge is permissible in the Secondary Protection Zone by Aquifer Protection Permit only. RJDEM approved activities associated with the subsurface disposal of sewage from individual sewage disposal systems are permitted. This shall not include the discharge of storm-water runoff into the subsurface by drywells, galleys, or other means, nor shall this include the retention and use of*



conservation commission.

(B) Planning board and conservation commission recommendations. The zoning board, at its next meeting after receipt of a complete application for an Aquifer Protection Permit may request that the planning board and/or town planner and the conservation commission report their findings and recommendations, including a statement on the general consistency of the application with the goals and purposes of the comprehensive plan of the town, writing to the zoning board within thirty (30) days of the zoning board request.

(C) Notice and hearing. The zoning board shall hold a public hearing on any application for an Aquifer Protection Permit in an expeditious manner after receipt in proper form of a complete application, and shall give public notice thereof of at least fourteen (14) days prior to the date of the hearing in a newspaper of general circulation in the town. Notice of hearing shall be served by certified mail, return receipt requested, to the applicant and to all those owners of real property or other entities which would require notice under R.I.G.L. chapter 42-24-53, at least fourteen (14) days prior to the date of the hearing. Said notice shall include the street address of the property for which the Aquifer Protection Permit is sought. The cost of notification shall be borne by the applicant.

(D) Findings of zoning board. In granting an Aquifer Protection Permit, the zoning board shall be satisfied by legally competent evidence that the proposed use will not result in concentrations of pollutants in the groundwater that will adversely affect the groundwater as a source of potable water or its classification as GM (suitable for public or private drinking water use without treatment) or GA (may be suitable for public or private drinking water use without treatment) as promulgated in the RIDEAL "Rules and Regulations for Groundwater Quality" in accordance with Chapter 46-13.1 of the General Laws of Rhode Island, 1956, as amended.

(E) Maintenance. All facilities and structures constructed in accordance with an Aquifer Protection Permit shall be maintained by the owner or operator to assure their ability to function as designed. Failure to properly maintain such facilities and structures shall constitute a violation of this ordinance and is subject to enforcement action of the town.

Amend and add a Section Best Management Practice Work Plan Submittal, A-U as follows:

**Section \_\_\_\_ • Best Management Practice Work Plan Submittal**

Where an Aquifer Protection Permit is required and the proposed use involves hazardous materials or if State or Federal permit, approval or license is required because the use involves hazardous materials including hazardous waste, a Best Management Practice work plan must be submitted that:

(A) Includes three copies of any required State or Federal permits, approvals or licenses required for the proposed use along with citation of the statute, law, ordinance or regulation requiring these documents.

(B) Lists all chemicals, pesticides, petroleum products and other hazardous materials and the maximum quantity to be used, stored, transferred or generated on the premises at any one time accompanied by a description of measures proposed to protect them from vandalism, corrosion, leakage, malfunction or spill including spill prevention and clean-up procedures and other countermeasures.

(C) Describes all hazardous or potentially hazardous wastes to be generated and the system to be used that will collect, store, treat (if necessary) and subsequently dispose, off-site, of all waste products other than sanitary sewage. Include spill prevention and clean-up procedures to be used.

(D) States the proposed measures to mitigate any potential adverse impact from hazardous materials or petroleum products spillage on the groundwater or structures feeding the groundwater.

(E) Provides a description of the method by which local, state and federal authorities will be notified in the event of an accident or spill of a hazardous material or petroleum product that will have a potentially adverse impact on the environment.

(F) Shows a plan prepared by the appropriate licensed professional(s) in accordance with R.I.G.L. with the dimensions, elevations and nature of the proposed use; the amount, area and

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type of proposed fill, area and nature of proposed grading; proposed drainage facilities; proposed roads, water and other utilities; and specifications for building construction and material.

(G) Shows a plan prepared by the appropriate licensed professional(s) in accordance with R.J.G.L. to include all relevant existing features within two hundred feet of the property line including but not limited to the Primary Protection Zone boundary, wetlands or water bodies, vegetation, existing development and contours at two foot intervals. Off site conditions and features may be taken from existing sources of information and referenced on the plan.

(H) Includes a soils report by a Professional Soils Scientist registered with the Society of Soils Scientists of Southern New England or a Site Evaluator licensed by the Department of Environmental Management, to include the depth to groundwater and soil strata description to ten (10) feet.

(I) Includes a report by a groundwater hydrologist on the present surface and groundwater water quality conditions, the rate and direction of groundwater movement and a description of the analysis method used; and the potential impact to ground and surface waters from the proposed use including spills. Such report shall also include the cumulative impacts of discharge pollutants over an extended period of time and a description of mitigation measures to include identification of any irreversible alteration of natural features as a result of the proposed action and the proposed rate and volume of groundwater withdrawal and the potential cumulative impacts of groundwater withdrawal.

(J) Provides compelling evidence of qualified professional supervision in the design, installation, operation and maintenance of facilities or containers to be used for the handling, storage, generation and disposal of hazardous materials and petroleum products

(K) Requires that indoor storage of hazardous materials and petroleum products shall be within a containment structure that meets the following standards:

(1) Constructed in such a manner as to prevent the release of hazardous materials and petroleum products and constructed of such materials that are impermeable and impervious to the materials being contained

(2) The containment structure shall, at minimum, be designed to contain the following volumes:

(a) For above ground storage tanks greater than 10% of the capacity of the largest tank

(b) For individual containers, e.g., drums greater than 10% of the total volume of all the containers or the volume of the largest container, whichever is greater.

(L) Requires that outdoor storage of hazardous materials and petroleum products shall be within a containment structure that meets the following standards:

(1) Impermeable base and surrounding dike that is compatible with the material being contained.

(2) The containment structure shall, at minimum, be designed to contain the following volumes:

i. For above ground storage tanks greater than 100% of the capacity of the largest tank.

ii. For individual containers, e.g., drums greater than 10% of the total volume of all the containers or the volume of the largest container, whichever is greater.

(3) The containment structure shall be protected by a roof and adequate sides to prevent entry of precipitation.

(M) Requires that drums and storage containers be fitted with secure lids at all times to prevent spills and leaks; be stored as full as possible to prevent vapors and the chance of explosion; have drip pans under spigots and that the operator control and absorb material spilled from the tops of the drum.

(N) Requires storage areas to be inspected weekly looking for leaks and for deterioration caused by corrosion or other factors, recording the inspections in an inspection log and filling out a weekly Hazardous Material Storage Area Inspection Checklist form as set forth in appendix G hereof (said form and the data and/or evidence required thereby are incorporated herein and made a part of this ordinance) during the inspection; keep these records for at least three years from the date of the inspection and make these records available to the

Zoning Enforcement Officer. *If storage includes hazardous waste for which a weekly Hazardous Waste Storage Area Inspection Checklist form is required to be recorded (refer to Section 2.0 of the Hazardous Waste Compliance Workbook for Rhode Island Generators, RIDFM Office of Technical and Customer Assistance dated March 2002, or the most recent revisions thereto), keep these records as required by RIDEM and make these records available to the Zoning Enforcement Officer.*

*(O) Requires containers and tanks to be clearly labeled as to contents.*

*(P) Requires hazardous materials generation and storage areas to be clearly marked to indicate the presence of hazardous materials. Material Safety Data Sheets (MSDS) shall be kept for all hazardous materials near the point of generation and storage for ready access by employees, Inspectors, etc.*

*(Q) Requires venting systems for evaporation or other type of discharge to the atmosphere of hazardous materials to be designed with a recovery system to prevent the release of contaminated condensate or drippage.*

*(R) Requires areas used for loading and transferring hazardous materials and petroleum products to have an impermeable surface and a dike to contain spills or leaks.*

*(S) Requires a new Aquifer Protection Permit application when additions are proposed to the list of hazardous materials and petroleum products; when changes are proposed to the methods of handling, storage and disposal of hazardous materials and petroleum products; when there is a proposed increase in the maximum quantities of hazardous materials and petroleum products involved; or when there is potential to significantly increase the impact on the groundwater.*

*(T) Requires adequate quantity of spill containment materials be maintained on hand, document training in the use and prevention of spills and releases and a written plan of use and disposal for these materials for all potential spills or releases.*

*(U) Address fire protection systems needed for flammable or combustible materials stored in these areas, i.e. to prevent catastrophic fire and release of materials resulting from the fire.*

Amend Section 23. Powers and duties of the zoning board as follows:

Section 23.(BX3) ~~be~~ concurring vote of four (4) of the five (5) members of the zoning board of review sitting at a hearing shall be required to decide in favor of an applicant on any matter within the discretion of the board upon which it is required to pass under this ordinance, including variances, special-use permits and aquifer protection permit.



Add an Appendix G. Application & Checklist to Zoning Board of Review for Aquifer Protection Permit plus Weekly Hazardous Material Storage Area Inspection Checklist as follows:

*APPENDIX G*

*APPLICATION & CHECKLIST TO*

*ZONING BOARD OF REVIEW*

*FOR:*

*AQUIFER PROTECTION PERMIT*

*PLUS*

*WEEKLY HAZARDOUS MATERIAL STORAGE AREA INSPECTION*  
*CHECKLIST*



detention of storm-water runoff by open basins provided that appropriate oil separation methods are utilized where applicable.

- if. Land disposal of sewage sludge and septage in the Primary Protection Zone. Such disposal is permissible in the Secondary Protection Zone District by Aquifer Protection Permit only.
5. Uncovered Storage of road salt and deicing material, without an impermeable storage and handling surface that will prevent contaminated runoff.
6. In the Primary Protection Zone, washing of motor vehicles, except incidental to residential uses, or in a car wash that has an Aquifer Protection Permit, uses recycled water, and does not discharge to the environment.
7. Outdoor storage of hazardous materials, unless the Fire District Chief has determined that indoor storage would create a fire hazard in which case an Aquifer Protection Permit shall be required.
8. In the Primary Protection Zone, storage of petroleum or liquid refined petroleum products or their transfer through piping systems, except within a building (or, if the Fire District Chief has determined that indoor storage would create a fire hazard, in an accessory covered containment structure) as heating fuel for that building. Such storage of heating fuel shall not exceed 5(5) gallons, except for storage regulated and permitted by RiDEM.
9. In the Primary Protection Zone, parking, for more than two hours in any twenty-four hour period, of any vehicle used for storage or delivery of fuel, oil, gasoline, or other liquid petroleum products or hazardous material.
10. Installation of interior floor drains designed to permit fluid from any interior space to be discharged into or onto the ground, except for sump pumps and French drains used solely to accumulate and discharge groundwater from a residence (or, by Aquifer Protection Permit only, from a non-residential interior space). Provided, that such drains may be permitted, by Aquifer Protection Permit only, if designed to empty into an above ground storage tank capable of completely containing anticipated flows. Such tanks shall be subject to containment provisions as provided in this ordinance.
11. Uncovered storage of solid wastes and storage of solid waste in covered dumpsters with drain plugs removed.
12. Washing or rinsing of dumpsters in the Primary Protection Zone and in the Secondary Protection Zone except by Aquifer Protection Permit and the operation does not discharge to the environment.

Amend and add a Section \_\_\_\_\_. Aquifer Protection Permits as follows:

**Section \_\_\_\_\_. Aquifer Protection Permits.**

(A) Application. An application for an Aquifer Protection Permit may be made by any person, group, agency or corporation with a legal interest in the land to which it applies by filing in the office of the zoning enforcement officer an application describing the request.

The form and such data and/or evidence which comprises such an application is set forth in the appendix C hereof. Said form and the data and/or evidence required thereby are incorporated herein and made a part of this ordinance.

Upon receipt of an application wherein the applicant seeks a waiver from the requirement of furnishing any item of data and/or evidence as required in the subsections hereof, the zoning enforcement officer shall immediately transmit said application and waiver request to the zoning board, which shall hear and decide the waiver request at a regularly scheduled or special meeting of the zoning board. In the event the zoning board grants such a waiver request, the application, being otherwise in conformity with these subsections, shall be deemed complete. In the event the zoning board does not grant the waiver request in full, the application shall not be deemed complete until all data and/or evidence required by said Appendix for which a waiver has not been granted is filed in the office of the zoning enforcement officer.

Upon receipt of the complete application, the zoning enforcement officer shall immediately transmit it to the zoning board and shall transmit a copy to the planning board and to the

**APPLICATION CHECKLIST FOR:  
AQUIFER PROTECTION PERMIT**

The application for an Aquifer Protection Permit to the Zoning Board of Review must be accompanied with the following information:

- A. *Four (4) copies of a site plan prepared by, and signed and stamped by, a professional engineer or professional land surveyor at a scale of no less than one (1) inch = forty (40) feet clearly showing:*
- name and address of property owner(s)*
  - date, north arrow, graphic scale, lot dimensions and area*
  - zoning district(s) and setbacks*
  - existing and proposed structures, and their relationship & distances from lot boundary lines*
  - existing and proposed parking areas and walkways-existing and proposed landscaping, as it relates to the request*
  - existing streets, 911 address, wells, septic system*
  - list of names and addresses of all property owners within 200 feet of subject property*
  - Best Management Practice work-plan where required*
  - any peculiar site conditions or features*
- B. *Four (4) copies of a separate map indicating all property owners within 200 feet of the subject property and/or all those property owners and entities which require notice under Section 45-24-53 R.I.G.L., also depicting any zoning district boundary and use of all neighboring properties.*
- C. *A soil erosion and storm-water control plan with supporting calculations based standards approved by the USDA Soil Conservation Service and in conformity with the RI Erosion and Sediment Control Handbook.*
- D. *A letter from a biologist indicating that there are no freshwater wetlands on or in proximity to the site such that the application is regulated by the R.I. Freshwater Wetlands Act. In those instances where the application is regulated by the R.I. Freshwater Wetlands Act, a physical alteration permit issued by the R.I. Department of Environmental Management, and where applicable, the U.S. Army Corp of Engineers, shall be required*
- E. *Location of existing septic system. Where construction requires approval by R.I. DFM-Division of Land Resources for an ISDS (individual sewage disposal system) or change of use permit for the proposed activity, attach a copy to the application.*
- F. *Traffic Study addressing the potential impacts of the proposed activity.*
- G. *On a separate site plan, indicate existing and proposed topography at two (2) foot intervals.*
- H. *Provide evidence that the proposed water supply has sufficient supply to support the proposed activity and is of drinking water quality.*

*Note: Upon the applicant's request, the Zoning Board of Review, in appropriate circumstances, may waive the provision of any items of information listed above. The specific reasons for the request of waiver of checklist items must be described on the application. The waiver(s) requested must be approved by the Zoning Board before an application without all the items listed above will be deemed complete.*

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**TOWN OF HOPKINTON  
ZONING BOARD OF REVIEW**

To: **Hopkinton Zoning Board of Review**

Town Hall  
1 Townhouse Road  
Hopkinton, RJ02833

Ladies/Gentlemen:

The undersigned hereby applies to the Hopkinton Zoning Board of Review for an AQUIFER PROTECTION PERMIT in the application of the provisions of regulations of the Hopkinton Zoning Ordinance affecting the following described premises in the manner and on the terms hereinafter set forth.

NAMES:

Applicant: \_\_\_\_\_ Address: \_\_\_\_\_  
 \_\_\_\_\_ Owner: \_\_\_\_\_ Address: \_\_\_\_\_  
 \_\_\_\_\_ Lessee: \_\_\_\_\_ Address: \_\_\_\_\_  
 \_\_\_\_\_

1. Filing Instructions:

- a. The original application and eleven (11) copies, either typed or legibly printed, must be filed with the Town Clerk's Office in accordance with the minimum time required to post adequate notice.
- b. A filing fee in the amount of \$7500 shall accompany an application to the Zoning Board of Review to cover the costs of legal advertisement and processing. In addition to the \$75.00 fee, the applicant shall also be responsible for all costs incurred by the town in the course of review of this application, including stenographic services and legal advertisement, and will be billed when the final costs have been determined.
- c. All required checklist items for an AQUIFER PROTECTION PERMIT must accompany the application in order to be considered a complete application.

2. Location of Premises: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ (Name of Street or Road)

3. Plat(s) \_\_\_\_\_ Lot(s) \_\_\_\_\_ Zoning District \_\_\_\_\_  
 91JA ess \_\_\_\_\_

4. Aquifer Protection Zone(s) \_\_\_\_\_

5. Dimensions of Lot: (Frontage)feet by (Depth)feet Area (Square Ft. or Acres) \_\_\_\_\_

6. How long have you owned the premises? \_\_\_\_\_

State year which lot(s) were platted and recorded: \_\_\_\_\_

7. State present use of premises: \_\_\_\_\_

8. State proposed use of premises: \_\_\_\_\_

9. Please give the size (in feet) of all existing buildings and accessory structures: \_\_\_\_\_

10. Have you submitted plans to the Zoning Enforcement Officer? \_\_\_\_\_

\_\_\_\_\_ Has a permit been refused? \_\_\_\_\_

\_\_\_\_\_ If a permit has been refused, attach a copy of the denial, in writing.

11. Please give the size (in feet) of all proposed buildings and accessory structures that will support the proposed use: \_\_\_\_\_  
 \_\_\_\_\_

12. Please describe any planned alterations to support the proposed use \_\_\_\_\_



13. Will the proposed use involve hazardous materials or require State or Federal permit, approval or license? Yes \_\_\_\_\_ No \_\_\_\_\_

if Yes, explain: \_\_\_\_\_

14. Indicate the provision or regulation of the Hopkinton Zoning Ordinance under which application for AQUIFER PROTECTION PERMIT is made: — — — — —

15. Indicate the grounds for which AQUIFER PROTECTION PERMIT is sought:

\_\_\_\_\_  
\_\_\_\_\_

16. Request for Waiver: Please indicate the checklist items that are requested to be waived by the Zoning Board and the reasons for the request: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Respectfully submitted,

gnawre \_\_\_\_\_

gnawre \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Phone# \_\_\_\_\_



TOWN OF HOPKINTON, RI

WEEKLY HAZARDOUS MATERIAL STORAGE AREA INSPECTION  
CHECKLIST

Business Name: \_\_\_\_\_

Name/Title of Inspector: \_\_\_\_\_ Signature: \_\_\_\_\_

\_\_\_\_\_ Inspection Date: \_\_\_\_\_ Time: \_\_\_\_\_ Keep for 3 Years, Until: \_\_\_\_\_  
\_\_\_\_\_

Area(s) Inspected: \_\_\_\_\_

\_\_\_\_\_ Above Ground Storage Tanks

\_\_\_\_\_ Individual Containers

Number of \_\_\_\_\_

Number of Full \_\_\_\_\_

Are They All Closed? \_\_\_\_\_

Condition of Tanks/Containers: \_\_\_\_\_

(Do they show signs of leaking? Is there deterioration due to rust? Have they been damaged?)

Condition/Integrity of Containment Area: \_\_\_\_\_

(Will the area effectively contain a spill or leakage? Are berms/containment devices in good condition?)

Is there at least three feet of clear aisle space between rows of containers? \_\_\_\_\_

Are ground wires in place for ignitable materials? \_\_\_\_\_

(Note condition of wires as well.)

Condition/Integrity of venting system recovery systems \_\_\_\_\_

(Will it prevent the release of contaminated condensate or drippage?)

