

Q & A: General Goals and Requirements of Wellhead Protection

What is wellhead protection?

Wellhead protection is a method of preventing contamination of a public water supply well by effectively managing potential contaminant sources in the area which contributes water to a public water supply well.

What authority does the Minnesota Department of Health have to implement wellhead protection?

The department is granted authority under Minnesota Statutes, Section 103I, subdivision 5, and Minnesota Rules, parts 4720.5100 to 4720.5590. The statutory authority was granted in 1989 with the passing of the Minnesota Groundwater Protection Act, which was a response to the 1986 amendment to the federal Safe Drinking Water Act. The rules governing wellhead protection were adopted in November 1997.

What is the benefit of wellhead protection?

A very clear benefit of wellhead protection is the emphasis on the prevention of drinking water contamination versus the remediation of a contaminated drinking water supply. The cost of prevention is less than the cost of remediation.

Does this rule affect private wells?

No. It only affects public water supply wells.

What is the definition of a public water supply well?

A public water supply well provides drinking water for human use to 15 or more service connections or to 25 or more people for at least 60 days a year. A public water supply well is further defined as either a community or noncommunity water supply well.

- A community water supply well serves 15 or more service connections used by year-round residents or at least 25 year-round residents. Examples include municipalities, subdivisions, and nursing homes.
- Noncommunity water supply wells are divided into two groups:
 - A nontransient noncommunity supply well serves at least 25 of the same people over six months of the year. Examples include schools, factories, and hospitals.
 - A transient noncommunity well serves all other public water systems. Examples include restaurants, gas stations, churches, parks, and campgrounds.

Is this voluntary?

No. All public water suppliers will be required to implement wellhead protection measures as specified in Minnesota Rules, Chapter 4720.

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What is required of public water suppliers as the regulated group?

All public water suppliers are required to manage an inner wellhead management zone, a 200-foot radius surrounding a public water supply, by:

- Maintaining the isolation distances defined in the state Well Code (Minnesota Rules, Chapter 4725) for newly installed potential sources of contamination.
- Monitoring existing potential sources of contamination that do not comply with the isolation distances defined in the state Well Code.
- Implementing wellhead protection measures for potential contaminant sources in the inner wellhead management zone.

In addition to the inner wellhead management zone requirements, owners and operators of community and nontransient noncommunity wells must prepare a wellhead protection plan which includes:

- A map showing the boundaries of the delineated wellhead protection area using the five criteria specified in the rule.
- A vulnerability assessment of the well and the wellhead protection area.
- An inventory of potential sources of contamination within the wellhead protection area based on the vulnerability assessment.
- A plan to manage and monitor existing and proposed potential sources of contamination.
- A contingency strategy for an alternate water supply should the water supply be disrupted by contamination or mechanical failure.

Does a public water supplier have to own all the property within the inner wellhead management zone (200-foot radius of a public water supply well)?

No. There is no requirement that a public water supplier own the property within the 200-foot radius which forms the inner wellhead management zone.

What impact does wellhead protection have on submitting plans for constructing a new community water supply well?

The current procedures for submitting pre-construction plans to the Minnesota Department of Health, Administrative Unit, and the driller's notification of intent to drill to the Well Management Section remain the same. The only change is a preliminary delineation of the wellhead protection area and assessment of the land use, based on existing data, must be completed and submitted with the pre-construction plans. This is required to assist with the siting of a new municipal well. This requirement does not apply to nonmunicipal community water suppliers nor to noncommunity water suppliers. The completion of a two-page form available from the Minnesota Department of Health will fulfill this requirement. A copy of this form can be obtained by calling 651-201-4700 or by visiting the website at:

<http://www.health.state.mn.us/divs/eh/water/swp/whp/forms/whparesaguide.pdf>.

Must contaminant source control measures be implemented before a wellhead protection plan is submitted to the department for approval?

No. The plan must identify the measures that will be used and when they will be implemented over a ten-year period, following department approval of the plan.

How much time is allowed to prepare a wellhead protection plan?

The minimum time is two years after entering the wellhead protection program. Additional six-month blocks of time are automatically awarded on a cumulative basis when (1) a system has multiple wells, (2) there is a lack of state and federal funding to support wellhead protection planning, (3) the public water supply system is privately owned, (4) the wellhead protection area is in more than two

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governmental jurisdictions, and (5) the pumping of a well in another system affects the boundaries of the wellhead protection area.

When is a public water supplier required to begin a wellhead protection plan?

In most cases, a public water supplier must begin preparing a wellhead protection plan when notified by the Minnesota Department of Health.

Municipalities which add a well to their system will be required to prepare a wellhead protection plan once the well is in service as a water supply. Existing wells serving community and nontransient noncommunity water supplies will be phased into the wellhead protection program as time and resources permit.

What support will the Minnesota Department of Health provide public water suppliers preparing a wellhead protection plan?

The Minnesota Department of Health is committed to providing technical support in the form of staff resources, training, guidance documents, and forms. Two staff members, a planner and hydrologist, will be assigned to each public water supplier at the time they enter the program. The level of support will vary depending on criteria such as the: staff and financial resources of the public water supply, governmental authority of the public water supplier, existing pumping test information, vulnerability of the geological setting, and level of support from local units of government and other organizations like the American Water Works Association and Minnesota Rural Water Association.

Part I

At the request of public water systems serving 3,300 people or less, the Minnesota Department of Health hydrologists will write that part of the wellhead protection plan related to delineating the drinking water supply management area and assessing well and aquifer vulnerability. The

department also provides: data processing, wellhead protection plan templates, letter templates, request for proposal templates for systems acquiring the services of a consultant, and a listing of contacts.

Part II

At the request of public water systems serving 500 people or less, the Minnesota Department of Health planners will offer to prepare the portion of the wellhead protection plan that directly deals with managing the drinking water supply management area if a Wellhead Protection Team is assembled. For systems serving more than 500 people, the Minnesota Department of Health planner will meet with the systems to develop a budget regarding the financial resources required to meet state wellhead protection rule requirements. Data on potential contaminant sources, templates, and other technical assistance tools will also be provided. A public water system serving more than 500 people, that can demonstrate a need, will receive state assistance to the level agreed upon by the Minnesota Department of Health.

There is no fee due to the state for assistance with wellhead protection planning, but public water suppliers are asked to provide assistance with planning tasks when possible; for example, verifying well locations and providing land-use histories.

Resources:

Minnesota Department of Health Website for Drinking Water Protection:

<http://www.health.state.mn.us/divs/eh/water/index.html>

Map of the Wellhead Protection Program Team Contacts:

<http://www.health.state.mn.us/divs/eh/water/org/swpstafmap.pdf>

Minnesota Rural Water Association Website:

<http://www.mrwa.com>