

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Groundwater Protection Program, Office of Water Resources

**DEM Groundwater Protection Program
Local Comprehensive Plan Review Criteria**

April 2005

Introduction

The Rhode Island Comprehensive Planning and Land Use Regulation Act, R.I. Gen. Law 45-22.2, requires each Rhode Island municipality to adopt a municipal comprehensive plan that must address the presence of Natural Resources, including groundwater, within that municipality. It further requires that each adopted comprehensive plan must be consistent with existing State policies. State agency review of each plan is mandated by the Act to determine this consistency. *Handbook on the Local Comprehensive Plan*, adopted May 11, 2000 (also known as Handbook 16 and published by the Rhode Island Statewide Planning Program available at < <http://www.planning.state.ri.us/compplan/default.htm> >) provides a description of the nine required elements that form the local comprehensive plan.

The purpose of this document is to update the RI Department of Environmental Management (DEM) Office of Water Resources Groundwater Protection Program criteria for determining if a local comprehensive plan is consistent with the state's groundwater protection goals and policies. This update is necessitated in large part by recent changes in the DEM Wellhead Protection Program.

Groundwater Protection

Rhode Island's groundwater resources are one of the state's most valuable natural resources supplying drinking water to approximately 25% of the state's population. It is especially valuable in the rapidly developing rural areas of the state. The Rhode Island Groundwater Protection Act of 1985 (Rhode Island General Laws 46-13.1) set forth vigorous policies for the protection of this resource that have guided DEM in implementing its Groundwater Protection Program. These policies aim to prevent degradation of the state's groundwater resources; to restore groundwater, where feasible to drinking water quality; and to protect it for drinking water, agricultural, commercial, industrial and recreational uses, and as a source of water for surface waters of the state.

Many state and federal pollution control programs have developed over the years, but these programs are only part of the response needed for groundwater protection. Local governments, with their authority over land use, need to take a significant role. In 1993, the DEM "Rules and Regulations for Groundwater Quality" were amended to include requirements for municipalities and groundwater dependent large water suppliers in implementing the Rhode Island Wellhead Protection (WHP) Program, which had been approved earlier by the United States

Environmental Protection Agency. The goal of the WHP Program is to protect the groundwater within the area contributing water to a public drinking water well (referred to as a “source water protection area” or “wellhead protection area” (WHPA)). The regulations required municipalities with WHPAs and the large water suppliers to prepare a WHP Plan that meets the requirements in the regulations. This was the first time municipalities had to comply with very specific groundwater protection planning requirements. Many municipalities in the state have a significant dependence on private wells that supply residences and businesses. In these communities, DEM strongly recommended that a drinking water protection plan for the community be developed that addresses WHPAs and areas dependent on private wells. Despite the requirement for a WHP Plan, only a few municipal WHP Plans have been prepared since 1993.

Proposed Revisions to the Groundwater Quality Regulations

In contrast to WHP planning, all communities have submitted local comprehensive plans. The Office of Water Resources Groundwater Protection Program has been part of the comprehensive plan review process and has found that many communities have taken and plan to take significant steps to protect groundwater. Recognizing the overlap between WHP planning and the comprehensive planning process, DEM has amended its regulations to *delete the requirement for a separate municipal WHP plan*. WHP planning requirements will now be satisfied by local comprehensive plans that are determined by DEM to be consistent with the state’s groundwater protection goals and policies. The review criteria in the next section will explain what is expected of each community.