Is there evidence of spilled/leaked material? \_\_\_\_\_ Describe: \_\_\_\_\_

\_\_\_\_\_

List remedial action taken: \_\_\_\_\_

(Example: Spill was fully contained; spill was cleaned and the drip pan was replaced)




Are container, tank, generation and storage area labeling requirements satisfied? — — — — —

Additional remarks or actions to be taken: — — — — —  
—

\_\_\_\_\_

Record this inspection in the inspection log. It should be kept for at least 3 years.

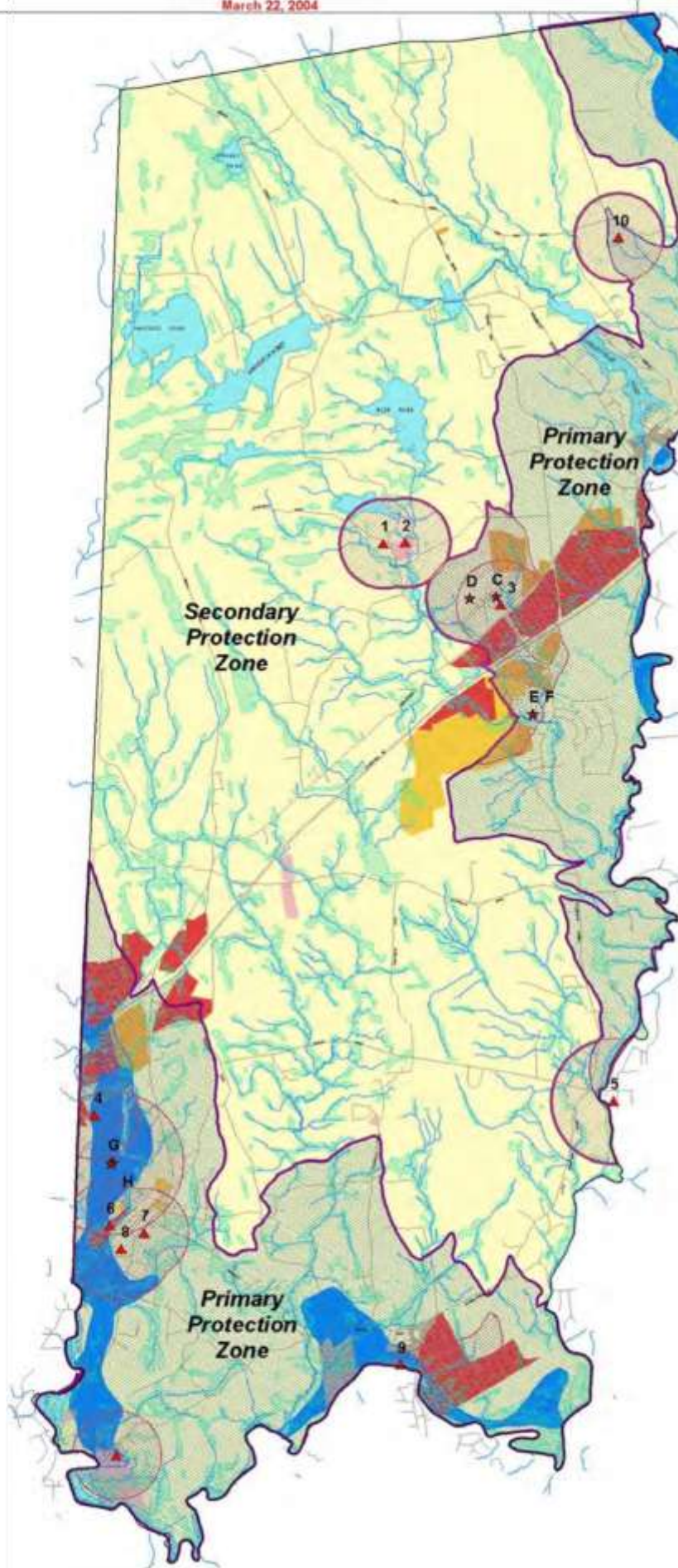
Adopted: March 22, 2004

ATTEST   
Elizabeth J. Cook-Martin  
Town Clerk

# Groundwater and Wellhead Protection Map Hopkinton, RI

**APPROVED**

March 22, 2004



## Primary Protection Zone

EJ Wellhead Protection Area •

Recharge Area "

— Aquifer •

•>HJ Community System Wells •

•- Non-Transient, Non-Community •  
System Wells

## Secondary Protection Zone

### Other Features

1m Lakes and Ponds •"

Wetlands"

Streams

•" Roads

•"

### Zoning

Commercial

Commercial Special

Manufacturing

Manufacturing Special

Neighborhood Business

Neighborhood business Special

Residential

LABEL	WELL NAME	WELL	SOURCE ID
A	Richmond Water Supply Board	Well #2	1000040-02
B	Richmond Water Supply Board	Well #3	1000040-03
C	Quonset Cliffs Water Assoc	Well #4	1000043-04
D	Quonset Cliffs Water Assoc	Well #5	1000043-05
E	Lindbrook Water Company	Well #6	1000046-06
F	Lindbrook Water Company	Well #7	1000046-07
G	Bethel Village	Well #8	1000046-08
H	Bethel Village	Well #9	1000046-09
I	Greene Electric Corp. Industrial Sup	Well #10	1000046-10
J	Greene Electric Corp. Warehouse Bldg	Well #11	1000046-11
K	Wood River Health Services	Well #12	1000046-12
L	Trinity Lutheran Free School	Well #13	1000046-13
M	Charbert Div. of WPA	Well #14	1000046-14
N	Adams Line & Sons - Green Mill	Well #15	1000046-15
O	Crundall House Senior Citizens' Cent	Well #16	1000046-16
P	Adams Elementary School	Well #17	1000046-17
Q	Bradford Dyeing Assoc	Well #18	1000046-18
R	Ray Dee Design	Well #19	1000046-19

Data Source:

• Rhode Island Department of Environmental Management  
• Hopkinton GIS Tax Assessor

	DISTRICT USE TABLE						
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
0 Residential							
01 one family	P	P	P	N	N	P	P
02 two family	P	N	S	N	N	P	P
03 multi family	P	N	S	N	N	P	P
04 Bed & Breakfast	S	S	S	S	N	P	P
05 Hotel & Motel	N	N	N	P	S	A	P
06 Assisted housing & Nursing homes	S	S	S	S	N	A	P
07 Accessory Family Dwelling unit	S	S	S	S	N	P	P
08 Customary Home Occupation	P	P	P	P	N	P	P
09 Community Residences	P	P	P	N	N	P	P
010 Family Day Care Homes	P	P	P	N	N	P	P
011 Halfway House	N	N	N	N	N	P	P
1 Extractive & Industrial Nonmanufacturing							
10 Agriculture, including:							
101 Field Crops	P	P	P	P	S	A	P
102 Fruit, Tree, Nut & Vegetable Farms	P	P	P	P	S	A	P
103 Livestock Farms	P	N	N	P	S	A	A
104 General Farms	P	P	P	P	S	A	P
105 Noncommercial Farms	P	P	P	P	S	P	P
11 Agricultural Services, Hunting & Trapping	P	P	P	P	P	P	P
12 Forestry							
121 Timber Tracts	P	P	P	P	P	P	P
122 Forest Nurseries & Tree Seed Gathering and Extracting	P	S	N	P	P	P	P
123 Forestry Services	P	P	P	P	P	P	P
13 Fisheries							
131 Finfish	N	N	N	P	P	A	A
132 Shellfish	N	N	N	P	P	A	A
14 Mining							
141 Dimension Stone	N	N	N	N	S	N	A
142 Crushed & Broken Stone	N	N	N	N	S	N	A
143 Commercial Soil, Sand & Gravel	N	N	N	N	S	N	A
15 Metals and Minerals Wholesalers							
151 Coal & Other Minerals	N	N	N	S	S	N	A
152 Petroleum Bulk Stations	N	N	N	N	S	N	A
A = Aquifer Protection Permit    N = Not permitted    P = Permitted by right    S = Special Use Permit							

		<b>DISTRICT USE TABLE</b>					
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
16 Construction & General Contracting							
160 General Contracting Office & Equipment Storage	N	N	N	S	P	A	P
161 Heavy Construction , inc. excavation Equipment	N	N	N	S	P	A	P
162 Plumbing, Heating & A/C	N	N	N	S	P	A	P
163 Painting, Paper Hanging & Decorati	N	N	N	S	P	A	P
164 Electrical Work	N	N	N	S	P	P	P
165 Masonry & Stonework	N	N	N	S	P	A	P
166 Carpentry & Wood Floorwork	N	N	N	S	P	A	P
167 Roofing & Sheetmetal Work	N	N	N	S	P	A	P
168 Concrete Work	N	N	N	S	P	A	P
169 Water Well Drilling	N	N	N	S	P	A	P
1691 Office for uses #160-169, not including storage & Supplies	N	N	S	P	P	P	P
17 Misc. Special Trade Contractors							
171 Structural Steel Erection	N	N	N	N	S	A	P
172 Ornamental Metal Work	N	N	N	N	S	A	P
173 Glass & Glazing Work	N	N	N	N	S	P	P
174 Excavating & Foundation Work	N	N	N	N	S	A	P
175 Wrecking & Demolition Work	N	N	N	N	S	N	A
18 Junkyards							
181 Junkyards & scrap wholesaling	N	N	N	N	S	N	A
182 Recycling Facility, storage Only	N	N	N	N	S	N	A
2 Manufacturing							
20 Food and Kindred Products							
201 Meat Products	N	N	N	N	S	A	P
202 Dairy Products	N	N	N	N	S	A	P
203 Canning & Preserving Foods	N	N	N	N	S	P	P
204 Grain Mill Products	N	N	N	N	S	P	P
205 Bakery Products	N	N	N	N	S	P	P
206 Sugar	N	N	N	N	S	P	P
207 Confectionary & Related Products	N	N	N	N	S	P	P
208 Beverage Industries	N	N	N	N	S	A	P
209 Rendering & Refining of Fats & Oils	N	N	N	N	N	A	P
22 Textile Mill Products							
221 Mill Products	N	N	N	N	P	N	A
222 Drying & finishing Textiles	N	N	N	N	P	N	A
A = Aquifer Protection Permit		N = Not permitted		P = Permitted by right		S = Special Use Permit	

		<b>DISTRICT USE TABLE</b>					
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
223 Floor Covering Mills	N	N	N	N	P	N	A
224 Yarn & Thread Mills	N	N	N	N	P	N	A
23 Apparel & Other Finished Products from Fabric	N	N	N	N	P	P	P
24 Lumber & Wood Products except Furniture							
241 Sawmills & Planing Mills	N	N	N	N	P	A	P
242 Millwork & Prefabricated Structural Wood Products	N	N	N	N	P	A	P
243 Wooden Containers	N	N	N	N	P	P	P
25 Furniture & Furnishing Manufacturing	N	N	N	N	P	A	P
26 Paperboard & Paper Manufacturing							
261 Paper Manufacturing (not including pulp mills)	N	N	N	N	P	A	A
262 Manufactured Products from Paper & Paperboard	N	N	N	N	P	A	P
27 Printing & Publishing	N	N	N	S	P	A	A
28 Chemicals & Pharmaceuticals	N	N	N	N	S	A	A
29 Petroleum Refining & Related Industries	N	N	N	N	N	N	A
<b>3 Manufacturing</b>							
30 Rubber & Miscellaneous Plastics							
301 Tires & Tubing	N	N	N	N	N	N	A
302 Rubber Footware	N	N	N	N	S	A	A
303 Reclaimed Rubber	N	N	N	N	S	N	A
304 Fabricated Rubber Products not elsewhere classified	N	N	N	N	N	N	A
305 Miscellaneous Plastics Products	N	N	N	N	S	A	A
31 Leather & Leather Products							
311 Leather Tanning & finishing	N	N	N	N	N	N	A
312 Industrial Leather Belts & Packing	N	N	N	S	P	A	P
313 Boot & Shoe Cut Stock	N	N	N	S	P	A	P
314 Footware, except Rubber	N	N	N	S	P	A	P
315 Gloves & Mittens	N	N	N	S	P	A	P
A = Aquifer Protection Permit    N = Not permitted    P = Permitted by right    S = Special Use Permit							

		<b>DISTRICT USE TABLE</b>					
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
316 Luggage	N	N	N	S	P	A	P
317 Handbags & Other Personal Leather Goods	N	N	N	S	P	A	P
32 Stone, Clay, & Glass Products							
321 Flat Glass	N	N	N	N	N	N	A
322 Glass & Glassware, Pressed or Blown	N	N	S	S	P	A	P
323 Glass Products Made of Purchased Glass	N	N	P	S	P	A	P
324 Cement, Hydraulic	N	N	N	N	N	N	A
325 Structural Clay Products	N	N	S	S	S	A	P
326 Pottery & Related Products	N	N	S	S	S	A	P
327 Concrete, Gypsum & Plaster	N	N	N	N	N	A	P
3272 Concrete Products, including Block & Brick	N	N	N	N	S	A	A
3273 Ready-Mix Concrete	N	N	N	N	S	N	A
3274 Lime	N	N	N	N	N	A	P
3275 Gypsum Products (Plaster)	N	N	N	N	N	A	P
328 Cut Stone & Stone Products	N	N	N	S	P	A	P
329 Abrasive, Asbestos & Misc. Nonmetallic Mineral	N	N	N	N	N	N	A
33 Primary Metal Industries	N	N	N	N	N	N	A
34 Fabricated Metal Products, except Ordinance, Machinery & Transportation Equipment							
341 Fabricated Metal Products, except Ordinance, Machinery & Transportation Equipment	N	N	N	S	P	N	A
342 Coating & Engraving	N	N	N	N	P	N	A
35 Machinery, except Electrical	N	N	N	N	S	N	A
36 Electrical & Electric Machinery, Equipment & Supplies except Batteries							
361 Electrical & Electric Machinery, Equipment & Supplies except Batteries	N	N	N	N	S	N	A
362 Electrical Batteries	N	N	N	N	N	N	A
37 Transportation Equipment	N	N	N	N	S	N	A
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		<b>DISTRICT USE TABLE</b>					
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
38 Professional, Scientific, & Controlling							
Instruments; Photo & Optical Goods,							
Watches & Clocks							
	N	N	N	N	P	A	A
39 Misc. Manufacturing Industries							
391 Jewelry & Silverware							
	N	N	S	S	P	N	A
392 Metal Plating							
	N	N	N	N	N	N	A
393 Toys & Amusements, Sporting &							
Athletic Goods & Musical Instruments							
	N	N	S	S	P	A	P
394 Pens, Pencils & Office and Artists							
Materials							
	N	N	N	N	P	A	P
395 Costume Jewelry, Costume Novelties,							
Buttons & Misc. Notions, except							
Precious Metals							
	N	N	S	S	P	A	P
396 Misc. Manufacturing							
3961 Matches							
	N	N	N	N	N	A	P
3962 Lamp Shades							
	N	N	S	S	P	A	P
3963 Morticians Goods							
	N	N	N	N	P	A	P
3964 Furs, Dressed & dyed							
	N	N	N	N	S	N	A
3965 Signs & Advertising Displays							
	N	N	S	S	P	A	A
3966 Umbrellas, Parasols & Canes							
	N	N	S	S	P	A	P
399 Ordinance & Accessories							
	N	N	N	N	N	A	A
<b>4 Transportation, Communications &amp; Utilities</b>							
40 Railroad Transportation							
	N	N	N	S	S	A	A
41 Local & Suburban Transit and Passenger							
Transportation and Related Service							
Facilities							
411 Local & Suburban							
	N	N	N	P	P	A	A
412 Taxicabs							
	N	N	N	P	P	A	A
413 Passenger Transit Charter Srvcs							
	N	N	N	P	P	A	A
4141 School Bus (storage)							
	P	P	P	P	P	P	P
4142 School Buses (storage)							
	N	N	N	P	P	A	A
415 Terminal & Services Facilities							
for Motor Vehicle Passenger Transit							
	N	N	N	P	P	N	A
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		<b>DISTRICT USE TABLE</b>					
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
42 Trucking Transportation & Short Term Truck Storage							
421 Local & Long Distant Trucking without storage	N	N	N	S	P	A	A
422 Local & Long Distance Trucking with storage	N	N	N	N	P	A	A
45 Air Transportation	N	N	N	N	N	N	A
46 Warehousing, Public & Private							
461 Farm Product Warehousing	N	N	N	P	P	A	P
462 Refrigerated Warehousing	N	N	N	S	P	A	P
463 Food Lockers, with & without food Preparation Facilities	N	N	N	S	P	P	P
464 Household Goods Warehousing	N	N	N	S	P	A	P
465 General Warehousing	N	N	N	S	P	A	P
48 Utilities, Communications & Sanitary Services							
481 Communication, including Towers & Antenna	S	N	S	S	S	P	P
482 Fuel & Power (for use or sale off-site)	N	N	N	N	N	A	A
483 Water Supply	P	P	P	P	P	P	P
484 Sanitary Sewage Disposal Srvc	S	S	S	S	S	A	P
485 Refuse Disposal, Landfills & Incineration	N	N	N	N	N	N	N
49 Customs Brokers & Freight Forwarders	N	N	S	N	S	P	P
<b>5 Commercial</b>							
50 Wholesale							
501 Motor Vehicles & Auto Equipment	N	N	N	S	P	A	P
502 Drugs, Chemicals & Allied Equipment	N	N	N	P	P	A	A
503 Dry Goods & Apparel	N	N	N	P	P	P	P
504 Groceries & Related Products	N	N	N	P	P	P	P
505 Farm Products-Raw Materials	N	N	N	N	N	A	P
506 Electrical Goods/Electronics	N	N	N	P	P	P	P
507 Hardware, Plumbing & Heating A/C & Refrigeration Equipment & Supplies	N	N	N	S	P	A	P
508 Machinery, Equipment & Supplies	N	N	N	S	P	A	P
509 Tobacco & Tobacco Products	N	N	N	P	P	A	P
510 Beer, Wine & Distilled Alcoholic Bvg's	N	N	N	P	P	A	P
511 Paper & Paper Products	N	N	N	S	S	P	P
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	DISTRICT USE TABLE						
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
512 Furniture & Home Furnishings	N	N	N	P	P	P	P
513 Lumber & Construction Materials	N	N	N	S	S	A	P
52 Retail Trade-Building Materials, Hardware & Farm Equipment							
521 Lumber & Other Bldg Materials	N	N	N	P	S	A	P
522 Heating & Plumbing Materials	N	N	N	P	S	A	P
523 Paint, Glass & Wallpaper Stores	N	N	N	P	S	A	P
524 Electrical/Electric Supply Stores	N	N	N	P	S	P	P
525 Hardware & Farm Equipment	N	N	N	P	S	A	P
53 Retail Trade-General Merchandise							
531 Department Stores	N	N	N	P	S	A	P
532 Mail Order Houses	N	N	N	P	S	A	P
533 Limited Price Variety Stores	N	N	N	P	S	A	P
534 Merchandise Vending & Machine	N	N	N	P	S	P	P
535 Direct Selling Organizations	N	N	N	P	S	P	P
536 Dry Goods & General Merchandise	N	N	S	P	S	P	P
537 General Stores	N	N	S	P	S	P	P
538 Outlet/Mall/Plaza	N	N	N	P	S	P	P
54 Retail Trade- Food							
541 Grocery Stores & Deli	N	N	P	P	S	P	P
542 Meat & Fish Markets	N	N	P	P	S	P	P
543 Fruit & Vegetable Stores	N	N	P	P	S	P	P
544 Candy, Nut & Confectionery Stores	N	N	P	P	S	P	P
545 Dairy Products Stores	N	N	P	P	S	P	P
546 Retail Bakeries- Manufacturing	N	N	S	P	S	P	P
547 Retail Bakeries, Non-Manufacturing	N	N	P	P	S	P	P
548 Egg & Poultry Stores	N	N	P	P	S	P	P
55 Automotive Dealers & Gas Service Stations							
551 Motor Vehicle Dealers, New & Old	N	N	N	P	S	N	A
552 Motor Vehicle, Used Only	N	N	N	P	S	N	A
553 Tire, Battery & Accessory Dealers	N	N	N	P	S	N	A
554 Gasoline Service Stations	N	N	N	P	S	N	A
555 Mobile Home Dealers, New & Used	N	N	N	P	S	N	A
556 Aircraft Dealer, New & Used & Service	N	N	N	P	S	N	A
557 Marine Dealer, New & Used & Service	N	N	N	P	S	N	A
56 Retail Trade- Apparel & Accessories	N	N	N	P	S	P	P
A = Aquifer Protection Permit    N = Not permitted    P = Permitted by right    S = Special Use Permit							

