

# Rhode Island Source Water Assessment Program

## Volunteer Opportunities with URI Cooperative Extension

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The URI Cooperative Extension and the RI Department of Health have developed a two-prong approach to citizen involvement in the Source Water Assessment Program (SWAP). Some volunteers will inventory land use changes and potential sources of pollution within the public water supply protection areas. Others will provide input on the risk assessment model and analysis options. URI Cooperative Extension has a long history of training and educating community volunteers, and we are happy to partner with the RI Dept. of Health in this effort.

We are offering two different volunteer opportunities--**Inventory** and **Assessment**. Each group of volunteers will train and work at different times and meetings will be scheduled to allow participants the option to be involved in both phases of the project if they wish.

Please read the following summaries to learn what is expected of an **Inventory** Volunteer and an **Assessment** Volunteer. If you have any questions, please do not hesitate to contact any of the Cooperative Extension Staff.

### **Job Description 1: Inventory Volunteer (7--10 hours total over a one--month period).**

The purpose of the land use inventory process is to confirm and update land use, as well as identify “high risk” land use activities within the public water supply protection areas (wellhead protection areas and surface reservoir watersheds). The URI Cooperative Extension Home\*A\*Syst Program will provide the training and materials needed to conduct the inventory. Working in pairs, volunteers will be assigned to a specific area and will conduct a “**windshield survey**”, comparing current land use to that indicated on 1995 land use maps (which we will provide). Volunteers will also note “high risk” land use activities that have the potential to use, store, or generate certain contaminants (a coded list of these land uses will also be provided). This updated information will provide us with a more accurate picture of potential risks to your community’s water supplies.

**Training Workshop (2 Hours, Evening)** - Introduction to the Source Water Assessment Program; learn basics about groundwater and wellhead protection areas, watersheds and the hydrologic cycle; review training packets to learn how to: read and work with maps, identify land use changes, identify high risk land uses, conduct a “windshield survey”.

**Conduct Land Use Inventory over 3--week Period (work in pairs on your own time)** - Contact CE staff for assistance or answers to questions at any time. CE staff makes follow-up calls two weeks after the training workshop to status progress.

**Meeting to Collect Land Use Inventory Results (1 Hour)** - Briefly review land use inventory maps and data with CE staff; clarify final questions or discrepancies; complete a volunteer evaluation of land use inventory process.

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## **Job Description 2: Assessment Volunteer (6--9 hours total over a four to five month period).**

The purpose of the assessment process is to systematically study natural and land use related factors that affect pollution risks to drinking water supplies. Assessment volunteers will work with Lorraine Joubert and staff of the URI Cooperative Extension Municipal Training/NEMO Program to apply the *MANAGE* Risk Assessment Method.

*Assessment Volunteers are needed to:*

- > Identify local land use issues and protection priorities in the watershed.
- > Assist in selecting management options for analysis.
- > Review assessment products.
- > Develop recommendations for future action.

MANAGE (Method for Assessment, Nutrient loading And Geographic Evaluation of watersheds) uses computerized mapping to identify, evaluate, and display pollution problems. The approach uses computer-generated maps to identify landscape features and land development patterns having the greatest potential to affect local water resources. We overlay high intensity land uses most likely to generate pollutants along with natural characteristics conducive to contaminant movement. The resulting overlap of high intensity land use and problem soils rapidly pinpoints pollution "hot-spots"— high-risk areas for movement of pollutants to either groundwater or surface waters. These hot spots generally comprise a relatively small land area but contribute the large majority of pollutants. By directing management actions to these problem sites, we can identify cost-effective remediation or pollution prevention actions.

In addition to the visual display of non-point pollution problems, the MANAGE spreadsheet generates estimates of nutrient inputs to surface water runoff and to groundwater as one indicator of pollution risk. These estimates, in combination with other watershed characteristics, are used to compare the relative impacts of various land use patterns and management practices. The future land use and pollution control scenarios tested by the analysis will be developed in cooperation with the assessment volunteers.

The anticipated schedule will include **two or three, 2-hour meetings (late afternoon) over the course of a few months** as follows:

**Meeting 1** - Review assessment process, review existing data. This meeting may be excluded depending on the current information and activities that may be occurring with water quality in your community.

**Meeting 2 (Scheduled 1 month following collection of Land Use Inventories)** - Examine computer assessment results for current and future conditions and decide on management options to model. **Depending on the extent of existing information and activities, Meetings 1 & 2 may be combined and scheduled for this time.**

**Meeting 3 (Scheduled 4 to 6 weeks after meeting 2)** - Examine computer assessment results for management options and discuss factors that the computer model does not consider. Identify data gaps and strategies to fill them, discuss management and remediation strategies, and agree on next steps for the local group.

***Job Requirements:*** No special experience needed! We will provide all the information, materials, and training you need. The only requirement is an interest in the quality of drinking water in your community.

*For more information contact URI Cooperative Extension Staff or view our website: [www.uri.edu/ce/wq](http://www.uri.edu/ce/wq)*

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