

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Water Supply and Wastewater Management

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TITLE: Screening Criteria on Water Quality/Quantity Impacts for Drinking Water Permits

EFFECTIVE DATE: July 24, 2004

AUTHORITY: Pennsylvania's Safe Drinking Water Act (35 P.S. §721.1 *et seq.*) and regulations at Title 25 Pa. Code Chapter 109

POLICY: Department of Environmental Protection (DEP) staff will follow the guidance and procedures presented in this document to direct and support implementation of permit issuance and tracking activities under the drinking water management programs.

PURPOSE: The purpose of this document is to establish a rational and reasonable basis for staff decisions which will promote quality, timely and consistent service to the public and regulated community.

APPLICABILITY: This guidance will apply to all public water systems requiring a public water supply permit from DEP.

DISCLAIMER: The policies and procedures outlined in this guidance are intended to supplement existing requirements. Nothing in the policies or procedures shall affect regulatory requirements.

The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of DEP to give the rules in these policies that weight or deference. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

PAGE LENGTH: 4 pages

LOCATION: Volume 22, Tab 12

DEFINITIONS: See Title 25 Pa. Code Chapter 109

INTRODUCTION

DEP is authorized to issue permits to public water systems under its drinking water programs pursuant to the Safe Drinking Water Act and Title 25 Pa. Code Chapter 109. Section 721.7(j) of the Safe Drinking Water Act, defines DEP's authority to issue permits as follows:

The department shall have the power to grant a permit if it determines that the proposed water system is not prejudicial to the public health and complies with the provisions of this act, the regulations adopted hereunder, and all other applicable laws administered by the department ...

In the case of Oley Township, et al. vs. Commonwealth of Pennsylvania, Department of Environmental Protection and Wissahickon Spring Water, Inc. Permittee (EHB Docket No. 95-101-MG), the Environmental Hearing Board (EHB) found that DEP also has an affirmative obligation to make a determination concerning the effect, if any, of projects permitted under the Act on adjacent water resources.

In order to satisfy the standard set forth in the Oley Township decision, screening procedures are needed to help DEP and permit applicants evaluate the magnitude and likelihood of potential impacts occurring on adjacent water resources. The procedures set forth in this guidance will help to identify those projects which are minor in scope and do not require additional evaluation beyond the initial screening procedures set forth herein. For those projects that are determined to potentially have significant adverse impacts on adjacent water resources, DEP intends to develop additional procedures to evaluate and, if necessary, address such impacts.

The screening procedures set forth in this guidance will be used to determine if permit applications for the development of new or expanded ground or surface sources of supply should be approved or if further evaluation is necessary to determine the impact of the proposed project on adjacent water resources. This screening process is designed:

- To determine which water resources may be significantly impacted by the development and use of the new or expanded sources;
- To assess the magnitude and significance of potential impacts on the identified vulnerable water resources; and
- To determine that the development and use of the new or expanded source complies with the provisions of the Clean Streams Law.

Identifying Potentially-Impacted Water Resources

Effects on water quality may result from induced reductions in water quantity. For the purposes of these screening procedures, reviews will be limited to the potential effects of water withdrawals on flows in streams or from springs and water levels in wetlands. For wetlands, it will be presumed that the potential effect is limited to the zone of influence. Water Supply Management (WSM) regional program staff will identify potentially impacted water resources using Groundwater Information Systems (GIS), hardcopy, or other available information, including information which may be obtained by a site inspection/review.

Assessing Magnitude of Impacts on Flows

An initial assessment of the magnitude of the impact on stream or spring flows will be made based upon the 7-day, 10-year low flow (Q_{7-10}) at the point of impact. Any effects on stream or spring flows will not be considered significant if:

- a. The quantity of surface or groundwater withdrawal is less than 10 percent of Q_{7-10} -- This requires only a comparison of the quantity of the requested withdrawal and the computed Q_{7-10} at the point of impact; or
- b. The zone of influence resulting from a groundwater withdrawal controls less than 10 percent of the drainage area at the point of impact -- This requires a determination, through modeling or other acceptable procedures, of the area and shape of the zone of influence and the drainage area which is controlled by the cone of depression; or
- c. The reduction in flow that results from a groundwater withdrawal is less than 10 percent of Q_{7-10} -- This requires a more rigorous analysis to determine the quantity of reduction in flow that will occur during low flow periods as a result of the withdrawal.

Where the potential for significant impacts to flows is not eliminated on the above bases, the WSM regional program staff will undertake a more extensive evaluation. This evaluation will utilize best available analytical tools, including Water Allocation Program procedures to determine the expected magnitude of the impact on the water resource. If more detailed field investigation is required to make a decision, the project applicant will be notified of the need for such studies in order to continue processing the application for approval.

Determining Stream and Spring Impact Compliance with the Clean Streams Law

After evaluating all available information, including the results of special studies conducted by the project applicant, the WSM regional program staff will employ procedures applicable to the Water Allocation Program in order to develop measures to protect flows and aquatic resources.

Assessing Magnitude of Impacts on Wetlands

If wetlands are identified within the zone of influence of a groundwater source, notification will be made through the Assistant Regional Director (ARD) to the Regional Office Soils and Waterways program staff to conduct an assessment of the potential wetlands impact from the proposed source development. Effects on wetlands will not be considered significant if:

- a. The water source for the wetland is surface water runoff resulting from precipitation or seasonal spring thaws; or
- b. The wetland is a perched system on a clay lens, impervious soil body or geologic formation that isolates the wetland from other groundwater resources; or
- c. The wetlands are located on the floodway or floodplain of a stream and the proposed quantity of the surface or groundwater withdrawal is less than 10 percent of Q_{7-10} of the stream; and do not serve as habitat for federal or state listed threatened or endangered species.

Where the potential for significant impacts to wetlands is not eliminated on the above bases, a more extensive assessment will be conducted. The WSM regional program staff will provide hydrogeologic technical assistance, as necessary, to aid in this assessment. This assistance would include modeling or other procedures as may be necessary to determine the impacts to water levels in wetlands that may result from proposed groundwater withdrawals. If more detailed field investigation is required, the ARD will advise the project applicant of the need for such studies in order to continue processing the application for approval.

Determining Wetland Impact Compliance with the Clean Streams Law

After evaluating all available information, including the results of special studies conducted by the project applicant, the regional office program staff will recommend limits on water level reductions in the wetland necessary to comply with the Clean Streams Law. The WSM regional program staff will develop measures necessary to achieve those limits.

Permit Decision

The ARD will have the responsibility for making the final decision on issuance of the source permit, based upon the findings and recommendations submitted by the lead program(s) and communicate that determination to the project applicant with the basis for the decision.