	DISTRICT USE TABLE						
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Pmry	Overlay Scndry
57 Retail Trade- Furniture, Home Furnishings & Equipment							
571 Furniture, Home Furnishings & Equipment Stores	N	N	S	P	S	P	P
572 Household Appliance Stores	N	N	S	P	S	P	P
573 Radio, Television & Music Stores	N	N	S	P	S	P	P
58 Retail Trade- Eating & Drinking Places							
581 Eating Places	N	N	S	P	S	P	P
582 Drinking Places (alcoholic beverages)	N	N	N	P	S	P	P
583 Combo Bars & Restaurants	P	S	P	P	S	P	P
59 Retail Trade- Miscellaneous Retail Stores							
591 Drug Stores	N	N	P	P	S	P	P
592 Liquor Stores	N	N	P	P	S	P	P
5931 Antique Stores	N	N	P	P	S	A	P
5932 Secondhand Clothing & Shoe	N	N	P	P	S	P	P
5933 Secondhand Furniture	N	N	P	P	S	A	P
5934 Secondhand books	N	N	P	P	S	P	P
594 Bookstores & Stationary Stores	N	N	P	P	S	P	P
595 Sporting Goods & Bicycle Shops	N	N	P	P	S	P	P
596 Farm & Garden Supply Stores	N	N	P	P	S	A	P
597 Jewelry Stores	N	N	P	P	S	P	P
598 Fuel & Ice Dealers	N	N	P	P	S	N	A
5991 Florists	N	N	P	P	S	P	P
5992 Tobacco Store	N	N	P	P	S	P	P
5993 News Dealers & News Stands	N	N	P	P	S	P	P
5994 Camera & Photo Supply Stores	N	N	P	P	S	A	P
5995 Gift, Novelty & Souvenir Shops	N	N	P	P	S	P	P
5996 Optical goods Store	N	N	P	P	S	P	P
<b>6 Personal, Business &amp; Professional Services</b>							
60 Finance, Insurance & Real Estate							
601 Credit Agencies & Other Than Banks	N	N	N	P	S	P	P
602 Security & Commodity Brokers, Dealers, Exchanges & Services	N	N	N	P	S	P	P
603 Insurance Carriers	N	N	N	P	S	P	P
604 Insurance Agents	N	N	N	P	S	P	P
605 Real Estate	N	N	N	P	S	P	P
606 Combo: Real Estate, Insurance, Loan & Law Offices	N	N	N	P	S	P	P
A = Aquifer Protection Permit    N = Not permitted    P = Permitted by right    S = Special Use Permit							

		<b>DISTRICT USE TABLE</b>					
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
607 Holding & Other Investment Co.s	N	N	N	P	S	P	P
608 Banking	N	N	N	P	S	P	P
61 Personal Services							
611 Laundries, Laundry Services & Cleaning & Dyeing Plants	N	N	N	S	S	N	A
612 Photo Studios, including Commercial	N	N	N	P	S	A	A
613 Beauty Shops	N	N	S	P	S	A	P
614 Barber Shops	N	N	S	P	S	A	P
615 Shoe Repair, Shoe Shine & Hat Cleaning Shops	N	N	S	P	S	P	P
616 Funeral Services	S	S	S	P	S	A	P
617 Crematories	N	N	N	P	S	P	P
618 Pressing, Alteration & Garment Repair	N	N	S	P	S	P	P
62 Miscellaneous Business Services							
621 Advertising	N	N	N	P	S	P	P
622 Consumer Credit, Mercantile Reporting & Adjustment & Collection Agencies	N	N	N	P	S	P	P
623 Duplicating, Blueprinting, Photo- Copying, Mailing & Steno Services	N	N	N	P	S	A	P
624 Services to Dwellings & Other Bldg	N	N	N	P	S	A	P
625 News Syndicates	N	N	N	P	S	P	P
626 Private Employment Agencies	N	N	N	P	S	P	P
627 Research, development & Testing Labs	N	N	N	P	S	A	A
628 Business & Mgt Consulting	N	N	N	P	S	P	P
629 Travel Agencies & Bureaus	N	N	S	P	P	P	P
63 Automotive Repair & Services							
631 Automobile Rentals	N	N	N	P	S	A	P
632 Automobile Parking	N	N	N	P	S	A	P
633 Automobile Repair Shops	N	N	N	P	S	N	A
634 Automobile Srvc except Repair	N	N	N	P	S	A	A
635 Trailer Rentals	P	N	N	P	S	A	P
64 Miscellaneous Repair Services							
641 Electrical/Electronic Repair Shop	N	N	S	P	S	P	P
642 Watch, Clock & Jewelry Shop	N	N	S	P	S	P	P
643 Reupholstery & Furniture Repair	N	N	S	P	S	A	P
644 Bicycle Repair	N	N	S	P	S	P	P
645 Leather Goods Repair	N	N	S	P	S	P	P
646 Locksmith & Gunsmith Shops	N	N	S	P	S	A	P
A = Aquifer Protection Permit    N = Not permitted    P = Permitted by right    S = Special Use Permit							

		<b>DISTRICT USE TABLE</b>					
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
647 Musical Instruments Repair	N	N	S	P	S	A	P
648 Repair & Related Services not Elsewhere Classified	N	N	S	P	S	A	P
65 Indoor commercial Amusement Services							
651 Dance Halls, Studios & Schools	N	N	S	P	S	P	P
652 Theatrical Producers, Bands, Orchestras & Entertainers	N	N	S	P	S	P	P
653 Bowling Alleys, Billiards & Pool	N	N	S	P	S	P	P
654 Motion Picture Production Services & Theaters	N	N	S	P	S	A	P
655 Gambling Facilities, including but not limited to: Casino, Bingo Hall, Jai Alai, etc.	N	N	N	N	N	A	P
67 Medical, Health & Legal Services	N	N	S	P	S	A	P
68 Other Professional Services							
681 Engineering & Architectural Srvc	N	N	S	P	S	P	P
682 Nonprofit Educational & Scientific Research Agencies	N	N	S	P	S	P	P
683 Accounting, Auditing & Bookkeeping	N	N	S	P	S	P	P
<b>7 Public and quasi-Public Services</b>							
70 Postal Services	S	S	S	P	P	P	P
71 Military Services	S	S	S	P	P	A	P
72 Other Federal Government	S	S	S	P	P	A	P
73 State & Local Government	S	S	S	P	P	A	P
74 Public Schools	S	S	S	P	P	A	P
75 Private Schools							
751 Private Colleges & Universities	S	S	N	N	N	A	P
752 Private Junior Colleges	S	S	N	N	N	A	P
753 Private High Schools	S	S	N	N	N	A	P
754 Private Junior High Schools	S	S	N	N	N	A	P
755 Private Elementary Schools	S	S	N	N	N	A	P
756 Private Nursery Schools	S	S	N	N	N	P	P
A = Aquifer Protection Permit    N = Not permitted    P = Permitted by right    S = Special Use Permit							

		<b>DISTRICT USE TABLE</b>					
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
757 Private Correspondence & Vocational Schools	S	S	N	N	N	A	P
76 Museums, Art Galleries, Arboreta, Libraries, Churches & Cemeteries	S	S	S	N	N	A	P
77 Hospitals, Sanatoria, Convalescent & Rest Homes							
771 General Hospitals	S	N	N	S	S	A	A
772 Mental Institutions	S	N	N	N	N	A	A
773 Special Hospitals	S	N	N	N	N	A	A
774 Sanatoria, Convalescent & Rest Homes	S	N	N	N	N	A	P
78 Nonprofit Membership Organizations	P	P	P	P	N	P	P
<b>8 Recreation</b>							
80 Outdoor Government Public Recreation							
801 Playgrounds, Playfields & Tot Lots	P	P	P	P	N	P	P
802 Major Parks (>5 acres)	P	P	P	P	N	A	P
803 Minor Parks (<5 acres)	P	P	P	P	N	P	P
804 Stadia & Fairgrounds	P	P	P	P	N	A	P
805 Campgrounds	P	P	P	P	N	A	P
806 Golf Courses	P	P	P	P	N	A	P
807 Ski & Toboggan Runs	P	P	P	P	N	A	P
808 Skating Rinks	P	P	P	P	N	A	A
811 Boating Areas	P	P	P	P	N	P	P
812 Bathing Beaches	P	P	P	P	N	P	P
813 Fishing Sites	P	P	P	P	N	P	P
814 Swimming Pools, outdoor	P	P	P	P	N	A	P
82 Indoor Government Public Recreation							
821 Swimming Pools	P	P	P	P	N	A	P
822 Arenas	P	P	P	P	N	A	P
823 Skating Rinks	P	P	P	P	N	P	P
824 Community Centers	P	P	P	P	N	P	P
83 Outdoor Private Land Recreation							
831 Stadia	N	N	N	P	P	A	A
832 Race Tracks	N	N	N	N	N	N	A
833 Camps & Campgrounds	S	N	N	P	N	A	P
834 Riding Academies	P	S	P	P	N	A	P
835 Skating Rinks	N	N	N	P	N	A	A
A = Aquifer Protection Permit    N = Not permitted    P = Permitted by right    S = Special Use Permit							

		DISTRICT USE TABLE					
USE CATEGORY	RFR-80	RES-1	Neighbrhd Business	Cmmrcil	Mnfctrng	Aquifer Prmry	Overlay Scndry
836 Ski & Toboggan Runs	N	N	N	P	N	A	P
837 Gun Clubs	S	N	N	N	N	A	P
838 Golf Courses	S	S	N	N	N	A	P
839 Amusement Theme Parks	N	N	N	N	N	A	A
84 Outdoor Water-based Private Recreation							
841 Boating areas	S	S	N	S	N	P	P
842 Bathing Beaches	S	S	N	S	N	P	P
843 Fishing Sites	P	P	P	S	N	P	P
844 Swimming Pools, outdoor	S	S	N	S	N	A	P
85 Indoor Private recreation							
851 Swimming Pools	S	S	N	P	P	A	P
852 Arenas	N	N	N	P	P	A	P
853 Skating Rinks	N	N	N	P	P	P	P
854 Gun Clubs	S	N	N	S	S	P	P
87 Private Nonprofit Recreation							
871 Subdivision Parks	S	S	S	S	S	A	P
872 Subdivision Community Centers	S	S	S	S	S	P	P
873 Camps	S	S	S	S	S	A	P
874 Golf Courses	S	S	S	S	S	A	P
875 Gun Clubs	S	S	N	S	S	A	P
A = Aquifer Protection Permit    N = Not permitted    P = Permitted by right    S = Special Use Permit							

APPENDIX A APPLICATION &  
CHECKLIST TO: ZONING BOARD  
OF REVIEW FOR:  
USE VARIANCE



## ZONING BOARD OF REVIEW

## APPLICATION CHECKLIST FOR

## USE VARIANCE

The application for a Use Variance to the Zoning Board of Review must be accompanied with the following information:

- A. Three (3) copies of a site plan prepared by, and signed and stamped by, a professional engineer or professional land surveyor at a scale of no less than one (1) inch= forty (40) feet clearly showing:
  - \_\_\_ name & address of property owner(s)
  - \_\_\_ date, north arrow, graphic scale, lot dimensions and area
  - \_\_\_ plat & lot, zoning district(s) and setbacks
  - \_\_\_ existing and proposed structures, and their relationship & distances from lot boundary lines
  - \_\_\_ existing and proposed parking areas and walkways
  - \_\_\_ existing and proposed landscaping, as it relates to the request
  - \_\_\_ existing streets, 911 address, wells, septic system
  - \_\_\_ list of names and addresses of all property owners within 200 feet of subject property
  - \_\_\_ any peculiar site conditions or features
- B. Three (3) copies of a separate map indicating all property owners within 200 feet of the subject property and/or all those property owners and entities which require notice under Section 45-24-53 R.I.G.L., also depicting any zoning district boundary and uses of all neighboring properties.
- C. A soil erosion and stormwater control plan with supporting calculations based standards approved by the USDA Soil Conservation Service and in conformity with the R.I. Erosion and Sediment Control Handbook.
- D. A letter from a biologist indicating that there are no freshwater wetlands on or in proximity to the site such that the application is regulated by the R.I. Freshwater Wetlands

Act, a physical alteration permit issued by the R.I. Department of Environmental Management, and where applicable, the U.S. Army Corp of Engineers, shall be required.

- E. Location of existing septic system. Where construction requires approval by R.I.DEM - Division of Land Resources for a ISDS (individual sewage disposal system) or change of use permit for the proposed activity, attach a copy to the application.
- F. Traffic Study addressing the potential impacts of the proposed activity.
- G. On a separate site plan, indicate existing and proposed topography at two (2) foot intervals.
- H. Provide evidence that the proposed water supply has sufficient supply to support the proposed activity and is of drinking water quality.

Note: Upon the applicant's request, the Zoning Board of Review, in appropriate circumstances, may waive the provision of any items of information listed above. The specific reasons for the request of waiver of checklist items must be described on the application. The waiver(s) requested must be approved by the Zoning Board before an application without all the items listed above will be deemed complete.

TOWN OF HOPKINTON  
ZONING BOARD OF REVIEW

1b: Hopkinton Zoning Board of Review  
1bwn Hall  
11bwn House Road  
Hopkinton, R.I. 02833

Ladies/Gentlemen:

The undersigned hereby applies to the Hopkinton Zoning Board of Review for a USE VARIANCE in the application of the provisions or regulations of the Hopkinton Zoning Ordinance affecting the following described premises in the manner and on the grounds hereinafter set forth.

NAMES:

Applicant: — — — — — Address: — — — — —  
Owner: — — — — — Address: — — — — —  
Lessee: — — — — — Address: — — — — —

1. Filing Instructions:

- a. The original application and eleven (11) copies, either typed or legibly printed, must be filed with the 1bwn Clerk's Office in accordance with the minimum time required to post adequate notice.
- b. A filing fee in the amount \$50.00 shall accompany an application to the Zoning Board of Review to cover the costs of processing. In addition to the \$50.00 fee, the applicant shall also be responsible for all costs incurred by the town in the course of review of this application, including stenographic services and legal advertisement, and will be billed when the final costs have been determined.
- c. All required checklist items for a USE VARIANCE must accompany the application in order to be considered a complete application.

2. Location of Premises: — — — — —  
(Name of Street or Road)

3. Plat(s) \_\_\_\_\_ Lot(s) \_\_\_\_\_ Zoning District(s) \_\_\_\_\_

911 **Address:** -----

4. Dimensions of Lot: (Frontage) feet by (Depth) feet    Ar-  
ea: (Square Ft. or Acres)

5. State present use of premises: -----

6. State proposed use of premises: -----

7. Is there a building(s) on the premises at present? \_\_\_\_\_

8. How long have you owned the premises? -----  
State year which lot(s) were platted and recorded: \_\_\_\_\_

9. Have you submitted plans to the Building & Zoning Inspec-  
tor? -----  
Has a permit been refused? -----  
If a permit has been refused, attach a copy of the denial, in  
writing.

10. Please give the size (in feet) of all existing buildings and  
accessory structures:

-----  
11. Please give the size (in feet) of all proposed buildings and  
accessory structures:

-----  
12. Please describe the extent of the proposed alterations:

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13. Please indicate the number offamilies which building is to be  
arranged: \_\_\_\_\_

14. Indicate the provision or regulation of the Hopkinton Zoning Ordinance under which application for **USE VARIANCE** is made:

15. Clearly state the grounds for which this **USE VARIANCE** is sought:

16. Request of Waiver: Please indicate the checklist items that are requested to be waived by the Zoning Board and the reasons for the request:

Respectfully submitted,

Signature    — — — — —

Signature    — — — — —

Address      — — — — —

Phone Number    — — — — —



APPENDJXB APPLICATION &  
CHECKLIST TO: ZONING BOARD  
OF REVIEW  
FOR: DIMENSIONAL  
VARIANCE



## ZONING BOARD OF REVIEW

## APPLICATION CHECKLIST FOR:

## DIMENSIONAL VARIANCE

The application for a Dimensional Variance to the Zoning Board of Review must be accompanied with the following information:

- A. Three (3) copies of a site plan prepared by, and signed and stamped by, a professional engineer or professional land surveyor at a scale of no less than one (1) inch= forty (40) feet clearly showing:
  - \_\_\_ name & address of property owner(s)
  - \_\_\_ date, north arrow, graphic scale, lot dimensions and area
  - \_\_\_ plat & lot, zoning district(s) and setbacks
  - \_\_\_ existing and proposed structures, and their relationship & distances from lot boundary lines
  - \_\_\_ existing and proposed parking areas and walkways
  - \_\_\_ existing and proposed landscaping, as it relates to the request
  - \_\_\_ existing streets, 911 address, wells, septic system
  - \_\_\_ list of names and addresses of all property owners within 200 feet of subject property
  - \_\_\_ any peculiar site conditions or features
- B. Three (3) copies of a separate map indicating all property owners within 200 feet of the subject property and/or all those property owners and entities which require notice under Section 45 24-53 R.I.G.L., also depicting any zoning district boundary and uses of all neighboring properties.
- C. A letter from a biologist indicating that there are no freshwater wetlands on or in proximity to the site such that the application is regulated by the R.I. Freshwater Wetlands Act. In those instances where the application is regulated by the R.I. Freshwater Wetlands Act, a physical alteration

permit issued by the R.I. Department of Environmental Management, and where applicable, the U.S.Army Corp of Engineers, shall be required.

- D. Location of existing septic system. Where construction requires approval by R.I.DEM - Division of Land Resources for an ISDS (individual sewage disposal system) or change of use permit for the proposed activity, attach a copy to the application.
- E. On a separate site plan, indicate existing and proposed topography at two (2) foot intervals.

