

# IOWA SOURCE WATER PROTECTION (SWP) EFFORTS

Scope: Local

Location: Iowa

## 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 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

## COLLABORATIVE FORMATION:

- » Initiated by Iowa DNR Targeted Community Water Supplies (CWS) or Non-targeted CWS Programs.
- » The Iowa SW Collaborative assists in providing resources at the local level for SWP Planning and implementation efforts for both highly susceptible and low susceptible CWS.
- » The Collaborative is specific to agriculture businesses in Iowa. This group emphasizes Source Water Protection to support Iowa's Nutrient Reduction Strategy. The agriculture sector is particularly well placed to assist in non-point source reduction across the state.

## MEMBERS:

The State Collaborative members are primarily agriculture business, which assist the DNR in outreach, information and education. These members include:

- » Iowa Soybean Association
- » Corn Growers Association
- » Agriculture Retailers
- » Farm Cooperatives
- » Conservation Agencies – local, state, and Federal
- » Certified Crop Advisors – Independent and Company

## CONTACT INFORMATION:

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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 well field.
- » Pheasants Forever (PF) planted native grasses on both the acquired properties and Remsen's existing 40-acre well field 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 well field (40 acres) had been in a crop rotation, so in the rotation it had corn, beans, alfalfa. They now have native grass in that well field. 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 the 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 but consistently declined over a five year timeframe.