



FACT SHEET

Guide to Updating Source Water Assessments and Protection Plans

Overview

The *Guide to Updating Source Water Assessments and Protection Plans* provides instructions to water suppliers in updating the Water Quality Protection Component of the Water Supply System Management Plans. The purpose of this guide is to assist water suppliers in meeting requirements of Section 8.03, focusing on the pollution source inventory and susceptibility determination. The method outlined in the Guide uses the initial susceptibility determination developed by RI HEALTH under the 2003 Source Water Assessments as baseline data to reflect current conditions and compare change in threat of contamination.

Advantages to water suppliers in using this method

- Simplifies the assessment process by outlining minimum requirements and methods.
- Describes data sources and alternative methods to inventory potential sources of contamination. Where possible, describes both geographic information systems (GIS) and manual mapping methods.
- Provides a standard, easily duplicated method to track water quality trends.
- Relies on readily available information for a relatively simple and low-cost assessment.

Pollution Risk Rating

A rating system is used to summarize results and rank the relative susceptibility of the water body to contamination. The pollution risk factors are slightly different for Wellhead Protection Areas and Surface Water Supplies, as listed below.

Wellhead Protection Areas

1. High intensity land use throughout the WHPA.
2. Pollution sources within inner protective radius (400' or 200') of well.
3. Pollution sources per acre throughout WHPA, excluding inner protective radius.
4. Maximum nitrogen (NO₃-N) concentration in last 5 years.
5. Bacteria detects in source water within the last 5 years.
6. History of contaminant detects within last 5 years.

Surface Water Supply Reservoirs

1. High intensity land use throughout the watershed
2. Pollution sources within a 200 ft. buffer to the reservoir and tributaries.
3. Pollution sources per acre throughout the watershed, including the 200 ft. buffer to the reservoir and tributaries.
4. Reservoir nutrient enrichment status.
5. Compliance with water quality criteria.
6. History of contaminant detects within last 5 years.

Summary

The *Guide* outlines minimum requirements for updating the water quality protection component focusing on the threats to the source area. Results are summarized in a Pollution Risk Spreadsheet with supporting data tables (excel format), several maps, and a narrative describing assessment results and change from the previous assessment. Water suppliers are encouraged to evaluate additional risk factors that may be a concern in particular source areas, such as change in impervious cover and potential for future development for example.

Most importantly, the water quality component must include an evaluation of progress in protecting the source area and implementation strategy, as outlined in Section 8.3, subsections 4 to 7. These sections comprise the core of the protection component and should be developed in close cooperation with municipal officials governing land use within the source area.

Resources

The 2003 Source Water Assessment results are available at the URI Cooperative Extension NEMO website at the URI Source Water Assessment Program Program homepage at <http://www.uri.edu/ce/wq/RESOURCES/dwater/Assessments/index.htm> (click onto Full Reports, find report for your supply, then select Appendix). Factsheets and maps of each source area are also available at this site.

SWAP CDs with the final report, factsheet, GIS maps and data files were also distributed to water suppliers. The CD should have the report and appendix in word format, where the land use table in Appendix F may be converted to an excel spreadsheet. RI Water Resources Board will provide a copy of the CD to each supplier updating the Water Supply System Management Plan.

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