Note: Upon the applicant's request, the Zoning Board of Review, in appropriate circumstances, may waive the provision of any items of information listed above. The specific reasons for the request of waiver of checklist items must be described on the application. The waiver(s) requested must be approved by the Zoning Board before an application without all the items listed above will be deemed complete.

TOWN OF HOPKINTON  
ZONING BOARD OF REVIEW

Th: Hopkinton Zoning Board of Review  
Thwn Hall  
1 Thwn House Road  
Hopkinton, R.I. 02833

Ladies/Gentlemen:

The undersigned hereby applies to the Hopkinton Zoning Board of Review for a **DIMENSIONAL VARIANCE** in the application of the provisions or regulations of the Hopkinton Zoning Ordinance affecting the following described premises in the manner and on the grounds hereinafter set forth.

NAMES:

Applicant: — — — — — Addr s: —————  
ner. — — — — — Address: —————  
— Lessee: ————— Address: —————

--

1. Filing Instructions:

- a. The original application and two (2) copies, either typed or legibly printed, must be filed with the Thwn Clerk's Office in accordance with the minimum time required to post adequate notice.
- b. A filing fee in the amount \$50.00 shall accompany an application to the Zoning Board of Review to cover the costs of legal advertisement and processing. In addition to the \$50.00 fee, the applicant shall also be responsible for all costs incurred by the town in the course of review of this application, including stenographic services and legal advertisement, and will be billed when the final costs have been determined.
- c. All required checklist items for a **DIMENSIONAL VARIANCE** must accompany the application in order to be considered a complete application.

2. Location of Premises: —————  
(Name of Street or Road)

3. Plat(s) \_\_\_\_\_ Lot(s) \_\_\_\_\_ Zoning District(s) \_\_\_\_\_

911 Address: \_\_\_\_\_

4. Dimensions of Lot: (Frontage) feet by (Depth) feet Area: (Square Ft. or Acres) \_\_\_\_\_
5. State present use of premises: \_\_\_\_\_
6. State proposed use of premises: \_\_\_\_\_
7. Is there a building(s) on the premises at present? \_\_\_\_\_
8. How long have you owned the premises? \_\_\_\_\_  
State year which lot(s) were platted and recorded: \_\_\_\_\_
9. Have you submitted plans to the Building & Zoning Inspector? \_\_\_\_\_  
Has a permit been refused: \_\_\_\_\_  
**If** a permit has been refused, attach a copy of the denial, in writing.
10. Please give the size (in feet) of all existing buildings and accessory structures:  
\_\_\_\_\_  
\_\_\_\_\_
11. Please give the size (in feet) of all proposed buildings and accessory structures:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
12. Please describe the extent of the proposed alterations:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
13. Please indicate the number of families which building is to be arranged: \_\_\_\_\_

14. Indicate the provision or regulation of the Hopkinton Zoning Ordinance under which application for DIMENSIONAL VARIANCE is made:

\_\_\_\_\_

15. Clearly state the grounds for which this DIMENSIONAL VARIANCE is sought:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

16. Request of Waiver: Please indicate the checklist items that are requested to be waived by the Zoning Board and the reasons for the request:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Respectfully submitted,

Signature — — — — —

Signature — — — — —

Address — — — — —

Phone Number — — — — —

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APPENDIXC  
APPLICATION & CHECKLIST TO:  
ZONING BOARD OF REVIEW  
FOR:  
SPECIALUSE PERMIT



## ZONING BOARD OF REVIEW

APPLICATION CHECKLIST FOR:  
SPECIAL USE PERMIT

The application for a Special Use Permit to the Zoning Board of Review must be accompanied with the following information:

- A. Three (3) copies of a site prepared by, and signed and stamped by, a professional engineer or professional land surveyor at a scale of no less than one (1) inch= forty (40) feet clearly showing:
- \_\_\_ name & address of property owner(s)
  - \_\_\_ date, north arrow, graphic scale, lot dimensions and area
  - \_\_\_ plat & lot, zoning district(s) and setbacks
  - \_\_\_ existing and proposed structures, and their relationship & distances from lot boundary lines
  - \_\_\_ existing and proposed parking areas and walkways
  - \_\_\_ existing and proposed landscaping, as it relates to the request
  - \_\_\_ existing streets, 911 address, wells, septic system
  - \_\_\_ list of names and addresses of all property owners within 200 feet of subject property
  - \_\_\_ any peculiar site conditions or features
- B. Three (3) copies of a separate map indicating all property owners within 200 feet of the subject property and/or all those property owners and entities which require notice under Section 45-24-53 R.I.G.L., also depicting any zoning district boundary and uses of all neighboring properties.
- C. A soil erosion and stormwater control plan with supporting calculations based standards approved by the USDA Soil Conservation Service and in conformity with the R.I. Erosion and Sediment Control Handbook.
- D. A letter from a biologist indicating that there are no fresh water wetlands on or in proximity to the site such that the application is regulated by the R.I. Freshwater Wetlands Act. In those instances where the application is regulated

by the R.I. Freshwater Wetlands Act, a physical alteration permit issued by the R.I. Department of Environmental Management, and where applicable, the U.S. Army Corp of Engineers, shall be required.

- E. Location of existing septic system. Where construction requires approval by R.I.DEM - Division of Land Resources for an ISDS (individual sewage disposal system) or change of use permit for the proposed activity, attach a copy to the application.
- F. Traffic Study addressing the potential impacts of the proposed activity.
- G. On a separate site plan, indicate existing and proposed topography at two (2) foot intervals.
- H. Provide evidence that the proposed water supply has sufficient supply to support the proposed activity and is of drinking water quality.

Note: Upon the applicant's request, the Zoning Board of Review, in appropriate circumstances, may waive the provision of any items of information listed above. The specific reasons for the request of waiver of checklist items must be described on the application. The waiver(s) requested must be approved by the Zoning Board before an application without all the items listed above will be deemed complete.

TOWN OF HOPKINTON  
ZONING BOARD OF REVIEW

'lb: Hopkinton Zoning Board of Review  
'lbwn Hall  
1 'lbwn House Road  
Hopkinton, R.I. 02833

Ladies/Gentlemen:

The undersigned hereby applies to the Hopkinton Zoning Board of Review for a SPECIAL USE PERMIT in the application of the provisions or regulations of the Hopkinton Zoning Ordinance affecting the following described premises in the manner and on the grounds hereinafter set forth.

NAMES:

Applicant: — — — — — Addn\$: —————  
Owner: — — — — — Address: —————  
Lessee: — — — — — Addn\$: ——— —————

1. Filing Instructions:

- a. The original application and eleven (11) copies, either typed or legibly printed, must be filed with the 'lbwn Clerk's Office in accordance with the minimum time required to post adequate notice.
- b. A filing fee in the amount \$75.00 shall accompany an application to the Zoning Board of Review to cover the costs of legal advertisement and processing. In addition to the \$75.00 fee, the applicant shall also be responsible for all costs incurred by the town in the course of review of this application, including stenographic services and legal advertisement, and will be billed when the final costs have been determined.
- c. All required checklist items for a SPECIAL USE PERMIT must accompany the application in order to be considered a complete application.

2. Location of Premises: — — — — —  
(Name of Street or Road)

3. Plat(s) \_\_\_\_\_ Lot(s) \_\_\_\_\_ Zoning District(s) \_\_\_\_\_

911 Address: \_\_\_\_\_

4. Dimensions of Lot: (Frontage) feet by (Depth) feet Area: (Square Ft. or Acres)
5. State present use of premises: — — — — —
6. State proposed use of premises: — — — — —
7. Is there a building(s) on the premises at present? \_\_\_\_\_
8. How long have you owned the premises? — — — — —  
State year which lot(s) were platted and recorded: \_\_\_\_\_
9. Have you submitted plans to the Building & Zoning Inspector? — — — — —  
Has a permit been refused: — — — — —  
**If** a permit has been refused, attach a copy of the denial, in writing.
10. Please give the size (in feet) of all existing buildings and accessory structures:
- \_\_\_\_\_
11. Please give the size (in feet) of all proposed buildings and accessory structures:
- \_\_\_\_\_
12. Please describe the extent of the proposed alterations:
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
13. Please indicate the number of families which building is to be arranged: \_\_\_\_\_

14. Indicate the provision or regulation of the Hopkinton Zoning Ordinance under which application for SPECIALUSEPERMIT is made:

15. Clearly state the grounds for which thisSPECIALUSEPERMIT is sought:

16. Request of Waiver: Please indicate the checklist items that are requested to be waived by the Zoning Board and the reasons for the request:

Respectfully submitted,

Signature — — — — —

Signature — — — — —

Address — — — — —

Phone Number — — — — —



APPENDIXD APPLICATION &  
CHECKLIST TO: BUILDING &  
ZONING DEPARTMENT FOR:  
DIMENSIONAL MODIFICATION

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## BUILDING AND ZONING DEPARTMENT

## APPLICATION CHECKLIST FOR

## DIMENSIONAL MODIFICATION

The application for a Dimensional Modification to the Building & Zoning Department must be accompanied with the following information:

- A. Three (3) copies of a site prepared by, and signed and stamped by, a professional engineer or professional land surveyor at a scale of no less than one (1) inch= forty (40) feet clearly showing:
  - name & address of property owner(s)
  - date, north arrow, graphic scale, lot dimensions and area
  - plat & lot, zoning district(s) and setbacks
  - existing and proposed structures, and their relationship & distances from lot boundary lines
  - existing and proposed parking areas and walkways
  - existing and proposed landscaping, as it relates to the request
  - existing streets, 911 addresses, wells, septic system
  - any peculiar site conditions or features
- B. Three (3) copies of a current list (show date) indicating all property owners directly abutting the subject property.
- C. A letter from a biologist indicating that there are no freshwater wetlands on or in proximity to the site such that the application is regulated by the R.I. Freshwater Wetlands Act. In those instances where the application is regulated by the R.I. Freshwater Wetlands Act, a physical alteration permit issued by the R.I. Department of Environmental Management, and where applicable, the U.S. Army Corp of Engineers, shall be required.
- D. Where proposed construction requires approval by R.I.-DEM- Division of Land Resources for an ISDS (individual sewage disposal system) or change of use permit for the

App.D

HOPKINTON CODE

proposed activity, attach a copy to the modification application.

**TOWN OF HOPKINTON  
BUILDING & ZONING DEPARTMENT**

Th: Hopkinton Building & Zoning Department  
Thwn Hall  
11bwn House Road  
Hopkinton, R.I. 02833

Ladies/Gentlemen:

The undersigned hereby applies to the Hopkinton Building & Zoning Department for a DIMENSIONALMODIFICA-  
TION in accordance with the provisions of the Hopkinton Zoning Ordinance affecting the following described prem-  
ises in the manner and on the grounds hereinafter set forth.

NAMES:

Applicant: — — — — — Address: — — — — —  
Owner: — — — — — Address: — — — — —  
Lessee: — — — — — Address: — — — — —

1. Filing Instructions:

- a. The original application and two (2) copies, either typed or legibly printed, must be filed with the Thwn Building & Zoning Department.
- b. A filing fee in the amount \$50.00 shall accompany an application to the Building & Zoning Department to cover the costs of processing. In addition to the \$50.00 fee, the applicant shall also be responsible for all costs incurred by the town in the course of review of this application, and will be billed when the final costs have been determined.
- c. All required checklist items for a DIMENSIONAL MODIFICATION must accompany the application in order to be considered a complete application.

2. Location of Premises: — — — — —  
(Name of Street or Road)

3. Plat(s) \_\_\_\_\_ Lot(s) \_\_\_\_\_ Zoning District(s) \_\_\_\_\_  
911 Address: \_\_\_\_\_

4. Dimensions of Lot: (Frontage) feet by (Depth) feet Area: (Square Ft. or Acres)
5. State present use of premises: — — — — —
6. State proposed use of premises: — — — — —
7. Is there a building(s) on the premises at present? \_\_\_\_\_
8. How long have you owned the premises? — — — — —  
State year which lot(s) were platted and recorded:
9. Have you submitted plans to the Building & Zoning Inspector? — — — — —  
Has a permit been refused: — — — — —  
If a permit has been refused, attach a copy of the denial, in writing.
10. Please give the size (in feet) of all existing buildings and accessory structures:
- \_\_\_\_\_
11. Please give the size (in feet) of all proposed buildings and accessory structures:
- \_\_\_\_\_
12. Please describe the extent of the proposed alterations:
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
13. Please indicate the number of families which building is to be arranged: \_\_\_\_\_

14. Indicate the provision or regulation of the Hopkinton Zoning Ordinance under which application for **DIMENSIONAL MODIFICATION** is made:

15. Clearly state the grounds for which this **DIMENSIONAL MODIFICATION** is sought:

Respectfully submitted,

Signature    — — — — —

Signature    — — — — —

Address     — — — — —

Phone Number    — — — — —



APPENDIXE APPLICATION &  
CHECKLIST TO: TOWN COUNCIL  
FOR:  
ZONING ORDINANCE AMENDMENT

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## TOWN COUNCIL APPLICATION

## CHECKLIST FOR:

## ZONING ORDINANCE AMENDMENT

The application for a Zoning Ordinance Amendment to the Town Council must be accompanied with the following information:

- A. Three (3) copies of a site prepared by, and signed and stamped by, a professional engineer or professional land surveyor at a scale of no less than one (1) inch= forty (40) feet clearly showing:
- name & address of property owner(s)
  - date, north arrow, graphic scale, lot dimensions and area
  - plat & lot, zoning district(s) and setbacks
  - existing and proposed structures, and their relationship & distances from lot boundary lines
  - existing and proposed parking areas and walkways
  - existing and proposed landscaping, as it relates to the request
  - existing streets, 911 address, wells, septic system.
  - list of names and addresses of all property owners within 200 feet of subject property
  - any peculiar site conditions or features
  - topographic data as may be taken from the U.S. Geological Survey 7.5 • 15 minute series quadrangle maps of the area proposed for zone amendment
- B. Three (3) copies of separate map indicating all property owners within 200 feet of the subject property and/or all those property owners and entities which require notice under Section 45-24-53 R.I.G.L., also depicting any zoning district boundary and uses of all neighboring properties.
- C. A soil erosion and stormwater control plan with supporting calculations based standards approved by the USDA Soil Conservation Service and in conformity with the R.I. Erosion and Sediment Control Handbook.

- D. A letter from a biologist indicating that there are fresh-water wetlands on or in proximity to the site such that the application is regulated by the R.I. Freshwater Wetlands Act. In those instances where the application is regulated by the R.I. Freshwater Wetlands Act, a physical alteration permit issued by the R.I. Department of Environmental Management, and where applicable, the U.S. Army Corp of Engineers, shall be required.
- E. Location of existing septic system. Where construction requires approval by R.I. DEM - Division of Land Resources for an ISDS (individual sewage disposal system) or change of use permit for the proposed activity, attach a copy to the application.
- F. Traffic Study addressing the potential impacts of the proposed activity.
- G. Provide evidence that the proposed water supply has sufficient supply to support the proposed activity and is of drinking water quality.
- H. Provide statement as to the purpose of the amendment.
- I. Provide statement as to proposed use(s) of the property (from District Use Table).

TOWN OF HOPKINTON  
TOWN COUNCIL

Town of Hopkinton Town Council  
Town Hall  
11 Town House Road  
Hopkinton, R.I. 02833

Ladies/Gentlemen:

The undersigned hereby applies to the Hopkinton Town Council for a ZONING ORDINANCE AMENDMENT in accordance with the provisions of the Hopkinton Zoning Ordinance affecting the following described premises in the manner and on the grounds hereinafter set forth.

NAMES:

•

Applicant: \_\_\_\_\_ Address: \_\_\_\_\_  
Owner: \_\_\_\_\_ Address: \_\_\_\_\_  
Lessee: \_\_\_\_\_ Address: \_\_\_\_\_

1. Filing Instructions:

- a. The original application and two (2) copies, either typed or legibly printed, must be filed with the Town Clerk.
- b. A filing fee in the amount \$100.00 shall accompany an application to the Town Council to cover the costs of processing. In addition to the \$100.00 fee, the applicant shall also be responsible for all costs incurred by the town in the course of review of this application, and will be billed when the final costs have been determined.
- c. All required checklist items for a ZONING ORDINANCE AMENDMENT must accompany the application in order to be considered a complete application.

2. Location of Premises: \_\_\_\_\_  
(Name of Street or Road)

3. Plat(s) \_\_\_\_\_ Lot(s) \_\_\_\_\_ Zoning District(s) \_\_\_\_\_  
911 Address: \_\_\_\_\_

4. Dimensions of Lot: (Frontage) feet by (Depth) feet Area: (Square Ft. or Acres)

5. State present use of premises: — — — — —
6. State proposed uses of premises: — — — — —
7. Is there a building(s) on the premises at present? \_\_\_\_\_
8. How long have you owned the premises? — — — — —  
State year which lot(s) were platted and recorded:
9. Have you submitted plans to the Building & Zoning Inspector? \_\_\_\_\_  
Has a permit been refused: \_\_\_\_\_  
If a permit has been refused, attach a copy of the denial, in writing.
10. Please give the size (in feet) of all existing buildings and accessory structures:
- \_\_\_\_\_
11. Please give the size (in feet) of all proposed buildings and accessory structures:
- \_\_\_\_\_
12. Please describe the extent of the proposed alterations:
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
13. Please indicate the number of families which building is to be arranged: \_\_\_\_\_
14. Indicate the provision of the Hopkinton Zoning Ordinance under which application for **ZONING ORDINANCE AMENDMENT** is made:
- \_\_\_\_\_
- \_\_\_\_\_

●

Phone Number    — — — — — — — — —



APPENDIX F APPLICATION &  
CHECKLIST TO: ZONING BOARD  
OF REVIEW FOR:  
APPEAL

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## ZONING BOARD OF REVIEW

## APPLICATION CHECKLIST FOR:

## APPEAL

The application for an Appeal to the Zoning Board of Review must be accompanied with the following information:

- A. Copies of all documents filed with the official or agency from which the appeal is taken.
- B. Copies of all decisions of the official or agency from which the appeal is taken.
- C. The record of any proceeding from which the appeal is taken.
- D. Three (3) copies of a map indicating all property owners within 200 feet of the subject property, and/or all those property owners and entities which require notice under Section 45-24-53 R.I.G.L., also depicting any zoning district boundary.

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TOWN OF HOPKINTON  
ZONING BOARD OF REVIEW

1b: Hopkinton Zoning Board of Review  
1bwn Hall  
11bwn House Road  
Hopkinton, R.I. 02833

Ladies/Gentlemen:

The undersigned hereby applies to the Hopkinton Zoning Board of Review for an **APPEAL** in the application of the provisions or regulations of the Hopkinton Zoning Ordinance affecting the following described premises in the manner and on the grounds hereinafter set forth.

NAMES:

Applicant: — — — — — **Ad s:** -----  
Owner. — — — — — Address: -----  
**Les:** — — — — — Address: -----

1. Filing Instructions:

- a. The original application and two (2) copies, either typed or legibly printed, must be filed with the 1bwn Clerk's Office in accordance with the minimum time required to post adequate notice.
- b. A filing fee in the amount \$75.00 shall accompany an application to the Zoning Board of Review to cover the costs of legal advertisement and processing. In addition to the \$75.00 fee, the applicant shall also be responsible for all costs incurred by the town in the course of review of this application, including stenographic services, and will be billed when the final costs have been determined.
- c. All required checklist items for an **APPEAL** must accompany the application in order to be considered a complete application.

