



Protecting water quality with RIM Wellhead Easements

April 2016 Snapshots



Drinking water is in the news a lot recently. Access to clean, safe drinking water is vital for community health and wellhead protection is one way to help protect this resource. Wellhead protection manages potential sources of contamination in an area which supplies water to a public well.

According to the Minnesota Department of Agriculture, approximately 10% of Minnesota's 2400 community wells show at least some signs of contamination from human activities. These vulnerable aquifers are delineated by the Minnesota Department of Health, which assesses drinking water supply management areas for potential contamination. Some of these measures include testing for nitrates. Nitrates are used because they can be linked to activities at the ground surface, are commonly present when other contaminants are also present (so it's a good indicator something's going on), and are inexpensive to measure.

The Minnesota Board of Water and Soil Resources (BWSR) contributes to wellhead protection through the Clean Water Fund-supported Wellhead Protection Conservation Easement Program, part of the Reinvest in Minnesota (RIM) Reserve program. BWSR works to protect these vulnerable aquifers from groundwater contaminants by working with local soil and water conservation districts to enroll private landowners in RIM. Through this program, participating landowners receive payments to permanently retire land in agricultural production and establish native vegetation in a wellhead area. Parts of the wellhead easement program also help convert agricultural land back into wetland or prairie.

Using vegetation for nitrate and other chemical filtration is accomplished through retiring or converting these agricultural lands near drinking water supplies. The presence of nonagricultural vegetation, or living cover, can help trap chemicals before they leach into the water supply and has added benefits of erosion control and flood mitigation. Even more, the establishment of wellhead easements is a way to avoid pollution without having the expenses of treating contaminated water or drilling new wells.

There are currently over 250 identified and approved Wellhead Protection Areas in Minnesota. BWSR receives Clean Water Funding on a biannual basis for RIM easements in this program targeted to areas where vulnerability of the drinking water supply management

Easements in Action, Otter Tail County

The Doug Huebsch easements in Otter Tail County are an example of wellhead protection easements that offered multiple benefits to the community. The easements not only protect groundwater resources in the Perham Wellhead Protection Area, but will also provide conservation and restoration educational opportunities to school groups in the area. Huebsch, a county commissioner, has worked hand in hand with the Perham Sportman's Club and the East Otter Tail Soil and Water Conservation District to plan and establish the vegetative cover on the easement. The site not only provides water quality benefits, but is a community educational resource that will be enjoyed for years to come.



area is determined by the state Department of Health to be high or very high. Landowner interest in this program is always higher than the funding available.

Residents throughout the state rely on drinking water supplies that come from groundwater. Protecting these sources from contamination is vital and can be accomplished through programs such as RIM. Restoring areas within affected wellhead protection areas to native perennial vegetation can produce dramatic, measurable improvements in water quality. Since the beginning of the RIM Wellhead Protection Program in 2010, BWSR has funded 18 easements totaling 1,752 acres. What's more, if the Governor's Conservation Reserve Enhancement Program (CREP) proposal is accepted, as much as 5,000 acres of vulnerable drinking water supply management areas will be permanently protected. State agencies continue to work together on behalf of these vulnerable areas.