Comprehensive Plan Review Criteria – DEM Groundwater Protection Program

(1) All Communities

All comprehensive plans must be consistent with the following goals and policies from the Rhode Island Groundwater Protection Act (Rhode Island General Laws 46-13.1):

- Water is vital to life and comprises an invaluable natural resource which is not to be abused by any segment of the state's population or its economy. It is the policy of this state to restore, enhance, and maintain the chemical, physical, and biological integrity of its waters, to protect public health, to safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial, and other uses of water;
- The groundwaters of this state are a critical renewable resource which must be protected to insure the availability of safe and potable drinking water for present and future needs;
- It is a paramount policy of the state to protect the purity of present and future drinking water supplies by protecting aquifers, recharge areas, and watersheds;
- It is the policy of the state to restore and maintain the quality of groundwater to a quality consistent with its use for drinking supplies and other designated beneficial uses without treatment as feasible. All groundwaters of the state shall be restored to the extent practicable to a quality consistent with this policy;

- It is the policy of the state not to permit the introduction of pollutants into the groundwaters of the state in concentrations which are known to be toxic, carcinogenic, mutagenic, or teratogenic. To the maximum extent practical, efforts shall be made to require the removal of those pollutants from discharges where such discharges are shown to have already occurred;
- Existing and potential sources of groundwater shall be maintained and protected. Where existing quality is inadequate to support certain uses, the quality shall be upgraded, if feasible to protect the present and potential uses of the resource;
- The groundwaters of the state are to be protected for use as agricultural, industrial, and potable water supplies, and other reasonable uses, and as a supplement to surface waters for recreation, wildlife, fish and other aquatic life, agriculture, industry, and potable water supply;
- Discharges to groundwater which subsequently discharge into surface waters and which would cause a contravention of surface water quality or standards shall not be permitted; and
- No degradation of the state's groundwaters shall be permitted unless the state chooses to allow lower water quality as a result of the essential, desirable, and justifiable economic, commercial, industrial, or social development.

In order to be consistent with these goals and policies, *all comprehensive plans must include the following:*

- A) Description of the community's groundwater resources.
- B) Identify the uses/benefits of groundwater, e.g.:
 - * Drinking water – WHPAs, areas served by private wells;
 - * Other uses, e.g., industry, agriculture; or
 - * Source of water for surface waters.
- C) A policy to prevent degradation of groundwater quality.

(2) Communities with Dependence on Groundwater

Communities with a dependence on groundwater for drinking water supply will have the additional requirement to assess the threats to groundwater quality and to provide measures to protect groundwater quality as described below in (A) – (C). DEM has determined that 12 communities have minimal or no dependence on groundwater for drinking water and will be exempt from these further requirements. However, these communities are strongly encouraged to enact protection measures that they feel are appropriate as part of an overall approach to water resources protection in their community. The 12 exempted communities are:

Bristol	East Providence	Newport	Providence
Central Falls	Johnston	North Providence	West Warwick
Cranston	Narragansett	Pawtucket	Woonsocket

The remaining 27 communities with a dependence on groundwater must include the following in the comprehensive plan in addition to the items in 1) A-C above:

(A) A map of the groundwater resources in the community.

(B) Assessment of threats to groundwater quality:

The Rhode Island Department of Health has conducted Source Water Assessments of public water supplies as required by the United States Environmental Protection Agency. The assessments indicate the vulnerability and susceptibility of the public water supplies in the state to potential sources of pollution. A summary of the results of the assessment, including recommended protection strategies, is to be included in the comprehensive plan.

For future updates when the Department of Health assessments become out of date, communities will have to provide an overview of the land use in the areas of concern and the potential threat this land use presents to groundwater. However, a more detailed inventory and assessment as recently done by the Department of Health Source Water Assessment Program is recommended in order to more effectively implement the chosen protection strategies (see below).

(C) Measures to protect groundwater quality within WHPAs and other groundwater sensitive and groundwater dependent areas of the community, including the following:

- Identification of protection strategies, which must at minimum, include a strategy for public education that encourages groundwater protection. Protection strategies include planning and zoning requirements, land conservation, land development standards, onsite wastewater management programs, regulation of use and storage of hazardous materials, and education;
- Where appropriate, address the need to coordinate with neighboring communities, water suppliers, and states for protection of shared groundwater resources and recharge areas; and
- Procedure for implementing the chosen strategies.

For more information, visit the DEM website at www.dem.state.ri.us or contact Ernest Panciera at the Office of Water Resources at (401) 222-4700 x7603 or ernie.panciera@dem.ri.gov.