2. Location of Premises: — — — — —  
(Name of Street or Road)

3. Plat(s) \_\_\_\_\_ Lot(s) \_\_\_\_\_ Zoning District(s) \_\_\_\_\_

911 Address: \_\_\_\_\_

4. Dimensions of Lot: (Frontage) feet by (Depth) feet Area: (Square Ft. or Acres)

5. State present use of premises: — — — — —

6. State proposed use of premises: — — — — —

7. Is there a building(s) on the premises at present? \_\_\_\_\_

8. How long have you owned the premises? — — — — —  
State year which lot(s) were platted and recorded:

9. Have you submitted plans to the Building & Zoning Inspector? — — — — —

Has a permit been refused: — — — — —

**If** a permit has been refused, attach a copy of the denial, in writing.

10. Please give the size (in feet) of all existing buildings and accessory structures:

11. Please give the size (in feet) of all proposed buildings and accessory structures:

12. Please describe the extent of the proposed alterations:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13. Please indicate the number of families which building is to be arranged: \_\_\_\_\_

- 14. Indicate the provision or regulation of the Hopkinton Zoning Ordinance under which application for **APPEAL** is made:

15. Clearly state the grounds for which this **APPEAL** is sought:

..

Respectfully submitted,

Signature — — — — —

Signature — — — — —

Address — — — — —

Phone Number — — — — —

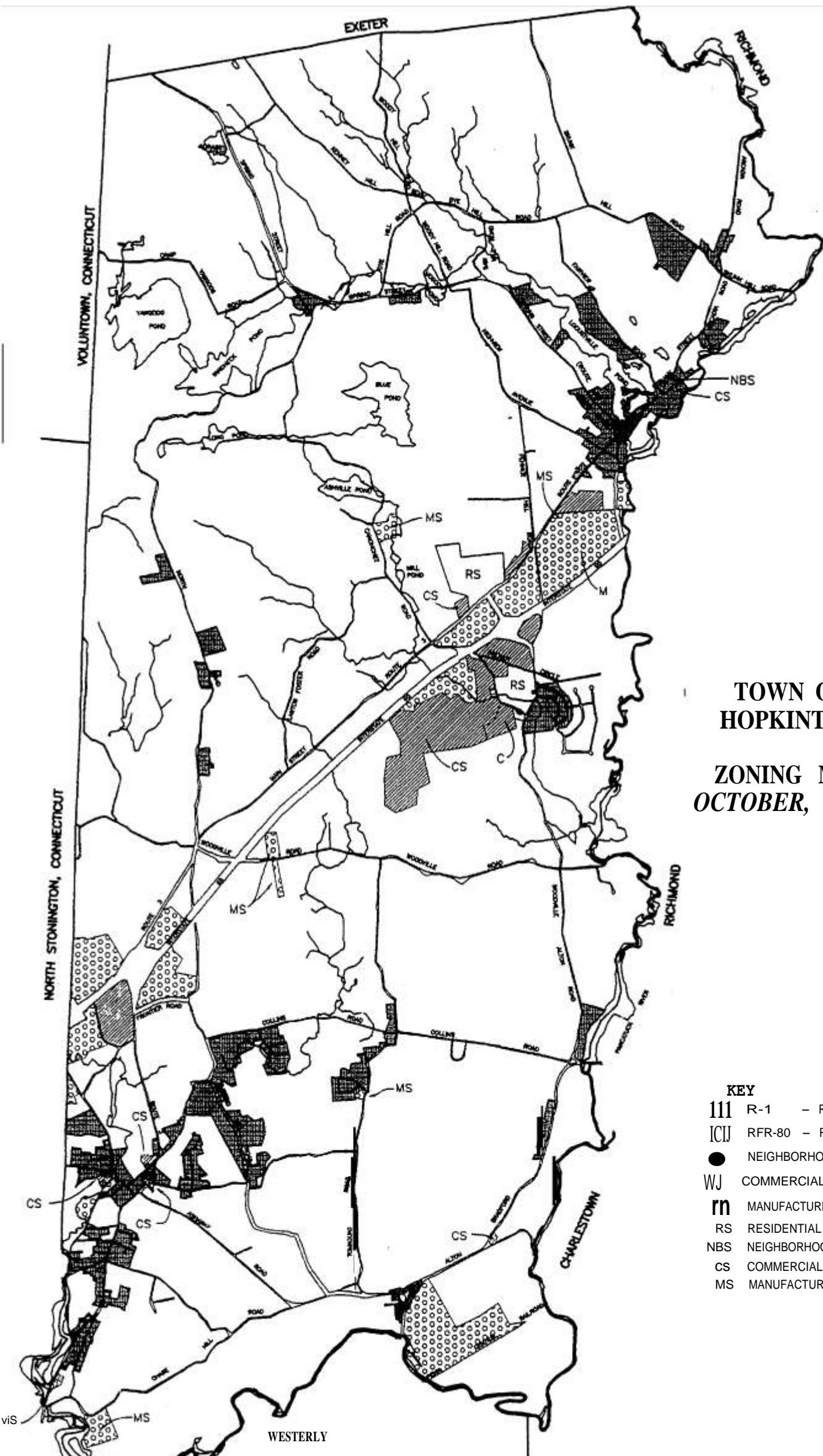


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**TOWN OF  
HOPKINTON**

**ZONING MAP  
OCTOBER, 1994**

- KEY**
- 111 R-1 - RESIDENTIAL
  - ICU RFR-80 - RESIDENTIAL
  - NEIGHBORHOOD BUSINESS
  - WJ COMMERCIAL
  - rn MANUFACTURING
  - RS RESIDENTIAL SPECIAL
  - NBS NEIGHBORHOOD BUSINESS SPECIAL
  - CS COMMERCIAL SPECIAL
  - MS MANUFACTURING SPECIAL

**SCALE: 1" = 4000'**

## Appendix J

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### New Development Inspection Form

## NEW DEVELOPMENT INSPECTION FORM

Project: \_\_\_\_\_  
 BMP: \_\_\_\_\_  
 Location: \_\_\_\_\_

INSTALLATION		MAINTENANCE			
Date	Installed: _	Inspected By:	Date Inspected	Maintenance Satisfactory?	If No, Correction Action Needed
Date	Inspected: _	1) _____	_____	1 Yes    1 No	_____
Inspected	By:	2) _____	_____	1 Yes    1 No	_____
Installation Satisfactory?		3) _____	_____	1 Yes    1 No	_____
1 Yes    1 No		4) _____	_____	1 Yes    1 No	_____
If No, Corrective Actions Needed		5) _____	_____	1 Yes    1 No	_____
_____					

BMP: \_\_\_\_\_  
 Location: \_\_\_\_\_

INSTALLATION		MAINTENANCE			
Date	Installed: _	Inspected By:	Date Inspected	Maintenance Satisfactory?	If No, Correction Action Needed
Date	Inspected: _	1) _____	_____	1 Yes    1 No	_____
Inspected	By:	2) _____	_____	1 Yes    1 No	_____
Installation Satisfactory?		3) _____	_____	1 Yes    1 No	_____
1 Yes    1 No		4) _____	_____	1 Yes    1 No	_____
If No, Corrective Actions Needed		5) _____	_____	1 Yes    1 No	_____
_____					

BMP: \_\_\_\_\_  
 Location: \_\_\_\_\_

INSTALLATION		MAINTENANCE			
Date	Installed: _	Inspected By:	Date Inspected	Maintenance Satisfactory?	If No, Correction Action Needed
Date	Inspected: _	1) _____	_____	1 Yes    1 No	_____
Inspected	By:	2) _____	_____	1 Yes    1 No	_____
Installation Satisfactory?		3) _____	_____	1 Yes    1 No	_____
1 Yes    1 No		4) _____	_____	1 Yes    1 No	_____
If No, Corrective Actions Needed		5) _____	_____	1 Yes    1 No	_____

## Appendix K

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### Storm water BMPs Operation & Management Guidelines

## **STORMWATER BEST MANAGEMENT PRACTICES (BMPs) OPERATION AND MAINTENANCE GUIDELINES**

Stormwater treatment controls should be routinely inspected and maintained to ensure that the controls are in proper working condition and operating as designed. Operation and maintenance (O&M) guidelines for common stormwater Best Management Practices (BMPs) are summarized below. Detailed maintenance requirements for specific stormwater treatment BMPs can be found in the publication "Urban Runoff Quality Management" (Water Environment Federation and American Society of Civil Engineers, 1998) and the references listed therein.

General O&M requirements for stormwater treatment controls include

Inspections: Inspections should be performed at regular intervals to ensure proper operation of stormwater BMPs. Inspections should be conducted at least annually, with additional inspections following large storm events, especially storm events that exceed the design storm for the system. Inspections should include a comprehensive visual check for evidence of the following:

- Accumulation of sediment or debris at inlet and outlet structures
- Erosion, settlement, or slope failure
- Clogging or buildup of fines on infiltration surfaces
- Vegetative stress and appropriate water levels for emergent vegetation

Routine Maintenance: Routine maintenance should be performed following inspections to ensure proper BMP operation and aesthetics. Routine maintenance should include:

- Debris and litter removal
- Silt and sediment removal
- Clearing of vegetation around flow control devices
- Maintenance and mowing of healthy vegetative cover for infiltration/filtration BMPs

Nonroutine Maintenance: Nonroutine maintenance refers to corrective measures taken to repair or rehabilitate stormwater controls to proper working condition. Nonroutine maintenance is performed as needed, typically in response to problems detected during routine maintenance and inspections, and can include:

- Erosion and structural repair
- Sediment removal and disposal
- Nuisance control (odors, mosquitoes, weeds, excessive litter)

Recommended O&M practices for specific classes of stormwater BMPs are summarized below:

1) Vegetated Swales and Filter Strips

Inspect biofilters annually and after heavy rainfall.  
Damage to vegetation by foot or vehicular traffic  
Gully erosion and evidence of concentrated bypass flows around swale/strip  
Reduction in vegetation density  
Keep biofilters free of lawn debris and pet waste.  
Keep inlet flow spreaders even and free of debris.  
Maintain dense grass cover through periodic mowing, spot reseeding, and weed control.  
Do not mow grass too close to the ground or over-apply fertilizers and pesticides.  
Mow vegetation to a height above the maximum flow depth.  
At end of growing season, vegetation should be at least 2 inches above the design water depth.  
Remove and properly dispose of grass cuttings.  
Remove sediment with a flat-bottomed shovel.  
Re-seed damaged areas and cover with erosion control fabric.

2) Infiltration Trenches

Inspect trenches several times in the first few months of operation, and then annually thereafter.  
If possible, conduct inspections after large storms.  
Check for surface water ponding or clogging.  
Periodically check pretreatment inlets of underground trenches and clean out when sediment depletes more than 10% of available capacity.  
Prune or trim adjacent trees to prevent leaves from clogging the trench.  
Rehabilitate trench after it becomes clogged, typically after 10 to 15 years.

3) Infiltration Basins

Inspect after major storm events in the first few months after construction. Check for:  
Standing water after 48 to 72 hours following a storm  
Upland sediment erosion  
Low spots  
Inspect basin annually thereafter. Check for:  
Differential settlement, cracking, erosion, or leakage through the embankment  
Condition of the riprap in the inlet and outlet channels  
Sediment accumulation in the basin  
Mow the buffer, side-slopes, and basin floor at least twice a year to discourage woody growth and control weeds.  
Mow dry ponds more frequently in residential areas adjacent to residences.  
Remove all litter and debris during each mowing operation.  
Immediately replace/revegetate eroding or barren areas.

Annual or semi-annual tilling may be required for basins located on marginally permeable soils.

Deep tilling, regrading, and leveling typically required every 5 to 10 years.

Carefully remove the top layer of accumulated sediment after the basin has thoroughly dried out, as necessary.

4) Media Filters

Inspect semiannually and after major storm events.

Remove sediment and floatables from the:

settling basin when 4 inches of sediment accumulates .

filter when 0.1 inches accumulates or when there is standing water over the

filter 40 hours after a storm

Clean the filter surfaces twice per year by raking off dried sediment

5) Extended Detention (Dry) Basins/Retention (Wet) Ponds

Mow the upper stage, side-slopes, embankment and emergency spillway at least twice a year to discourage woody growth and control weeds.

Mow ponds more frequently in residential areas adjacent to residences.

Inspect ponds annually. If possible inspections should be conducted during wet weather.

Regular inspections of the following components should be conducted:

Check extended detention control device for clogging

Check upper stage pilot channel for signs of erosion

Check the pond's bed and banks for signs of erosion

Check the condition of the emergency spillway

Check for accumulation of sediment around the riser

Remove accumulated debris and litter from around the extended detention control device.

Regrade and replant vegetation to correct problems with pond side-slopes, emergency spillway, and embankment.

Reduce potential nuisance conditions (i.e., odors, mosquitoes, weeds, and litter).

Remove accumulated sediment from the lower stage of the pond every 5 to 10 years, on average.

6) Constructed Wetlands

Inspect quarterly in year 1, semiannually in years 2 and 3, and annually thereafter.

Conduct inspections with the as-built pondscaping plans in hand for:

Wetland plant species distribution/survival

Sediment accumulation

Water elevations

Condition of the outlet

Clean out accumulated sediments in the forebay every 3 to 5 years. Conduct cleanouts after draining the forebay.

Mow the maintenance access, bench, and embankment twice a year to prevent woody growth.

Replant or adjust plant types depending on water levels and operating conditions.  
Remove potential nuisance plant species.

7) Oil!Water Separators

Inspect monthly during the wet season.  
Clean several times per year.  
Always clean before the start of the wet season.  
Properly dispose of removed oil.

## Appendix L

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### Existing SWPPP and SPCC

# STORMWATER POLLUTION PREVENTION & SPILL RESPONSE PLAN

For

Hopkinton DPW 395A Woodville Rd.Hopkinton RI.

Plan Implementation Date:

Revision Dates: J/ J-1 /JJ

Facility Responsible Persons:

Name	work #	home #	cell#
Timothy Tefft	401-377-7790	401-315-0265	401-573-5038
David Caswell	401-377-7790	401-539-7421	401-465-3230

Emergency Contact Numbers:

Service	Emergency #	business#
Ashaway Ambulance	911	401-377-8312
Hope Valley ambulance	911	401-539-2839
Ashaway Fire	911	401-377-4610
Hope Valley Fire	911	401-539-2211
Hopkinton Police	911	401-377-7750

Facility Response Persons:

Timothy Tefft	401-573-5038 cell	401-315-0265 home
David Caswell	401-465-3230 cell	401-539-7421home

Poision Control Center: 1-800-222-1222

Regional EPA Office : 1-888-372-7341

State Enviornmental Agency :401-222-6800 day 401-222-3070 after hours

OSHA:617-565-9860

National Response Center :1-800-424-8802

RIEMA :401-946-9996

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# Material Inventory

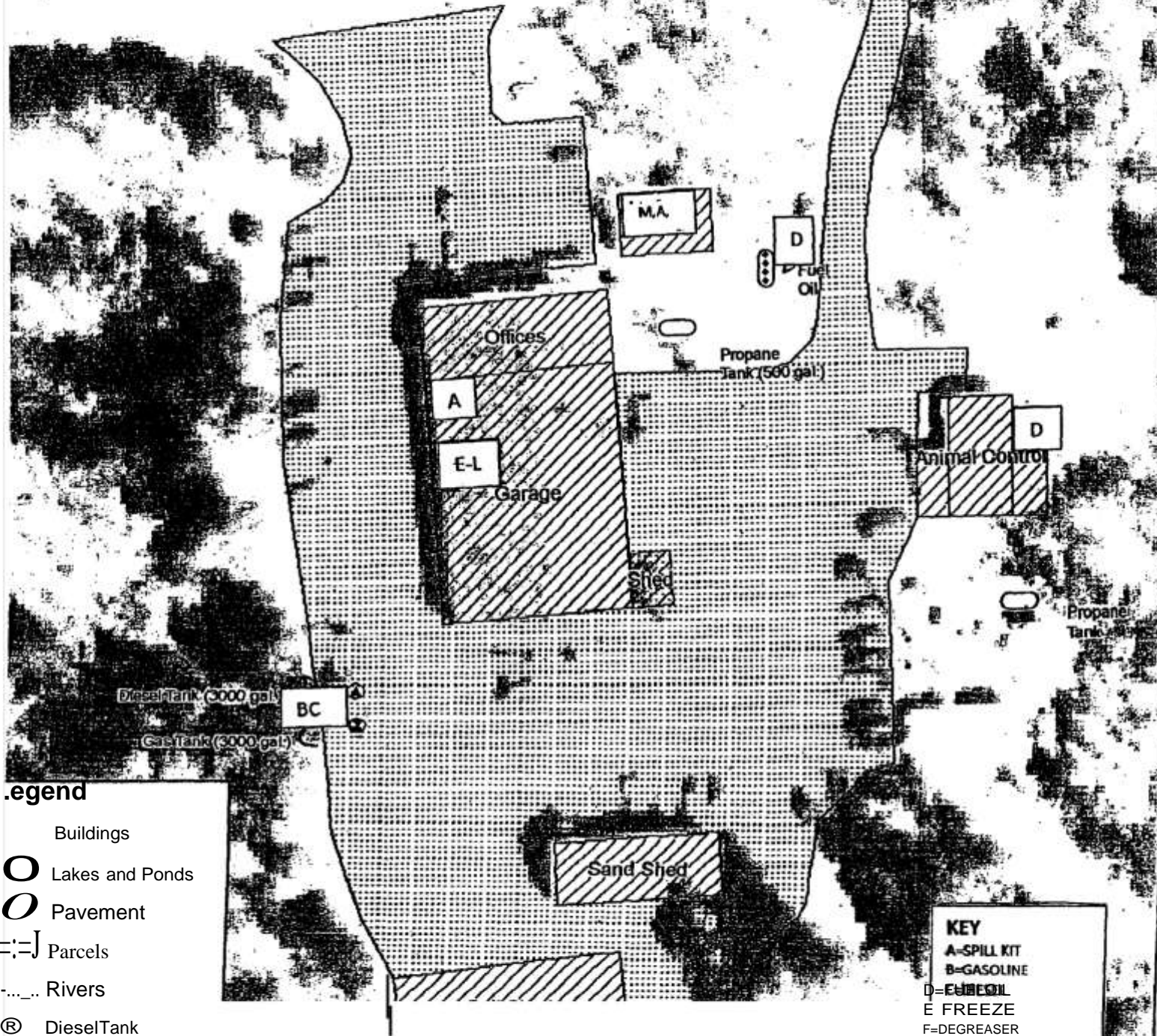
Material	Amount avg/max	Locations
#2 fuel	1000 gallons	Northwest side of property
#2 fuel	300 gallons	Behind animal control
Antifreeze	50 gallons	Mechanics Bay/upstairs
Degreaser	30 gallons	Mechanics bay
Diesel additive	55 gallons	Mechanics bay
Diesel fuel	2500 gallons	southeast side of property
Diesel fuel	70 gallon portable	front center 2 car garage
Gasoline	2500 gallons	southeast side of property
Hydraulic oil	250 gallons	Mechanics bay
Motor oil	200 gallons	Mechanics bay
Paints /Stains	30 gallons	Mechanics bay /upstair storage
Solvents	25 gallons	Mechanics bay
Used oil	250 gallons	Truck bay
Used Antifreeze	50Gallons	Truck Bay

# SITE OVERVIEW MAP

Charles Niles.®lic Works'Gomplex  
Hopkinton, Rhode Island

wood'J\le Road

SPILL RESPONSE AND Qttl\_1\,INMENT  
LOCATIONS



## Legend

- Buildings
- Lakes and Ponds
- Pavement
- Parcels
- Rivers
- Diesel Tank
- Gas Tank
- Propane Tank
- Fuel Oil

## KEY

- A=SPILL KIT
- B=GASOLINE
- D=ENGINE OIL
- E FREEZE
- F=DEGREASER
- G=MOTOR OIL
- H=HYDRAULIC OIL
- I=PAINT /STAIN
- J=SOLVENT
- K=USED OIL

L=DIESEL ADDITIVE  
M= PORTABLE DIESEL

100 Feet

## CLEAN-UP PROCEDURES

Spilled chemicals should be effectively and quickly contained and cleaned up. Employees should clean up spills themselves *only if properly trained and protected*. Employees who are not trained in spill cleanup procedures should report the spill to the Responsible Person(s) listed above, warn other employees, and leave the area.

