



An Ounce of Prevention

The City of Chippewa Falls, Wisconsin

Groundwater Guardian Featured Result Oriented Activity

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An ounce of prevention is worth a pound of cure. This old adage applies to the City of Chippewa Falls, Wisconsin. This Groundwater Guardian has implemented prevention strategies through a comprehensive Wellhead Protection Plan. The plan protects the City's drinking water supply by identifying the groundwater sources that supply the City wells, identifying and inventorying potential contaminant sources, and developing management strategies to deal with existing and potential future contaminants. As part of this plan, the City, along with Chippewa County, adopted ordinances to control activities that threaten groundwater quality and developed and launched an extensive public education program.

The City of Chippewa Falls Water Utility was recently recognized by the American Water Works Association (AWWA). The Utility's Wellhead Protection Plan earned the prestigious AWWA National Source Water Protection Award. Chippewa Falls was in competition for the award with many other water systems throughout the United States and Canada. Chippewa Falls was nominated for the national award after receiving the Wisconsin Water Works Association Achievement Award for Source Water Protection at the annual meeting last fall.

The wellhead protection ordinances developed for Chippewa Falls have been used as a model across the state. The plan was developed in conjunction with Chippewa County and assistance from the Department of Natural Resources (DNR), the University of Wisconsin

Eau Claire, and surrounding townships.

John Allen, Chippewa Falls Public Utilities Manager, emphasized the importance of the City's Groundwater Guardian team. "We have an active Groundwater Guardian Team that has been working on public education since 1996. This team helped to develop and distribute educational materials to all City



residents, with a special focus on persons within the 5 year zone of contribution residing inside and outside the City's corporate limit." The Chippewa Falls Groundwater Guardian Committee was also one of five other communities involved in The Groundwater Foundation's Applying Community Technology Today project. The project field-tested technology such as Geographic Information Systems (GIS) and Global Positioning Systems (GPS) for their usefulness in conducting a contaminant source inventory as part of a comprehensive Wellhead Protection Plan.

Troubled Waters

The City of Chippewa Falls recently settled a lawsuit

against a local fertilizer cooperative regarding nitrate contamination of city wells. The City alleged that fertilizer distribution operations on the cooperative site from 1979 until 2000 contaminated groundwater supplies, feeding the City's wells with nitrate.

The settlement required the defendants to pay the City a sum of \$525,000.

The City began to see elevated nitrate levels in the groundwater supplying its east wellfield in 1985, which provides the City with approximately 60 percent of its water. By 1994, nitrate levels began to persistently exceed the federal drinking water standard of 10 parts per million. In January 1997, the City Council authorized the water utility to install a nitrate removal system at the east wellfield.

The City of Chippewa Falls benefited from the settlement in two ways. The settlement award of \$525,000 partially reimbursed the City for the cost of the nitrate removal system. In addition, the City succeeded in increasing the attention to the potential for continued nitrate contamination from the cooperative site. The Wisconsin Department of Agriculture, Trade, and Consumer

Protection has required the cooperative owners to take steps to cleanup existing contamination and make facility and operational improvements to limit future groundwater impacts.

Chippewa Falls is working hard to avoid future problems, such as nitrate contamination. "The 1999 construction of the \$2.3 million nitrate removal plant at the east wellfield is a good example of situations that we are trying to avoid in the future," said Allen. "If the Wellhead Protection Plan had been implemented 20 to 30 years ago, it's very possible that the groundwater would never have been contaminated with nitrates, and we would not need the treatment plant," he added. Nitrate levels continue to consistently test above federal standards prior to treatment.

Chippewa Falls was also selected as one of ten Wellhead Protection programs for a case study in the *Demonstrating Benefits of Wellhead Protection Programs* project sponsored by the American Water Works Association Research Foundation. The Utility was also featured in a DNR educational video promoting the benefits of wellhead protection, and has participated in the Groundwater Guardian program since 1996.

The Groundwater Foundation congratulates Chippewa Falls for their excellent work on behalf of groundwater protection.

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