

Executive Summary
Guidelines for Identification of Critical Water Planning Areas
Document Number: 392-2130-014

Introduction

The Water Resources Planning Act, Act 220 of 2002 (Act), requires that the State Water Plan be updated by March 2008. The Act also provides for identification of Critical Water Planning Areas (CWPAs) as part of the State Water Plan. It defines a CWPA as a “significant hydrologic unit where existing or future demands exceed or threaten to exceed the safe yield of available water resources.”

The Act established a Statewide Water Resources Committee (Statewide Committee) to assist the Department in developing the State Water Plan. The Statewide Committee is also charged with reviewing and commenting on regulations proposed by the Department under the Act and recommending policies and guidelines for the development of the State Water Plan. The Act also establishes six Regional Committees in each of the following major river basins: Delaware River, Upper/Middle Susquehanna River, Lower Susquehanna River, Ohio River, Potomac River and Great Lakes

The Statewide Committee formed the Critical Water Planning Area (CWPA) Subcommittee in 2004 to work with the Department in developing technical guidance. The Subcommittee membership consisted of Statewide Committee members and those designated by a Statewide Committee member. Several Regional Committee members were part of the CWPA Subcommittee because they either were a Statewide Committee member or were designated by a member.

The Department and the CWPA Subcommittee spent approximately one year developing the draft Guidelines for Identification of Critical Water Planning Areas document, obtaining comments from the Statewide Committee and Regional Committee members as it was developed. Comments were also received verbally from the public as the document was discussed at the Committee meetings, which are open to the public.

The Guidelines for Identification of Critical Water Planning Areas (Document Number: 392-2130-014) was published in the PA Bulletin on Aug. 19, 2005 and open for public comment for 30 days. Written comments were received from four commentators. Their comments included general comments regarding the entire guidance document, comments on details of the process and comments on specifics of the criteria.

The draft guidance document contained an introduction, brief language on the authorization of CWPAs, a chapter on the process and a chapter on the criteria. Based upon the comments received and further review, the draft guidance document has been reorganized as follows: Chapter 1 was expanded to include the statutory basis of the committees and their role, the Criteria Chapter was reversed with the Process Chapter, no substantive changes were made to the content of the Criteria Chapter and many changes

were made to the Process Chapter in order to clarify the roles and responsibilities of the various entities involved.

Summary of Final Guidance Document

The guidance provides criteria for identifying a CWPA and the process by which a CWPA will be identified and designated by the Statewide Committee and the Secretary.

Screening and Review Criteria

The criteria center around two questions, derived from the act, at least one of which must be answered in the affirmative in order to consider an area for designation. They are:

1. In the relevant hydrologic unit, will existing or future demands, inclusive of both withdrawal and nonwithdrawal uses, over the reasonably foreseeable future (as described below), considering the expected location and timing of those demands, and any constraints on those demands, exceed or threaten to exceed the amount of withdrawn water that would:
 - a. *impair the long-term utility of the water resource such as dewatering an aquifer; or*
 - b. *impair the long-term water quality of the water resource; or*
 - c. *induce a health threat; or*
 - d. *cause irreparable or unmitigated impact upon reasonable and beneficial withdrawal and nonwithdrawal uses?*

2. In the relevant hydrologic unit, will the rate of net withdrawals to serve existing or future demands exceed or threaten to exceed the long-term rate of natural and artificial replenishment of the resource, including consideration of changes over time to recharge areas?

The review criteria include:

1. Planning Area Size (Significant Hydrologic Unit) – Generally, 15 square miles should be the minimum-size hydrologic unit considered significant for CWPA designation.
2. Maximum Time Horizon – Generally, projected future demands should be based on no longer than five-year projections for CWPAs proposed and recommended prior to completion of the regional plan. CWPAs identified through, and recommended upon completion of, the regional planning process should be based on projections extending no more than 15 years into the future.
3. Existing and Future Demands – Demands on the water resources occur as both withdrawal and non-withdrawal uses, including water quality considerations. Water budgets are a tool for assessing the adequacy of available water resources and must account for net withdrawals.

- a. Population Projections – Population projections should generally be consistent with State Water Plan projections.
 - b. Withdrawal and Non-Withdrawal Uses – Withdrawal and non-withdrawal uses should be consistent with statewide water use statistics for use categories or other reliable information. Calculations should be based on net water withdrawals, accounting for transfers, consumptive water losses, storage and return flows, and they should account for existing permit requirements for passby and conservation release flows, where applicable, and should consider seasonality, interruptibility and water quality factors.
4. Safe Yield of Available Resources
- a. Watershed Water Budget – Withdrawals, return flows and storage, including both surface and ground water, should be used to derive a complete water budget for the proposed Critical Water Planning Area, with the resulting balance determining whether all cumulative withdrawal and non-withdrawal uses and water quality objectives can be met.

Water Quality – To the extent that pollutants limit the availability of adequate water supply, water quality should be considered in determining the safe yield of a water source. Conversely, withdrawals should not be a cause of pollution or impair the long-term water quality of the resource.
 - b. Aquatic Resource Uses – For purposes of screening criteria for identifying potential CWPAs, the total cumulative unmitigated net withdrawals should not exceed, or result in, at least one of the following values or conditions:
 - Repeated acute dewatering of a stream reach, causing significant impact on aquatic resources
 - Class A trout streams (carbonate) – 5% mean annual habitat loss
 - Class A trout streams (noncarbonate) – 5% mean annual habitat loss
 - Class B trout streams – loss of Class B biomass rating or 10% mean annual habitat loss
 - Class C and D trout streams – loss of Class C or D biomass rating or 15% mean annual habitat loss
 - d. Other Critical Uses – Support of other critical uses (for example, but not limited to: protected and statewide uses as defined in 25 PA Code Chapter 93, threatened or endangered species, migratory fish, other fisheries management objectives of the Pennsylvania Fish and Boat Commission, public water supply, white water rafting, recreational uses, important regional economic uses, etc.) may result in different flow criteria than those provided above, and should be judged on a case-by-case basis.

Process

The guidance describes the following processes to nominate, review, recommend and designate Critical Water Planning Areas, whereby Regional Committees may receive CWPA nominations based on evidence already available or developed in the State Water Planning process and may recommend significant hydrologic units for designation as CWPA. The designation process consists of the following five stages:

- Stage 1 - A nomination process – DEP will receive nominations from appropriate persons or entities and conduct a completeness review of required information. The guidelines describe the information required to nominate a CWPA.
- Stage 2 – An initial screening and prioritization process – DEP will review nominations for data sufficiency for initial screening, the Regional Committee will decide whether to add the nomination to the prioritized regional list of nominations and if added forward the nomination to the Statewide Committee for inclusion on the prioritized statewide list of nominations;
- Stage 3 - A data verification, development and review process, by DEP – DEP will verify data submitted, develop additional data as needed, complete a review of the nomination and provide a review memorandum describing its conclusions to the Regional Committee;
- Stage 4 - a review and recommendation process, by the Regional Committee – Regional Committee will review the nomination in conjunction with the DEP review memorandum, hold a public hearing, consider public comments, and decide whether to recommend designation to the Statewide Committee; and
- Stage 5 - a review and designation process, by the Statewide Committee and DEP Secretary – Statewide Committee will review the recommendation from the Regional Committee and decide whether to recommend designation to the Secretary of DEP, and the Secretary will decide whether to designate the nominated watershed(s) as a CWPA.