In the event of spills greater than approximately gallons, contact the appropriate responders listed in the Emergency Contact numbers listed above.

The following general guidelines should be followed for evacuation, spill control, notification of proper authorities, and general emergency procedures in the event of a chemical incident in which there is potential for a significant release of hazardous materials.

### 1. Evacuation

Persons in the immediate vicinity of a spill should *immediately evacuate* the premises (except for employees with training in spill response in circumstances described below). If the spill is of medium or large size, or if the spill seems hazardous, immediately notify emergency response personnel.

### 2. Spill Control Techniques

Once a spill has occurred, the employee needs to decide whether the spill is small enough to handle without outside assistance. Only employees with training in spill response should attempt to contain or clean up a spill.

NOTE: If you are cleaning up a spill yourself, make sure you are aware of the hazards associated with the materials spilled, have adequate ventilation, and proper personal protective equipment. Treat all residual chemical and cleanup materials as hazardous waste.

Spill control equipment should be located wherever significant quantities of hazardous materials are received or stored. MSDSs, absorbents, over-pack containers, container patch kits, spill dams, shovels, floor dry, acid neutralizers, and "caution-keep out" signs are common spill response items.

### 3. Spill Response and Cleanup

Chemical spills are divided into three categories: Small, Medium and Large. Response and cleanup procedures vary depending on the size of the spill.

**Small Spills:** Any spill where the major dimension is less than 18 inches in diameter. Small spills are generally handled by internal personnel and usually do not require an emergency response by police or fire department HAZMAT teams.

- Quickly control the spill by stopping or securing the spill source. This could be as simple as uprighting a container and using floor-dry or absorbent pads to soak up spilled material. Wear gloves and protective clothing, if necessary.
- Put spill material and absorbents in secure containers if any are available.
- Consult with the Facility Responsible Person and the MSDS for spill and waste disposal procedures.
- In some instances, the area of the spill should not be washed with water. Use Dry Cleanup Methods and never wash spills down the drain, onto a storm drain or onto the driveway or parking lot.
- Both the spilled material and the absorbent may be considered hazardous waste and must be disposed of in compliance with state and federal environmental regulations.

Medium Spills: Spills where the major dimension exceeds 18 inches, but is less than 6 feet. Outside emergency response personnel (police and fire department HAZMAT teams) should usually be called for medium spills. Common sense, however, will dictate when it is necessary to call them.

- Immediately try to help contain the spill at its source by simple measures only. This means quickly uprighting a container, or putting a lid on a container, if possible. Do not use absorbents unless they are immediately available. Once you have made a quick attempt to contain the spill, or once you have quickly determined you cannot take any brief containment measures, leave the area and alert Emergency Responders at 911. Closing doors behind you while leaving helps contain fumes from spills. Give police accurate information as to the location, chemical, and estimated amount of the spill.
- Evaluate the area outside the spill. Engines and electrical equipment near the spill area must be turned off. This eliminates various sources of ignition in the area. Advise Emergency Responders on how to turn off engines or electrical sources. Do not go back into the spill area once you have left. Help emergency responders by trying to determine how to shut off heating, air conditioning equipment, or air circulating equipment, if necessary.
- If emergency responders evacuate the spill area, follow their instructions in leaving the area.
- After emergency responders have contained the spill, be prepared to assist them with any other information that may be necessary, such as MSDSs and questions about the facility. Emergency responders or trained personnel with proper personal protective equipment will then clean up the spill residue. Do not re-enter the area until the responder in charge gives the all clear. Be prepared to assist these persons from outside the spill area with MSDSs, absorbents, and containers.
- Reports must be filed with proper authorities. It is the responsibility of the spiller to inform both his/her supervisor and the emergency responders as to what caused the spill. The response for large spills is similar to the procedures for medium spills, except that the exposure danger is greater.

Large Spills: Any spill involving flammable liquid where the major dimension exceeds 6 feet in diameter; and any "running" spill, where the source of the spill has not been contained or flow has not been stopped.

- Leave the area and notify Emergency Responders (911). Give the operator the spill location, chemical spilled, and approximate amount.
- From a safe area, attempt to get MSDS information for the spilled chemical for the emergency responders to use. Also, be prepared to advise responders as to any ignition sources, engines, electrical power, or air conditioning/ventilation systems that may need to be shut off. Advise responders of any absorbents, containers, or spill control equipment that may be available. This may need to be done from a remote area, because an evacuation that would place the spiller far from the scene may be needed. Use radio or phone to assist from a distance, if necessary.
- Only emergency response personnel, in accordance with their own established procedures, should handle spills greater than 6 feet in any dimension or that are continuous. Remember, once the emergency responders or HAZMAT team is on the job cleaning up spills or putting out fires, the area is under their control and no one may re-enter the area until the responder in charge gives the all clear.
- Provide information for reports to supervisors and responders, just as in medium spills.

# SPILL KIT INVENTORY

location	absorb nt,s	tools		other supplies
1 in pump room	natural sorb [boos rolls of loth	js ovel broom	1 ubber_gloves safety glasses dusk mask	cautio _tape markers
1 in truck #1 toolbox	natural sorb booms... rolls of cloth	shovel broom	rubber gloves safe_tyg ses ilk mask lls _for ie_sel	speedi dri ll k(:_r_ lcautiontape
1 in Crandall Bam	sorb_ or cloth_		ci"sk mask_	

David Caswell is responsible for maintaining these kits.

# STORMWATER POLLUTION PREVENTION & SPILL RESPONSE PLAN

For

Hopkinton Recreation Facilities.Hopkinton RI.

.....  
Plan Implementation Date: j/J;/;J

Revision Dates:

.....  
Facility Responsible Persons:

Name	work#	home#	cell#
Timothy Tefft	401-377-7790	401-315-0265	401-573-5038
David Caswell	401-377-7790	401-539-7421	401-465-3230

.....  
Emergency Contact Numbers:

Service	Emergency #	business#
Ashaway Ambulance	911	401-377-8312
Hope Valley ambulance	911	401-539-2839
Ashaway Fire	911	401-377-4610
Hope Valley Fire	911	401-539-2211
Hopkinton Police	911	401-377-7750

Facility Response Persons:

Timothy Tefft	401-573-5038 cell	401-315-0265 home
David Caswell	401-465-3230 cell	401-539-7421home

Poision ControlCenter: 1-800-222-1222

RegionalEPA Office: 1-888-372-7341

State Enviornmental Agency :401-222-6800 day 401-222-3070 after hours

OSHA:617-565-9860

National Response Center :1-800-424-8802

RIEMA :401-946-9996

## CLEAN-UP PROCEDURES

Spilled chemicals should be effectively and quickly contained and cleaned up. Employees should clean up spills themselves *only if properly trained and protected*. Employees who are not trained in spill cleanup procedures should report the spill to the Responsible Person(s) listed above, warn other employees, and leave the area.

In the event of spills greater than approximately 5 gallons, contact the appropriate responders listed in the Emergency Contact Numbers listed above.

The following general guidelines should be followed for evacuation, spill control, notification of proper authorities, and general emergency procedures in the event of a chemical incident in which there is potential for a significant release of hazardous materials.

### 1. Evacuation

Persons in the immediate vicinity of a spill should *immediately evacuate* the premises (except for employees with training in spill response in circumstances described below). If the spill is of "medium" or "large" size, or if the spill seems hazardous, immediately notify emergency response personnel.

### 2. Spill Control Techniques

Once a spill has occurred, the employee needs to decide whether the spill is small enough to handle without outside assistance. Only employees with training in spill response should attempt to contain or clean up a spill.

NOTE: If you are cleaning up a spill yourself, make sure you are aware of the hazards associated with the materials spilled, have adequate ventilation, and proper personal protective equipment. Treat all residual chemical and cleanup materials as hazardous waste.

Spill control equipment should be located wherever significant quantities of hazardous materials are received or stored. MSDSs, absorbents, overpack containers, container patch kits, spill dams, shovels, floor dry, acid/base neutralizers, and "caution (keep out)" signs are common spill response items.

### 3. Spill Response and Cleanup

Chemical spills are divided into three categories: Small, Medium and Large. Response and cleanup procedures vary depending on the size of the spill.

**Small Spills:** Any spill where the material is contained within 18 inches in diameter. Small spills are generally handled by trained personnel. Large spills usually do not require an emergency response by police or fire department.

Quarantine the spill source. This could be as simple as covering the spill with a spill pad to soak up spilled material. Wear gloves and use appropriate PPE.

- Put spill material and absorbents in secure containers if any are available.
- Consult with the Facility Responsible Person and the MSDS for spill and waste disposal procedures.
- In some instances, the area of the spill should not be washed with water. Use Dry Cleanup Methods and never wash spills down the drain, onto a storm drain or onto the driveway or parking lot.
- Both the spilled material and the absorbent material must be disposed of in compliance with state and federal environmental regulations.

**Medium Spills:** Spills where the major dimension exceeds 18 inches, but is less than 6 feet. Outside emergency response personnel (police and fire department HAZMAT teams) should usually be called for medium spills. Common sense, however, will dictate when it is necessary to call them.

- Immediately try to help contain the spill at its source by simple measures only. This means quickly uprighting a container, or putting a lid on a container, if possible. Do not use absorbents unless they are immediately available. Once you have made a quick attempt to contain the spill, or once you have quickly determined you cannot take any brief containment measures, leave the area and alert Emergency Responders at 911. Closing doors behind you while leaving helps contain fumes from spills. Give police accurate information as to the location, chemical, and estimated amount of the spill.
- Evaluate the area outside the spill. Engines and electrical equipment near the spill area must be turned off. This eliminates various sources of ignition in the area. Advise Emergency Responders on how to turn off engines or electrical sources. Do not go back into the spill area once you have left. Help emergency responders by trying to determine how to shut off heating, air conditioning equipment, or air circulating equipment, if necessary.
- If emergency responders evacuate the spill area, follow their instructions in leaving the area.
- After emergency responders have contained the spill, be prepared to assist them with any other information that may be necessary, such as MSDSs and questions about the facility. Emergency responders or trained personnel with proper personal protective equipment will then clean up the spill residue. Do not re-enter the area until the responder in charge gives the all clear. Be prepared to assist these persons from outside the spill area with MSDSs, absorbents, and containers.
- Reports must be filed with proper authorities. It is the responsibility of the spiller to inform both his/her supervisor and the emergency responders as to what caused the spill. The response for large spills is similar to the procedures for medium spills, except that the exposure *danger* is greater.

**Large Spills:** Any spill involving flammable liquid where the major dimension exceeds 6 feet in diameter; and any "running" spill, where the source of the spill has not been contained or flow has not been stopped.

- Leave the area and notify Emergency Responders (911). Give the operator the spill location, chemical spilled, and approximate amount.
- From a safe area, attempt to get MSDS information for the spilled chemical for the emergency responders to use. Also, be prepared to advise responders as to any ignition sources, engines, electrical power, or air conditioning/ventilation systems that may need to be shut off. Advise responders of any absorbents, containers, or spill control equipment that may be available. This may need to be done from a remote area, because an evacuation that would place the spiller far from the scene may be needed. Use radio or phone to assist from a distance, if necessary.
- Only emergency response personnel, in accordance with their own established procedures, should handle spills greater than 6 feet in any dimension or that are continuous. Remember, once the emergency responders or HAZMAT team is on the job cleaning up spills or putting out fires, the area is under their control and no one may re-enter the area until the responder in charge gives the all clear.
- Provide information for reports to supervisors and responders, just as in medium spills.

## REPORTING SPILLS

All chemical spills, regardless of size, should be reported as soon as possible to the Facility Responsible Person. The Responsible Person will determine whether the spill has the potential to affect the environment outside of the facility and must be reported to 911 or the National Response Center at 800-424-8802. Examples of spills that could affect the outside environment include spills that are accompanied by fire or explosion and spills that could reach nearby water bodies.

Accidental releases of certain toxic substances must be reported to the State Of RIDEM. The Responsible Person will also make this determination.

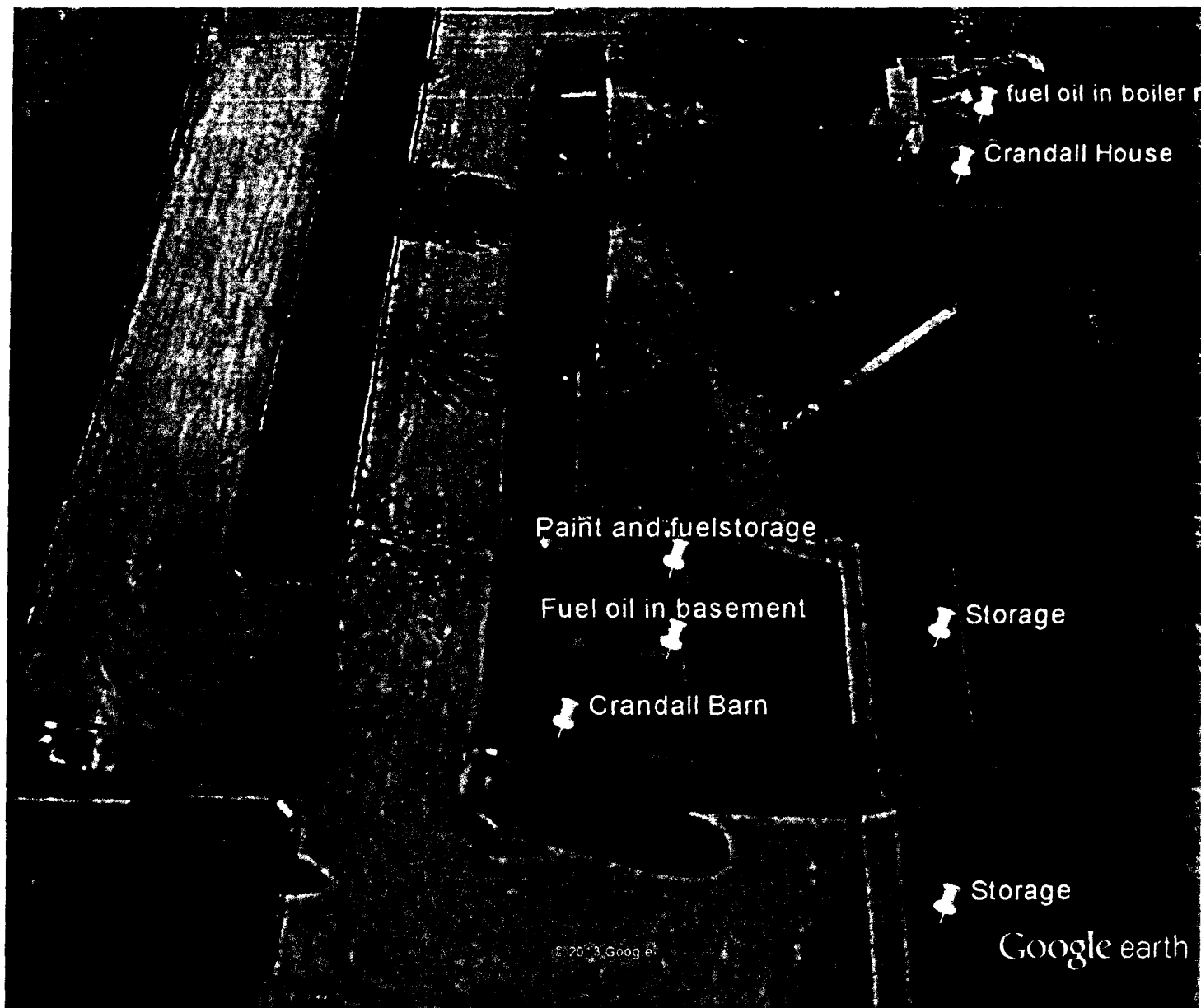
# SPILL KIT INVENTORY

location	absorbents	tools	PPE	other supplies
1 in pump room	natural sorb booms rolls of cloth	shovel broom	Rubber gloves safety glasses dusk mask	caution tape markers
1 in truck #1 toolbox	natural sorb booms rolls of cloth	shovel boom	Rubber gloves safety glasses dusk mask filters for diesel	speedi dri marker caution tape
1 (d Crandall Bam	16 us(r	16 us(r	16 us(r	16 us(r

David Caswell is responsible for maintaining these kits.



