

Summary
Source Water Assessment Program
Draft Guidance, Chapter 2

This is a summary of the *State Source Water Assessment and Protection Programs Guidance, Draft Guidance*, April, 1997, Chapter 2. (Guidance). Chapter 2 of the Guidance describes the specific elements that are expected in a State SWAP. For information on Source Water Protection, and related SWAP issues, please refer to the Guidance. For more information on any topic described in this summary, please refer to the Guidance pages noted. The summary may change based on the Final Guidance. For a copy of the draft or final (when available) Guidance, please call the Safe Drinking Water Hotline at 1-800-426-4791.

Introduction

The Safe Drinking Water Act (SDWA) Amendments of 1996, P.L. 104-182, add a new provision that requires States to develop, submit to the U.S. EPA for approval, and implement Source Water Assessment Programs (SWAPs). State SWAPs are to be submitted to the U.S. EPA within 18 months after the final SWAP guidance is published (August 6, 1997). Once the SWAP submittal is approved by EPA, States have 2 years (plus a possible 18 month extension) to complete the SWAP delineations, the contaminant source identification within the delineated areas, and the susceptibility assessments. All States with primacy for the Public Water Supply Supervision Program are required to submit a SWAP to EPA for approval.

Elements of a State SWAP

(Pages 17, 85, 104)

The submittal must meet the requirements under Section 1453 of the SDWA and other information described in the final SWAP guidance. Requirements include:

Delineations - Describe the approaches used to define the boundary of Source Water Protection Areas (SWPAs) - that is, the land area that contributes to the source of a Public Water System's (PWS's) drinking water. Describe how maps of the delineated areas will be developed and maintained.

Contaminant Inventory - Describe how known and significant potential (see definition in Guidance) sources of contamination that lie within the delineated area will be inventoried.

Susceptibility Analyses - To the extent possible, describe how the potential for the inventoried contaminants to reach the PWS well or intake will be analyzed. Factors to consider include hydrogeologic conditions, characteristic of the contaminant sources and any mitigation practices in place.

Waters outside of a State's boundary - Describe how the State will conduct assessments for boundary and multi-State rivers, lakes, and ground water basins.

Public Participation - Describe how the public will be involved in the SWAP development and implementation.

Public Information - Describe how the information collected will be made available to the public.

Timetable and Priorities - Describe the plan for undertaking the above efforts including the goals, priorities, schedule for completion, resources to be committed, etc. If needed, describe why an extension is required to complete the work.

Source Water Protection Program - As part of the submittal, describe plans for developing a source water protection program. If none will be developed, this must be stated.

Additional - Describe state and local responsibilities for the SWAP; delegation; policies for coordination between Tribes and other States; coordination efforts between SWAP and other federal programs; financing for the SWAP; reporting progress to U.S. EPA; and how assessments will be updated to match future federal Regulations.

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Public participation in the development of a State SWAP - what is adequate?

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The purpose of the public participation process is to build public support for drinking water supply protection and to ensure that the State's SWAP can support local protection efforts.

To comply with this aspect, prior to the SWAP submittal for approval, State's must:

- conduct public hearings, workshops, focus groups or meetings, and
- establish a technical advisory committee and a citizens advisory committee.

Delineations - what is adequate?

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The State SWAP must describe how the ground water, surface water and ground water/surface water sources for all PWSs will be delineated. However, States may choose to vary the delineation methodologies based on the size or type of PWS. States may also prioritize, based on type of system, which will be delineated first.

Ground water PWS

Delineations completed under a U.S. EPA approved Wellhead Protection Program (WHPP) are sufficient for the SWAP. For States without an approved WHPP, delineations must be consistent with the methods allowed for an approvable WHPP (see *Guidelines for Delineation of Wellhead Protection Areas*, U.S. EPA, June 1987). States should recognize that over the next few years, several rules will be promulgated which may influence how States delineate their ground water sources. These Rules include the *Ground Water Disinfection Rule*, *Underground Injection Control Rule for Class V Wells*, and the *Chemical Monitoring*

Reform Rule.

Surface water PWSs

(Pages 23, 86)

States have flexibility to determine the size of the delineated topographic area. They may use varying hydrologic, hydrogeologic, and management criteria in determining the delineated area. However, States may want to establish buffer/setback zones, time-of-travel zones and/or use modelling techniques. With any method, States should consider whether new and existing regulations will impact the delineation methodologies. These Rules include the *Chemical Monitoring Reform Rule*, *Guidelines for Permanent Monitoring Relief*, the *Enhanced Surface Water Treatment Rule* and the *Underground Injection Control Rule for Class V Wells*.

Contamination Source Inventories - what is adequate?

(Pages 25, 90, 92)

The purpose of the inventory is to identify land uses or activities that could potentially degrade water quality and to note their location relative to the well or intake in order to conduct a susceptibility analysis. The land uses and other activities of concern are those that may release contaminants for which an maximum contaminant level (or treatment technique) is established or the State has determined the contaminant to be a health threat. States must list the contaminants for which it will be conducting an inventory. When making the inventory available to the public, States should identify, for point sources, the name of the owner and the street address and for non-point sources, identify the name of the owner and street address or include a description of the geographic area where located.

For a ground water based PWS, contaminant source inventories conducted under an approved WHPP are adequate. For States without an approved WHPP, the policy must be consistent with the U.S.EPA WHPP.

For a surface water based PWS, the entire delineated area shall be assessed. For some large river systems however, practical contamination source inventories may focus on sources in 'critical areas' where there is a high and reasonable potential for impacting intakes.

For all PWSs, States should consider the impact that future and existing regulations (mentioned above) may have on the contaminant inventory and describe the plan for updating the assessments.

Susceptibility Analysis - what is adequate?

(Pages 26, 92)

A susceptibility analysis is required to determine how susceptible the PWS is to the contaminants and potentially significant contaminants inventoried within the delineated area. Each State SWAP should describe how the susceptibility analysis will be accomplished taking into account hydrogeologic factors, characteristics of the contaminant and the contaminant source, and the existence and effectiveness of any mitigation measures. For community water systems, individual analyses must be completed for each source. However, for non-community water systems, a more generalized level of analyses may be completed.

States may use analyses completed as part of a WHPP, ground water related vulnerability maps, and other data that has or will be collected on the characterizations of ground or surface waters. While modelling or

monitoring of the source waters is not required, States should ensure that the hydrogeology and hydrology of the SWPA are considered in the analyses.

Updating the Assessments

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States should include a brief description of the process they will use to update assessments when new Rules are promulgated: *Ground Water Disinfection Rule, Chemical Monitoring Reform Rule, Underground Injection Control Rule for Class V Wells, Enhanced Surface Water Treatment Rule.*

Assessments for Boundary Rivers, Multi-State Rivers and EPA's Role

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State's must describe how these areas will be delineated, an inventory conducted and a susceptibility analysis completed. Two options are available which may provide a more practical approach:

- Designate a critical area upstream of the drinking water intake for which an inventory and analysis can be completed.
- Conduct an inventory and analysis for that portion of the watershed within the State boundary.

For these areas, States should consider developing a policy for contingency plans. The U.S. EPA Regional offices, as requested by the States, can facilitate discussions and provide other assistance to encourage cooperation among States to further the SWAP goals.

SWAP Time Frame
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