

TCRPC

Planning Toolkit Fact Sheet

Wellhead Protection



INTRODUCTION

A wellhead is the component of a potable water well that sticks out above the ground. Topped off with a cap, wellheads are indicative of the complex groundwater sources that exist beneath us. The protection of wellheads and their associated water supply sources are critical for good groundwater quality and should be a part of any discussion when it comes to drinking water. Groundwater is the main drinking water source in Pennsylvania, where over a million domestic wells provide drinking water to approximately half of the population. This number is even higher in rural areas, where a lack of public water infrastructure means that private wells are the only option for drawing water. It might be surprising, then, that very few municipalities in Pennsylvania seem to have wellhead protection plans or groundwater protection ordinances within their codes.

BENEFITS

- Pollution prevention by proper wellhead protection is less expensive than water quality remediation
- Helps ensure safe drinking water for a large percentage of the population
- Co-benefits of being able to contribute to MS4 planning and other water quality requirements

DRAWBACKS

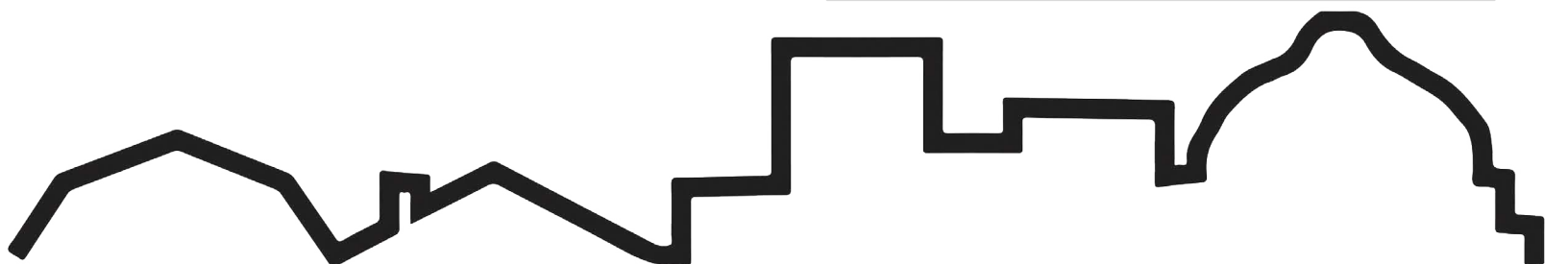
- Concerns on the local level about additional regulations
- Lack of implementation funding programs once established
- No wellhead construction design standards in Pennsylvania lead to confusion and inconsistency

In fact, Pennsylvania is the only state in the country that does not have official drilling standards for well construction. The concept of dedicated wellhead protection areas to protect domestic water supplies from contamination is often absent from the larger water quality discussions, which tend to focus on larger, watershed area planning tactics.

As local efforts are being found more and more valuable to overall water quality efforts, municipalities should have resources for wellhead protection at their disposal. Besides the benefits to drinking water quality for their citizenry and a general decrease in pollution, municipalities might also find ways to make groundwater efforts count towards larger Municipal Separate Storm Sewer System (MS4) or other stormwater programs.

PRACTICAL TIPS

- Explore free technical assistance programs provided by the Pennsylvania Department of Environmental Protection and other organizations
- Consider the establishment of a wellhead/groundwater protection zoning overlay to prevent the need for more intrusive mitigation efforts
- Encourage regular testing of private domestic wells and provide resources/educational materials
- Proactively protect wellhead areas or groundwater recharge areas that exist on county or municipal-owned land
- Be aware of point and non-point sources of pollution and contamination within the municipality
- Look for ways to incorporate wellhead/groundwater protection in to existing water quality efforts and MS4 planning.



RESOURCES

Technical Assistance and Funding

- **Pennsylvania Rural Water Association (PRWA) Sourcewater Protection Program**
- **PA DEP Sourcewater Protection Technical Assistance Program (SWPTAP)**
- **PA DEP Water Testing Page**
- **Pennsylvania Groundwater Information System (PaGWIS)**
- **Central Pennsylvania Sourcewater Protection Partnership**
- **Susquehanna River Basin Commission Monitoring and Protection Program**

Guides and Examples

- **Chester County - An Introduction to Wellhead Protection for Chester County Municipalities**
- **East Petersburg Borough, Lancaster County Wellhead Protection Program**
- **Maryland Department of Environment Model Wellhead Protection Ordinance**
- **Borough of Kutztown Wellhead Protection Ordinance**
- **Borough of Shrewsbury Wellhead Protection Model Ordinance**
- **Adams County Water Supply and Wellhead Protection Plan**
- **City of Franklin Wellhead Protection**
- **Bloomfield Borough Perry County**

RELATED TOOLKIT FACT SHEETS

- **Conservation Easements**
- **Agricultural and Natural Resource Protection**
- **Official Maps**
- **Stormwater Management**
- **Traditional Zoning Ordinances**