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## Appendix M

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### Pollution Prevention Checklists

# MUNICIPAL INSPECTION CHECKLIST FOR A CONSTRUCTION ACTIVITY SUBJECT TO NPDES REQUIREMENTS

## Pollution Prevention Plan:

- ☐ The plan is on site
- ☐ Required revisions attached to plan
- ☐ Inspection reports attached to plan

Comments:

## Discharge Locations:

- ☐ Outlet free of obstructions
- ☐ Absence of sediment build-up
- ☐ Absence of undermining of structure
- ☐ Erosion controls installed properly
- ☐ Turbidity level acceptable
- ☐ Turbidity barrier functioning

Comments:

## Disturbed Areas (stabilization measures):

- Grading - ☐ Graded areas free of debris (rocks, roots, trash, etc.)
- ☐ Rough grading temporarily seeded/Final grading seeded or sodded
- Hay Bales - ☐ installed per design & specifications
- ☐ free of accumulated sediments
- ☐ trenched in, back filled and compacted
- ☐ replaced where rotten or saturated
- ☐ installed without gaps between bales
- Silt Fence - ☐ installed per design & specifications (fabric, wire, stakes, spacing, etc.)
- ☐ bottom trenched in a minimum of 4 inches
- ☐ free of splicing between sections
- ☐ secured adequately (cannot be pulled out with one hand)
- ☐ free of accumulated sediments
- ☐ fabric and stakes in good condition
- Swales - ☐ stabilized
- ☐ free of sediment or debris
- ☐ free of ponding
- ☐ constructed at design elevation

Comments:

## Materials Storage Areas:

- ☐ Debris and stock piles maintained properly
- ☐ Materials stored properly
- ☐ No evidence of spills
- ☐ Secondary containment of on-site fueling tanks
- ☐ Spill response equipment and materials on site

Comments:

## Structural Control Devices:

- ☐ Sediment traps used and installed properly
- ☐ Stormwater Basins constructed to proper elevation and side slopes
- ☐ Flooding absent around or within inlet
- ☐ Inlet free of erosion
- ☐ Inlet free of debris and/or sediment
- ☐ Inlet at design elevation
- ☐ All hardware and equipment installed per design
- ☐ Perimeter berm at design elevation
- ☐ Perimeter berm compacted and stabilized

Comments:

## Vehicle Ingress/Egress Locations:

- ☐ Built per design, specifications and stabilized
- ☐ Maintenance is being performed (raking, adding more stone, etc.)
- ☐ Use of wash rack and proper discharge of wash water
- ☐ Affected street(s) swept to remove excess stones and sediments

Comments:

## Other:

- ☐ Dewatering operation per plan and discharge free of turbidity
- ☐ Sanitary facilities maintained properly
- ☐ Original permitted plans implemented without major change(s)
- ☐ Offsite area(s) free of impact(s) due to construction
- ☐ Litter control

Comments:

## Roadway Catch Basin Inspection / Illicit Detection Form

Roadway Name: <input style="width: 90%;" type="text"/>	CB ID: <input style="width: 90%;" type="text"/>	Type: <input style="width: 90%;" type="text"/>
Receiving Body: <input style="width: 90%;" type="text"/>		
Weather.: <input style="width: 90%;" type="text"/>	Temperature: <input style="width: 90%;" type="text"/>	Date: <input style="width: 90%;" type="text"/>
Description: <input style="width: 90%; height: 40px;" type="text"/>		
Location: <input style="width: 90%; height: 25px;" type="text"/>		
Latitude: <input style="width: 90%;" type="text"/>	Longitude: <input style="width: 90%;" type="text"/>	
Flow: <input style="width: 90%;" type="text"/>	Inlet Cond: <input style="width: 90%;" type="text"/>	
High Stage Problems: <input style="width: 90%;" type="text"/>	Outlet Cond: <input style="width: 90%;" type="text"/>	

General Remarks:

## Visual Observations for Illicit Detection During Dry Conditions

Visual Observations:	Photo Taken:	<input type="checkbox"/> Yes <input type="checkbox"/> No	if "Yes", roll(s) & photo number(s): _____
Odor: <input type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Rotten Eggs <input type="checkbox"/> Sour Milk <input type="checkbox"/> Other _____			
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____			
Clarity: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Suspended Solids			
Floatables: <input type="checkbox"/> None <input type="checkbox"/> Oily Sheen <input type="checkbox"/> Garbage/Sewage <input type="checkbox"/> Debris <input type="checkbox"/> Other _____			
Deposits/Stains: <input type="checkbox"/> None <input type="checkbox"/> Oily <input type="checkbox"/> Sediments <input type="checkbox"/> Other _____			
Vegetation Condition: <input type="checkbox"/> None <input type="checkbox"/> Normal <input type="checkbox"/> Excessive Growth <input type="checkbox"/> Dead or Discolored			
Biological: <input type="checkbox"/> Mosquito Larvae <input type="checkbox"/> Algae <input type="checkbox"/> Other _____			
Note: If illicit(s) are observed follow up with field screening investigation procedures			

Inspector's Name: <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>	Maintenance: <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <input type="checkbox"/> Scheduled for Maintenance  <input type="checkbox"/> Maintenance Performed         </div>
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### Appendix E: Maintenance Inspection Checklist Stormwater Ponds and Wetlands

Project/Location: \_\_\_\_\_

“As Built” Plans Available? \_\_\_\_\_

Date/Time: \_\_\_\_\_

Days Since Previous Rainfall and Rainfall Amount: \_\_\_\_\_

Inspector: \_\_\_\_\_

Maintenance Item	Satisfactory	Unsatisfactory	Comments
<b>1. Embankment and Emergency Spillway</b>			
Vegetation and ground cover adequate			
Embankment erosion			
Animal burrows			
Unauthorized planting			
Cracking, bulging, or sliding of embankment/dam			
a. Upstream face			
b. Downstream face			
c. At or beyond toe			
d. Emergency spillway			
Pond, toe & chimney drains clear and functioning			
Seeps/leaks on downstream face			
Slope protection or riprap failure			
Vertical/horizontal alignment of top of dam “As-Built”			
Emergency spillway clear of obstructions and debris			
Other (specify)			
<b>2. Riser and Principal Spillway</b>			
Low flow orifice obstructed			
Low flow trash rack obstructed with debris			
Weir trash rack obstructed with debris			
Excessive sediment accumulation insider riser			
Concrete/masonry condition riser and barrels			
a. Cracks or displacement			
b. Minor spalling (<1”)			
c. Major spalling (rebars exposed)			
d. Joint failures			
e. Water tightness			
Metal pipe condition			
Control valve			
a. Operational/exercised			

Maintenance Item	Satisfactory	Unsatisfactory	Comments
b. Chained and locked			
Pond drain valve			
a. Operational/exercised			
b. Chained and locked			
Outfall channels functioning			
Other (specify)			
<b>3. Permanent Pool (Wet Ponds)</b>			
Undesirable vegetative growth			
Floating or floatable debris removal required			
Visible pollution			
Shoreline problem			
Other (specify)			
<b>4. Sediment Forebay</b>			
Sedimentation noted			
Greater than 50% of storage volume remaining			
<b>5. Dry Pond Areas</b>			
Vegetation coverage adequate			
Undesirable vegetative growth			
Undesirable woody vegetation			
Low flow channels clear of obstructions			
Standing water or wet spots			
Sediment and/or trash accumulation			
Other (specify)			
<b>6. Condition of Outfalls</b>			
Riprap failures			
Slope erosion			
Storm drain pipes			
Endwalls/Headwalls			
Other (specify)			
<b>7. Other</b>			
Complaints from residents (odors, insects, other)			
Aesthetics (graffiti, algae, other)			
Conditions of maintenance access routes			
Signs of hydrocarbon build-up			
Any public hazards (specify)			
<b>8. Wetland Vegetation</b>			
Vegetation healthy and growing			
Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)			
Survival of desired wetland plant species distribution according to landscaping plan?			
Evidence of invasive species			

Source: Adapted from Watershed Management Institute, Inc. 1997. *Operation, Maintenance, and Management of Stormwater Management Systems*. In cooperation with U.S. Environmental Protection Agency, Office of Water. Washington, D.C.

### Appendix E: Maintenance Inspection Checklist Infiltration Basins and Trenches

Project/Location: \_\_\_\_\_

“As Built” Plans Available? \_\_\_\_\_

Date/Time: \_\_\_\_\_

Days Since Previous Rainfall and Rainfall Amount: \_\_\_\_\_

Inspector: \_\_\_\_\_

Maintenance Item	Satisfactory	Unsatisfactory	Comments
<b>1. Debris Cleanout</b>			
Basin bottom or trench surface clear of debris			
Inlet/Inflow pipes clear of debris			
Overflow spillway clear of debris			
Outlet clear of debris			
<b>2. Sediment Traps or Forebays</b>			
Sedimentation noted			
Greater than 50% of storage volume remaining			
<b>3. Vegetation (Basins)</b>			
Mowing performed as necessary			
No evidence of erosion			
<b>4. Dewatering</b>			
Basin/Trench dewaterers between storms			
Drawdown time does not exceed 36 to 48 hours			
<b>5. Sediment Accumulation</b>			
Approximate depth of accumulated sediment			
<b>6. Inlets</b>			
Good condition			
No evidence of erosion			
<b>7. Outlet/Overflow Spillway</b>			
Good condition, no need for repair			
No evidence of erosion			
<b>8. Aggregate Repairs (Trench)</b>			
Surface of aggregate clean			
Top layer of stone does not need replacement			
Trench does not need rehabilitation			
<b>9. Structural Repairs</b>			
Embankment in good repair			
Site slopes are stable			
No evidence of erosion			

Source: Adapted from Watershed Management Institute, Inc. 1997. *Operation, Maintenance, and Management of Stormwater Management Systems*. In cooperation with U.S. Environmental Protection Agency, Office of Water. Washington, D.C.

### Appendix E: Maintenance Inspection Checklist Filtering Practices —Sand and Organic Filters

Project/Location: \_\_\_\_\_

“As Built” Plans Available? \_\_\_\_\_

Date/Time: \_\_\_\_\_

Days Since Previous Rainfall and Rainfall Amount: \_\_\_\_\_

Inspector: \_\_\_\_\_

Maintenance Item	Satisfactory	Unsatisfactory	Comments
<b>1. Debris Cleanout</b>			
Filtration facility clean of debris			
Inlet and outlets clear of debris			
<b>2. Oil and Grease</b>			
No evidence of filter surface clogging			
Activities in drainage area minimize oil and grease entry			
<b>3. Vegetation</b>			
Contributing drainage area stabilized			
No evidence of erosion			
Area mowed and clipping removed			
<b>4. Water Retention</b>			
Water holding chambers at normal pool			
Filter chamber dewaterers between storms			
No evidence of leakage			
<b>5. Sediment Accumulation</b>			
Approximate depth of accumulated sediment			
Depth of sediment in forebay or sump should not be more than 12 inches or 10 percent of the pretreatment volume			
Sediment accumulation on filter bed does not exceed 1” or drawdown time does not exceed 36 to 48 hours			
<b>6. Structural Components</b>			
No evidence of structural deterioration			
Grates are in good condition			
No evidence of spalling or cracking of structural parts			
<b>7. Outlet/Overflow Spillway</b>			
Good condition, no need for repairs			
No evidence of erosion (if draining into a natural channel)			
<b>8. Overall Function of Facility</b>			
No evidence of flow bypassing facility			
No noticeable odors outside facility			

<b>Actions to Be Taken:</b>          <b>To Be Completed By (Date):</b>			
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Source: Adapted from Watershed Management Institute, Inc. 1997. *Operation, Maintenance, and Management of Stormwater Management Systems*. In cooperation with U.S. Environmental Protection Agency, Office of Water. Washington, D.C.

### Appendix E: Maintenance Inspection Checklist Filtering Practices - Bioretention

Project/Location: \_\_\_\_\_

“As Built” Plans Available? \_\_\_\_\_

Date/Time: \_\_\_\_\_

Days Since Previous Rainfall and Rainfall Amount: \_\_\_\_\_

Inspector: \_\_\_\_\_

Maintenance Item	Satisfactory	Unsatisfactory	Comments
<b>1. Debris Cleanout</b>			
Bioretention and contributing areas clean of debris			
No dumping of yard wastes into practice			
Litter (branches, etc.) has been removed			
<b>2. Vegetation</b>			
Plant height not less than design water depth			
Fertilized per specifications			
Plant composition according to approved plans			
No placement of inappropriate plants			
Grass height not greater than 6 inches			
No evidence of erosion			
<b>3. Check Dams/Energy Dissipaters/Sumps</b>			
No evidence of sediment buildup			
No evidence of erosion at downstream toe of drop structure			
<b>4. Dewatering</b>			
Dewaterers between storms			
No evidence of standing water			
<b>5. Sediment Accumulation</b>			
Approximate depth of accumulated sediment			
Depth of sediment in forebay or sump should not be more than 12 inches or 10 percent of the pretreatment volume			
Sediment accumulation on filter bed does not exceed 1” or drawdown time does not exceed 36 to 48 hours			
<b>6. Outlet/Overflow Spillway</b>			
Good condition, no need for repair			
No evidence of erosion			
No evidence of any blockages			
<b>7. Integrity of Filter Bed</b>			
Filter bed has not been blocked or filled inappropriately			
<b>Actions to Be Taken:</b>			

**To Be Completed By (Date):**

Source: Adapted from Watershed Management Institute, Inc. 1997. *Operation, Maintenance, and Management of Stormwater Management Systems*. In cooperation with U.S. Environmental Protection Agency, Office of Water. Washington, D.C.

Project/Location: \_\_\_\_\_

“As Built” Plans Available? \_\_\_\_\_

Date/Time: \_\_\_\_\_

Days Since Previous Rainfall and Rainfall Amount: \_\_\_\_\_

Inspector: \_\_\_\_\_

Maintenance Item	Satisfactory	Unsatisfactory	Comments
<b>1. Debris Cleanout</b>			
No excessive trash and debris in contributing areas, forebay, or channel			
<b>2. Check Dams or Energy Dissipators</b>			
No evidence of flow going around structures			
No evidence of erosion at downstream toe			
<b>3. Vegetation</b>			
Mowing performed as necessary (to maintain grass height of 4 to 6 inches during growing season)			
No evidence of erosion (channel bottom or side slopes)			
Fertilized per specification			
<b>4. Dewatering</b>			
Dewaters between storms (dry swales)			
<b>5. Sediment Accumulation</b>			
Approximate depth of accumulated sediment			
Sediment accumulation is less than 25% of forebay or channel capacity (cleaning recommended otherwise)			
<b>6. Outlet/Overflow Spillway</b>			
Good condition, no need for repairs			
No evidence of erosion			
<b>Actions to Be Taken:</b>			
<b>To Be Completed By (Date):</b>			

E-10

## Appendix N

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### Annual Report Template- RIDEM



## RIPDES SMALL MS4 ANNUAL REPORT

### GENERAL INFORMATION PAGE

RIPDES PERMIT # \_\_\_\_\_

REPORTING PERIOD (check one):

... **YEAR 1**      .. **YEAR 2**      ... **YEAR 3**      ... **YEAR 4**      ... **YEAR 5**  
March 04-Dec 04      Jan 05-Dec 05      Jan 06-Dec 06      Jan 07-Dec 07      Jan 08-Dec 08

#### OPERATOR OF MS4

Name:			
Mailing Address:			
City:	State:	Zip:	Phone:
Contact Person:	Title:		
Legal status (circle one): PRI - Private      PUB - Public      BPP - Public/Private      STA - State      FED – Federal			
Other (please specify):			

#### OWNER OF MS4 (if different from OPERATOR)

Name:			
Mailing Address:			
City:	State:	Zip:	Phone: (    )
Contact Person:	Title:		

#### CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name \_\_\_\_\_

Print Title \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_



# RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Office of Water Resources



## INSTRUCTIONS FOR THE RI POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS AND INDUSTRIAL ACTIVITY AT ELIGIBLE FACILITIES OPERATED BY REGULATED SMALL MS4s ANNUAL REPORT FORM

### **WHO MUST SUBMIT AN ANNUAL REPORT:**

Owners/Operators of regulated small municipal separate storm sewer systems (MS4s) and industrial activities authorized to discharge storm water under the Rhode Island Pollutant Discharge Elimination System (RIPDES) Storm Water General Permit for Small Municipal Separate Storm Sewer Systems and Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s, must submit an Annual Report, outlined in Part IV.G of the permit. The Report must be submitted each year after permit issuance by March 19<sup>th</sup> to track progress of compliance. If you have questions regarding this Annual Report Form contact Margarita Chatterton of the Rhode Island Department of Environmental Management (RIDEM), Office of Water Resources, Permitting Section at (401) 222-4700 ext. 7605.

The Annual Report must be submitted to:

RIDEM  
Office of Water Resources  
RIPDES Program  
Permitting Section  
235 Promenade Street  
Providence, RI 02908  
ATTN: Margarita Chatterton

### **INSTRUCTIONS FOR COMPLETION:**

#### **GENERAL INFORMATION PAGE:**

##### **“RIPDES Permit #”**

Include your permit ID # to ensure proper tracking.

##### **“Reporting Period”**

Please check the appropriate annual reporting period.

##### **“Operator of MS4”**

Give the legal name of the person, firm, public (municipal) organization, or any other entity that is responsible for day-to-day operations of the MS4 described in this application (RIPDES Rules 3 & 12). Enter the complete address and telephone number of the operator. Circle the appropriate choice to indicate the legal status of the operator of the MS4.

##### **“Owner of MS4”**

If the owner is the same as the operator do not complete this section. Give the legal name of the person, firm,

public (municipal) organization, or any other entity that owns the MS4 described in this application (RIPDES Rules 3 & 12). Do not use a colloquial name. Enter the complete address and telephone number of the owner.

##### **“Certification”**

State and federal statutes provide for severe penalties for submitting false information on this application form. State and federal regulations require this application to be signed as follows (RIPDES Rule 12);

*For a corporation:* by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information or permit application requirements; and where authority to sign documentation has been assigned or delegated to the manager in accordance with cooperate procedures;

*For a partnership or sole proprietorship:* by a general partner or the proprietor;

*For a Municipality, State, Federal or other public site:* by either a principal executive officer or ranking elected official.

#### **PART 1- MEASURABLE GOALS:**

One page, front and back, is provided to report on the status and effectiveness of measurable goals which have been developed to aid the implementation of strategies, procedures, and programs used to achieve each of the six minimum control measures in Part IV.B of the General Permit. Please type or print in the appropriate areas only. If additional space is needed please submit attachments to the appropriate minimum control measure following the format provided.

The first section entitled "Required Measurable Goals" include mainly strategies, procedures, and programs which **MUST** be developed/implemented by a specific year as mandated by the permit.

The second section entitled "Additional Measurable Goals" provides space to include your own MS4-specific measurable goals not prescribed in the permit (though noted in your Storm Water Management Program Plan), but are intended to aid in the implementation of strategies, procedures, and programs outlined in the permit to comply with each minimum measure.

*Example: Public Education and Outreach*

**"Required Measurable Goals"- Sections IV.B.1.b.2 and IV.B.1.b.4 are considered "Required Measurable Goals" because strategies on how to inform the community on how to become involved in the storm water program and how operators will utilize partnerships, and strategies to list target pollutant sources MUST be developed within the first year. These are considered "Required Measurable Goals" because the development of such strategies has a deadline.**

"Additional Measurable Goals"- Any further establishment of deadlines, percentages, etc. used to aid the implementation of strategies, procedures, or programs are considered "Additional Measurable Goals." Examples may include: informing 70% of residents about proper fertilizer use; introduction of an ordinance to control pet waste by the end of the third year. These would classify as "Additional Measurable Goals" because they are not prescribed by the permit but are fulfilling overall minimum measure requirements.

**"Permit ID #"**

The Permit ID # is the part of the permit where you can find a listing or description of the required measurable goal.

**"BMP ID #"**

The BMP ID # refers to the number assigned to a specific requirement or BMP and reported to the Department in the Storm Water Management Program Plan.

**"List Measurable Goal"**

A brief description of the measurable goal with the year it must be completed by in parentheses.

**"Was Goal Met?"**

- Check YES if...the goal was accomplished in its entirety on or before schedule.
- Check NO if...the goal was not met in its entirety on schedule.
- Check ON TRACK if...you are currently working to complete the goal on schedule.

**"If not met..."**

Complete this section only if you have checked NO or ON TRACK in the previous section. If you have not met the

measurable goal on time OR are on track with meeting the measurable goal on time, please provide a brief description as to why the goal has not been met, the current status of actions needed to meet the goal, any current plans, and the date you foresee the goal to be completed by. Please keep this section brief. Additional space is available on the reverse side to expand.

**"Effective"**

To the best of your knowledge please note if the measurable goal has been effective.

