Wellhead Protection Programs for New Community Water Supply Wells

A community water supplier who is siting a new production well must develop a wellhead protection program (WHPP) in order to minimize the risk of contamination entering the nearby groundwater. The WHPP is approved by the New Hampshire Department of Environmental Services (NHDES) before the new well is connected to the system. Wellhead protection programs for small and large community water systems are required by New Hampshire Administrative Rules Env-Dw 305 and 302, respectively.

Components of a Wellhead Protection Program
A WHPP consists of three tasks: potential contamination source inventory, educational mailing, and Best Management Practice (BMP) inspections of potential contamination sources (PCSs). BMP Inspections are only required for large community systems, and are not required for small community systems.

All tasks are performed within the wellhead protection area (WHPA), typically established through the NHDES community well siting process. For most community wells, the WHPA is a circle centered on the well with a radius between 1,500 and 4,000 feet, depending on the well’s permitted production rate.

<table>
<thead>
<tr>
<th>Small Community Water System WHPP</th>
<th>Large Community Water System WHPP</th>
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<tr>
<td>• PCS inventory</td>
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<td>• Educational mailing to all properties within WHPA</td>
<td>• Educational mailing to PCSs ONLY</td>
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<td>• BMP inspections of PCSs</td>
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Beginning in 2018, all WHPP activities are due to be conducted every three years prior to July 1. For both small and large community water systems, WHPP activities are due by July 1, 2021 and every three years thereafter.

PCS Inventory
NHDES maintains a state-wide inventory of potential contamination sources (PCSs), listed in the table below. PCSs are human activities or operations upon the land surface that pose a reasonably foreseeable risk of introducing regulated substances into the environment in such quantities as to degrade the natural groundwater quality. In order to update the PCS inventory, first obtain a current list and map of PCSs within the WHPA from NHDES. The PCS inventory must be reviewed and updated with the results of the windshield survey to reflect current land use activities in the WHPA. Guidance on the windshield survey is available in WD-DWGB-12-3, “Performing an Inventory for Drinking Water Protection.”
Educational Mailing
After the PCS inventory is complete, the water system can perform the educational mailing. Small community systems must do the mailing to all homes and businesses in the WHPA (including any PCSs), while large community systems only need to do the mailing to PCSs within the WHPA. The mailing materials are provided by NHDES for use by water systems.

For small community systems, the mailing to residents and non-PCS businesses consists of:
- a cover letter and
- the Clean Drinking Water is Up to You pamphlet.

For both small and large community water systems, the mailing to PCSs consists of:
- a cover letter,
- the Clean Drinking Water is Up to You pamphlet,
- NHDES fact sheet WD-DWGB-22-20 “Preventing Groundwater Contamination at Gas Stations-What Municipalities and Water Suppliers Can Do,” (if applicable) and

Once the mailing is complete, submit the required documentation to NHDES for review.

BMP Inspections of PCSs
BMP inspections of PCSs are required for large community water systems only. The inspections shall be conducted to ensure that PCSs are storing and handling materials in such a way as to minimize the risk of groundwater contamination. Best Management Practices for Groundwater Protection, Env-Wq 401, spells out the storage and handling requirements for potential contaminants (see fact sheet WD-DWGB-22-4 “Best Management Practices for Groundwater Protection”).

Before conducting the required BMP inspections, it is important to have the proper authority. There are three options for obtaining authority:
- Local health regulation or zoning ordinance. A municipality may adopt a local health regulation through the board of selectmen (in towns) or city council (in cities). Alternatively, a zoning ordinance may be proposed and voted upon by the municipality at a public meeting. Adoption of a health or zoning code can provide a municipality the legal basis to conduct inspections and enforce best practices found within Env-Wq 401. Model language to adopt a groundwater protection zoning ordinance is available from NHDES’ Source Water Protection program webpage.
- Groundwater Reclassification. Under RSA 485-C, a water supplier or municipality may apply to NHDES to reclassify certain local groundwater resources. If a GAA or GA1 classification is approved by NHDES’s Commissioner, this provides the local entity the authority to conduct inspections and enforce Env-Wq 401. A Guide to Groundwater Reclassification is available online from NHDES’ website on the Groundwater Reclassification program page.
- Voluntary Inspections. If the wellhead protection area contains only a few PCSs, the water supplier could conduct the inspections in instances where the PCS owner voluntarily allows access. If the local inspector is denied access, the situation should be referred to NHDES.
Available Resources from NHDES

NHDES provides the following assistance in developing and executing WHPPs:
- Consultations to explain WHPP rules and answer any questions.
- Forms required to be completed to document WHPP activities.
- Form letters, fact sheets and pamphlets required for the educational mailing.
- Examples of local health ordinances.
- Training in how to conduct a BMP inspection and achieve compliance with BMPs.

For More Information

For more information regarding the community well siting process, please contact Andrew Koff at (603) 271-8866 or andrew.koff@des.nh.gov. For additional information regarding groundwater protection programs, please contact Pierce Rigrod at (603) 271-0688 or Pierce.Laskey-Rigrod@des.nh.gov. The Drinking Water and Groundwater Bureau can be contacted at (603) 271-2513 or dwgbinfo@des.nh.gov.

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Potential Contamination Sources (PCSs)

- Vehicle service and repair shops*
- General service and repair shops*
- Metalworking shops*
- Manufacturing facilities*
- Underground and aboveground storage tanks
- Waste and scrap processing and storage*
- Transportation corridors
- Septic systems (at commercial and industrial facilities)
- Laboratories and certain professional offices (medical, dental, veterinary) *
- Use of agricultural chemicals**
- Salt storage and use*
- Snow dumps
- Stormwater infiltration ponds or leaching catch basins
- Cleaning services*
- Food processing plants*
- Fueling and maintenance of earth moving equipment*
- Concrete, asphalt, and tar manufacture*
- Cemeteries
- Hazardous waste facilities*

* PCS categories subject to BMP inspections.
** Subject to BMPs developed and administered by NH Dept. of Agriculture, Markets and Food.

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For More Information

Please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.nh.gov or visit our website at www.des.nh.gov.

Note: This fact sheet is accurate as of September 2019. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.