

Iowa Source Water Protection (SWP) Efforts

Scope: Local

Location: Iowa

CONTACT INFORMATION:

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SCOPE:

- Voluntary approach to creating a collaborative group of key local and state stakeholders, to develop a common understanding of a local source water problem, and develop and implement solutions.
- Iowa Department of Natural Resources (DNR) Two source water protection (SWP) programs: Targeted Community Water Supplies (CWS) and Non-targeted CWS
- Targeted SWP Program: Addresses CWS who have an existing contaminant and susceptible wells. The program conducts a groundwater site investigation and utilizes the findings for identifying the source of the contaminant and then utilizes the information for assisting the CWS in SWP planning and implementation. Currently Iowa has 262 Highly Susceptible CWS who are eligible for the Targeted SWP Program
- Non-targeted SWP Program: Addresses CWS with non- susceptible public wells and assists those CWS in developing a SWP plan

MEMBERS:

Several local communities have Source Water Collaboratives. Local members vary, depending on the community and contaminant of concern. For example, members of a collaborative in Remsen, Iowa include:

- Remsen Utilities Board and Remsen Utilities Superintendent
- Local landowners/farm operators
- Plymouth County Sanitation
- Plymouth Soil & Water Conservation District
- USDA Natural Resources Conservation Service
- Plymouth County Pheasants Forever with Youth Council
- Iowa Department of Natural Resources-Environmental Services Division
- Iowa Department of Agriculture & Land Stewardship, Division of Soil Conservation
- Watershed Improvement Review Board
- Sioux Rivers Resource Conservation & Development
- Iowa DNR Drinking Water State Revolving Fund

WATER CONCERNS:


- Nitrate in groundwater

STRATEGIES:

- Targeted CWS
 - Works with communities with current contaminant problem
 - Groundwater site investigation done to assist planning, resources, implementation of protection or BMPs
- Non-targeted CWS
 - Works with communities to proactively protect water sources
 - Carries out initial Source Water Assessments for all CWS in Iowa.

RESULTS:

- Remsen purchased the 21-acre field (source of nitrate) with a grant from the state Watershed Improvement Review Board and used a zero percent interest loan from the State Drinking Water Revolving Fund to purchase an additional 35 acres adjacent to the wellfield. Pheasants Forever (PF) planted native grasses on both the acquired properties and Remsen's existing 40-acre wellfield that was previously in alfalfa. The prairie plants' deep roots take up more nitrogen than the more shallow-rooted crops. PF donated the seed and labor to provide excellent habitat for wildlife. Also, the city's wellfield (40 acres) had been in a crop rotation, so in the rotation it had corn, beans, alfalfa. They now have native grass in that wellfield. This change was due to information/education of the utility board.
- Remsen Fire Department and PF help with controlled burns to keep weeds in check and the local farmers' co-op is helping control Canadian thistle. The PF Chapter plans and implements maintenance for the native grass area.
- The local source water protection team has formed three subcommittees to further develop plans for the area. The plans include: outdoor classrooms, nature trails, and a long-term system for native grassland management. Another bonus of the Remsen SWP planning is that the local city burn pile was relocated outside the well field.
- Monitoring results show that Remsen has steadily reduced nitrate levels in its highest production water supply well by 40 percent since the practices were installed. This is an innovative, environmentally pleasing, and economically feasible project that has been a win-win for the community. It should be noted that the results are not immediate; nitrate levels consistently declined over a five year timeframe.



Information current as of November 2020. Please check with the Collaborative contacts (or website if available) for the most up to date information. To find other source water collaboratives across the U.S. or to add yours to the list, visit the Source Water Collaborative's [How To Collaborate Toolkit](#)