**"TMDL"**

Please note if the completion of this measurable goal will satisfy a remedial requirement of an approved TMDL. Please see Addendum A for additional requirements.

## **PART II- OVERALL EVALUATION:**

This section provides narrative space for a more descriptive explanation and evaluation of the actions taken to satisfy each of the minimum control measures. After evaluation, it may be necessary to make changes or modifications to your Implementation Schedule if the time frame, appropriateness or effectiveness cannot be assured. If so, please include descriptions of changes or modifications, and detailed justification in the appropriate sections.

**"General Summary"**

Please provide a general summary of actions taken (implementation of BMPs, development of procedures, events, etc.) to meet the measurable goals of the minimum measure. Please note how successful those actions were on the overall minimum control measure. Be sure to identify parties responsible for achieving each measurable goal and reference any reliance on another entity for achieving any measurable goal.

**"Status of Measurable Goal"**

**Describe whether each measurable goal was completed within the time proposed in the MS4 General Permit or your Storm Water Management Program Plan (SWMPP). Why or why not? Provide a progress report and discussion of activities that will be carried out during the next reporting cycle to satisfy the requirements of the minimum measures. Also include a discussion of any proposed changes to BMPs or measurable goals.**

**"Appropriateness"**

**Assess the appropriateness of the actions taken to meet the requirements of the minimum measure. In determining appropriateness you may want to consider, but not limited to, the local population, pollution sources, receiving water concerns, integration with local management procedures, and available resources.**

### ***“Effectiveness and Measures of Success”***

Discuss the effectiveness of the implementation of BMPs to meet the requirements of the minimum measure and the overall effectiveness of the minimum measure. Describe your progress towards achieving the overall goal of reducing the discharge of pollutants. Please include assessment parameters/indicators used to measure the success of the minimum measure.

### ***PART III- ADDITIONAL ANNUAL REPORT REQUIREMENTS***

**Section 1:** Complete this section only if your MS4 is subject to an approved TMDL and you have checked the TMDL column in Part I of the Annual Report if any measurable goal satisfies requirements of an approved TMDL. Be sure to identify the approved TMDL and assess the progress towards meeting the requirements for the control of storm water (Part IV.G.2.d).

**Section 2:** Specify the date of and how the annual report was public noticed. If a public meeting was needed, provide the date and place. Include a summary of public comments received in the public comment period of the draft annual report and planned responses or changes to the program (new or revised BMP's and measurable goals, partnerships, etc.). Be sure to attach a copy of your public notice (Part IV.G.2.h and IV.G.2.i).

**Section 3:** As noted in Part IV.G.2.j of the General Permit, specify any planned municipal construction projects or opportunities to include water quality BMPs, low impact development, or seek to promote infiltration and recharge.

**Section 4:** List location, date found, operator of the physically interconnected MS4, and originating source of newly identified physical interconnections with other small MS4s. Also note any planned or coordinated activities with the physically interconnected MS4 (Part IV.G.2.k and IV.G.2.l).

**Section 5:** Provide the number of illicit discharges identified, complaints received, violations with a summary of enforcement actions, and unresolved violations that have been referred to RIDEM. Include a short narrative describing the extent to which your system has been mapped (Part IV.G.2.m).

**Section 6:** Construction inspection information for erosion and sediment control should be submitted annually as stated in Part IV.G.2.n. Provide a summary of the number of site inspections conducted, inspections that have resulted in enforcement actions, violations that have been resolved and those unresolved, referred to RIDEM.

**Section 7:** Post construction inspection information for proper installation of post construction structural BMPs should be submitted annually as stated in Part IV.G.2.o. This should provide a summary of the number of site inspections conducted, inspections that have resulted in enforcement actions, violations that have been resolved and those unresolved, referred to RIDEM.

**Section 8:** Inspection information for proper operation and maintenance of post construction structural BMPs should be submitted annually as stated in Part IV.G.2.p. This should provide a summary of the number of site inspections conducted, inspections that have resulted in enforcement actions, violations that have been resolved and those unresolved, referred to RIDEM.

**Section 9:** As prescribed in Part IV.B.6.b.1.i of the General Permit, the MS4 operator must identify and list the specific location and a description of all structural BMPs in the SWMPP at the time of application and update the information in the annual report.

**Section 10:** Part IV.B.6.b.1.v of the Permit states to identify and report annually, as part of the annual report, known discharges causing scouring at outfall pipes or outfalls with excessive sedimentation. Include Outfall ID #, location, description of the problem, any remediation taken, and the ultimate receiving water body.

**Section 11:** Please include a summary of results of any other information that has been collected and analyzed. This includes any type of data, including, but not limited to, dry weather survey data (Part IV.G.2.e).



# MINIMUM CONTROL MEASURE #1: PUBLIC EDUCATION AND OUTREACH (Part IV.B.1 General Permit)

## I. MEASURABLE GOALS:

### A. REQUIRED MEASURABLE GOALS:

Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	Effective?		TMDL?	
			YES	NO	ON-TRK		YES	NO	YES	NO
IV.B.1.b.2	1	Strategies on how to inform the community on how to become involved in the storm water program and how operators will utilize partnerships with governmental and non-governmental entities (1 <sup>st</sup> year)								
IV.B.1.b.4	2	Strategies to list target pollutant sources the public education program is designed to address (1 <sup>st</sup> year)								

### B. ADDITIONAL MEASURABLE GOALS:


PUBLIC EDUCATION AND OUTREACH cont'd

**II. OVERALL EVALUATION:**

<p><b>A. GENERAL SUMMARY:</b> (Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals)</p>
<p><b>B. STATUS OF MEASURABLE GOALS:</b></p>
<p><b>C. APPROPRIATENESS:</b></p>
<p><b>D. EFFECTIVENESS:</b></p>



## MINIMUM CONTROL MEASURE #2: PUBLIC INVOLVEMENT/PARTICIPATION (Part IV.B.2 General Permit)

### I. MEASURABLE GOALS:

#### A. REQUIRED MEASURABLE GOALS:

Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	Effective?		TMDL?	
			YES	NO	ON-TRK		YES	NO	YES	NO
IV.B.2.b.2.i	1	Strategies to identify the target audiences of the public involvement program and description of the groups engaged (1 <sup>st</sup> year)								
IV.B.2.b.2.ii	2	Strategies to describe types of public involvement activities in the program (1 <sup>st</sup> year)								
IV.B.2.b.2.iii	3	The operator must provide adequate public notice of the draft annual report and provide the opportunity for public comment (annually)								

#### B. ADDITIONAL MEASURABLE GOALS:


**II. OVERALL EVALUATION:**

<p><b>A. GENERAL SUMMARY:</b> (Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals)</p>
<p><b>B. STATUS OF MEASURABLE GOALS:</b></p>
<p><b>C. APPROPRIATENESS:</b></p>
<p><b>D. EFFECTIVENESS:</b></p>



### MINIMUM CONTROL MEASURE #3: ILLCIT DISCHARGE DETECTION AND ELIMINATION (Part IV.B.3 General Permit)

#### I. MEASURABLE GOALS:

A. REQUIRED MEASURABLE GOALS:										
Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	Effective?		TMDL?	
			YES	NO	ON-TRK		YES	NO	YES	NO
IV.B.3.b.1	1	Development of an outfall map showing the location of all outfalls and names of receiving waters (3rd year)								
IV.B.3.b.2	2	Strategies for tagging outfall pipes if GIS maps are not being developed(1st year)								
IV.B.3.b.4	3	Introduction of an ordinance to prohibit and enforce illicit discharges to the MS4 (1st year)								
		Ordinance adoption (2nd year)								
IV.B.3.b.5. i	4	Strategies for locating priority areas (1st year)								
IV.B.3.b.5. ii	5	Procedures for receipt and consideration of complaints (1st year)								
IV.B.3.b.5. iii	6	Procedures for tracing the source of an illicit discharge (1st year)								
IV.B.3.b.5. iv	7	Procedures for removing the source of the illicit discharge (1st year)								
IV.B.3.b.5. v	8	Procedures for program evaluation and assessment (1st year)								
IV.B.3.b.5. vi	9	Procedures for inspection of all catch basins and manholes for illicit connections and non-storm water discharges (1st year)								
		Inspections taking place at least once (4th year)								
IV.B.3.b.5. vii	10	Procedures for conducting a minimum of two dry weather surveys, one between Jan 1st and April 30th and one between July 1st and Oct 31st. (Sanitary sewers- bacteria sampling is only required once between July 1st and Oct 31st (1st year)								
		Two dry weather surveys to be completed (4th year)								
IV.B.3.b.6	11	Procedures for coordinating with physically interconnected MS4s, including state and federal owned or operated MS4s, when illicit discharges are detected or reported (1st year)								

**ILLCIT DISCHARGE DETECTION AND ELIMINATION cont'd**

IV.B.3.b.7	12	Procedures for referral to RIDEM of non-storm water discharges not authorized by this permit or a pre-existing permit (1st year)								
IV.B.3.b.9	13	Procedures for tracking and recording actions to detect/address illicit discharges (1st year)								
<b>B. ADDITIONAL MEASURABLE GOALS:</b>										

## II. OVERALL EVALUATION:

### A. GENERAL SUMMARY:

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals)

### B. STATUS OF MEASURABLE GOALS:

### C. APPROPRIATENESS:

### D. EFFECTIVENESS:



## MINIMUM CONTROL MEASURE #4: CONSTRUCTION SITE STORM WATER RUNOFF CONTROL (Part IV.B.4 General Permit)

### I. MEASURABLE GOALS:

A. REQUIRED MEASURABLE GOALS:										
Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	Effective?		TMDL?	
			YES	NO	ON-TRK		YES	NO	YES	NO
IV.B.4.b.1	1	Development and introduction of a mechanism to require erosion and sediment control, control of other wastes, and sanctions to ensure compliance (1 <sup>st</sup> year)								
		Mechanism adoption (2 <sup>nd</sup> year)								
IV.B.4.b.2	2	Procedures for issuing permits and implementing policies and procedures for all construction projects disturbing $\geq 1$ acre (2 <sup>nd</sup> year)								
		Implementation of procedures (end of 2 <sup>nd</sup> year)								
IV.B.4.b.4	3	Implementation of program to review 100% of plans and SWPPPs for construction projects $\geq 1$ acre not reviewed by other State Programs (2 <sup>nd</sup> year)								
IV.B.4.b.5	4	Procedures for coordination of site plan and SWPPP review when relying on State program reviews of construction activity (2 <sup>nd</sup> year)								
		Implementation of procedures (end of 2 <sup>nd</sup> year)								
IV.B.4.b.7	5	Inspect 100% of all construction projects within the regulated area that discharge or have the potential to discharge to the MS4 (2 <sup>nd</sup> year)								
IV.B.4.b.8	6	Procedures for referral to the State of non-compliant construction site operators (2 <sup>nd</sup> year)								
B. ADDITIONAL MEASURABLE GOALS:										

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL cont'd

**II. OVERALL EVALUATION:**

<p><b>A. GENERAL SUMMARY:</b> (Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals)</p>
<p><b>B. STATUS OF MEASURABLE GOALS:</b></p>
<p><b>C. APPROPRIATENESS:</b></p>
<p><b>D. EFFECTIVENESS:</b></p>



## POST CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT (Part IV.B.5 General Permit)

### I. MEASURABLE GOALS:

A. REQUIRED MEASURABLE GOALS:										
Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	Effective?		TMDL?	
			YES	NO	ON-TRK		YES	NO	YES	NO
IV.B.5.b.2	1	Description of how the program is consistent with the <u>State of Rhode Island Storm Water Design and Installation Manual</u> and will be tailored for the community/facility, minimize water quality impacts, and maintain pre-development runoff conditions (2 <sup>nd</sup> year)			<input checked="" type="checkbox"/>	The City is waiting for the publishing of the upcoming edition and will recommend sections, BMPs, etc to the City's needs.				
IV.B.5.b.3	2	Procedures for pre-application meetings (2 <sup>nd</sup> year)			<input checked="" type="checkbox"/>	Procedures will be developed as part of the development of the new ordinance.				
IV.B.5.b.4	3	Implementation of program to review 100% of plans for development projects one or more acres not reviewed by other State Programs (2 <sup>nd</sup> year)			<input checked="" type="checkbox"/>	Procedures will be developed as part of the development of the new ordinance.				
IV.B.5.b.5	4	Description of how the program will coordinate with existing State programs requiring post-construction storm water management (2 <sup>nd</sup> year)			<input checked="" type="checkbox"/>	Coordination procedures will be developed as part of the development of the new ordinance.				
IV.B.5.b.6	5	Procedures for referral of new discharges of storm water associated with industrial activity (2 <sup>nd</sup> year)			<input checked="" type="checkbox"/>	Procedures will be finalized although the general process is in the SWMPP.				
IV.B.5.b.9	6	Develop and introduce regulatory mechanism to address post-construction runoff (1 <sup>st</sup> year)		<input checked="" type="checkbox"/>		Ordinance was introduced in the first year of program by March 10, 2005.				
		Mechanism adoption (2 <sup>nd</sup> year)			<input checked="" type="checkbox"/>	The City is on track to adopt the introduced ordinance in Year 2.				
IV.B.5.b.10	7	Procedures for post-construction inspections of BMPs and inspect 100% of all development ≥ 1 acre within the regulated area that discharges to the MS4 (2 <sup>nd</sup> year)			<input checked="" type="checkbox"/>	Procedures will be developed as part of the development of the new ordinance.				
		Implementation of procedures (end of 2 <sup>nd</sup> year)								
IV.B.5.b.12	8	Development of a program to identify existing structural BMPs (2 <sup>nd</sup> year)			<input checked="" type="checkbox"/>	The program will be developed. Many of the existing BMPs are known.				

## POST CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

B. ADDITIONAL MEASURABLE GOALS:										

## II. OVERALL EVALUATION:

<p><b>A. GENERAL SUMMARY:</b>          (Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals)</p>
<p><b>B. STATUS OF MEASURABLE GOALS:</b></p>
<p><b>C. APPROPRIATENESS:</b></p>
<p><b>D. EFFECTIVENESS:</b></p>



# **MINIMUM CONTROL MEASURE #6:** **POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS (Part IV.B.6 General Permit)**

## **I. MEASURABLE GOALS:**

<b>A. REQUIRED MEASURABLE GOALS:</b>										
Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	Effective?		TMDL?	
			YES	NO	ON-TRK		YES	NO	YES	NO
IV.B.6.b.1.i	1	Procedures for identifying, locating and describing all municipally owned structural BMPs (1 <sup>st</sup> year)								
IV.B.6.b.1.ii	2	Procedures for inspecting and cleaning BMPs (1 <sup>st</sup> year)								
IV.B.6.b.1.iii	3	Procedures for an annual catch basin inspection and cleaning program (1st year)								
		Implementation of program (3 <sup>rd</sup> year)								
IV.B.6.b.1.iv	4	Procedures to minimize erosion of road side shoulders and ditches (1st year)								
IV.B.6.b.1.v	5	Procedures to identify and report annually the known discharges causing scouring at outfall pipes or outfalls with excessive sedimentation (1 <sup>st</sup> year)								
IV.B.6.b.1.vi	6	Procedures for a road sweeping program that includes sweeping all streets and roads within the regulated area annually ( 1 <sup>st</sup> year)								
		Implementing the program to occur annually (3 <sup>rd</sup> year)								
IV.B.6.b.1.vii	7	Description of maintenance activities, schedules and long-term inspection procedures for controls to reduce floatables (1 <sup>st</sup> year)								
IV.B.6.b.1.viii	8	Procedures for the proper disposal of removed waste from the MS4 (1 <sup>st</sup> year)								
IV.B.6.b.2	9	Operator must report and describe all operations under legal control that may have the potential to introduce pollutants into storm water runoff (1 <sup>st</sup> year)								
IV.B.6.b.4	10	Procedures for the development of an O&M and good housekeeping program for non-industrial facilities with the potential to introduce pollutants to their storm water discharges with the goal of minimizing or eliminating pollutant runoff (1 <sup>st</sup> year)								
		All recommended BMPs to be implemented by 4 <sup>th</sup> year								

**POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS**

IV.B.6.b.7	11	Procedures for assessment of flow management projects (1 <sup>st</sup> year)		<input checked="" type="checkbox"/>						
IV.B.6.b.8	12	Procedures for implementing proper erosion and sediment and water quality control for construction projects (1 <sup>st</sup> year)		<input checked="" type="checkbox"/>						

**B. ADDITIONAL MEASURABLE GOALS:**

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**II. OVERALL EVALUATION:**

**A. GENERAL SUMMARY:**

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals)

**B. STATUS OF MEASURABLE GOALS:**

**C. APPROPRIATENESS:**

**D. EFFECTIVENESS:**



## PART III: ADDITIONAL ANNUAL REPORT REQUIREMENTS

**SECTION I.** Please provide an assessment of the progress towards meeting the requirements for the control of storm water identified in an approved TMDL (Part IV.G.2.d).

**SECTION 2.** Public Notice Information (IV.G.2.h and IV.G.2.i) \*Note: attach copy of public notice

Date of Public Notice:	How public was notified:
Was public meeting held?      YES      NO	
Date:	Where:
Summary of public comments received:	
Planned responses or changes to the program:	

**SECTION 3.** Note any planned municipal construction projects/opportunities to incorporate water quality BMPs, low impact development, or activities to promote infiltration and recharge (Part IV.G.2.j)

**SECTION 4. Interconnections (Part IV.G.2.k and IV.G.2.l)**

Interconnection:	Date Found:	Location:	Connectee:	Originating Source:	Planned and Coordinated Efforts and Activities with Connectee:

**SECTION 5. Illicit Discharge Inspections to Date (Part IV.G.2.m)**

Total Illicit Discharges Identified:	# of Complaints Received:
# of Violations Issued:	# of Unresolved Violations Referred to RIDEM:
Summary of Enforcement Actions:	
Extent to which the MS4 system has been mapped:	

**SECTION 6. Erosion and Sediment Control Inspections (Part IV.G.2.n)**

# of Site Inspections:	# of Complaints Received:
# of Violations Issued:	# of Unresolved Violations Referred to RIDEM:
Summary of Enforcement Actions:	

**SECTION 7. Post Construction Inspections: Proper Installation of Structural BMPs (Part IV.G.2.o)**

# of Site Inspections:	# of Complaints Received:
# of Violations Issued:	# of Unresolved Violations Referred to RIDEM:
Summary of Enforcement Actions:	

**SECTION 8. Post Construction Inspections: Proper Operation and Maintenance of Structural BMPs (Part IV.G.2.p)**

# of Site Inspections:	# of Complaints Received:
# of Violations Issued:	# of Unresolved Violations Referred to RIDEM:
Summary of Enforcement Actions:	

**SECTION 9. Structural BMPs (Part IV.B.6.b.1.i)**

BMP ID:	Location:	Name of BMP Owner/Operator:	Description of BMP:

**SECTION 10. Discharges Causing Scouring or Excessive Sedimentation (Part IV.B.6.b.1.v)**

Outfall ID:	Location:	Description of Problem:	Description of Remediation Taken:	Receiving Water Body Name/Description:
None found				

**SECTION 11. Please include a summary of results of any other information that has been collected and analyzed. This includes any type of data (Part IV.G.2.e).**

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