

# **Iowa Source Water Protection Partners Workshop**

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Oakland, Iowa**

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# OVERVIEW

1. SWP Pilot Project(s)
2. The Value of Source Water Protection Partnerships
3. Video – Iowa Public Television

Video

SWP PILOT PROJECT FOCUS:

Develop Partnerships For An Effective SWP  
Local Planning Team

SWP PILOT PROJECT GOAL:

Implementation To Reduce Risk To  
Iowa's Source Water

# 6 of the 12 SWP Pilot Projects:

- ✓ **Remsen**
  - **Sioux Center (NPS)**
  - **Elliott (NPS)**
  - **Griswold (NPS)**
  - **Manning (NPS)**
  - **Dunlap (PS)**
- ✓ **Converted Cropland to Native Grasses**
  - **Crop Rotations**
  - **Wetland**
  - **Cover Crops**
  - **Conservation Reserve Program-Wellhead**
  - **Nutrient Management**

# Remsen's Cost:Benefit

- 2007 Estimated  
*Treatment Cost* = **2.1  
Million** with an annual  
O &M of **~\$50,000**
- **Grants/loans *received***  
**for sustainable system:**  
**~\$685,000**



# Remsen Source Water Protection Team

- Plymouth County USDA- Natural Resources Conservation Service and Farm Service Agency
- Plymouth County Pheasants Forever Chapter
- 7 Landowners/Farmers
- Plymouth County Soil & Water Conservation District
- Iowa SWP Program for Targeted Communities
- Remsen Municipal Utilities
- Sioux Rivers Resource Conservation & Development

# Conducted Ground Water Site Investigation

## IDNR staff and equipment



# *Local SWP Teams: Review Assessment Information, Discuss And Develop SWP Plan Then Identify Resources, I.E. Grants, Loans, And In-kind*



# SOURCEWATER PROTECTION WORKPLAN

## Municipal Utilities

**PWSID #** \_\_\_\_\_

**Date Initiated** \_\_\_\_\_

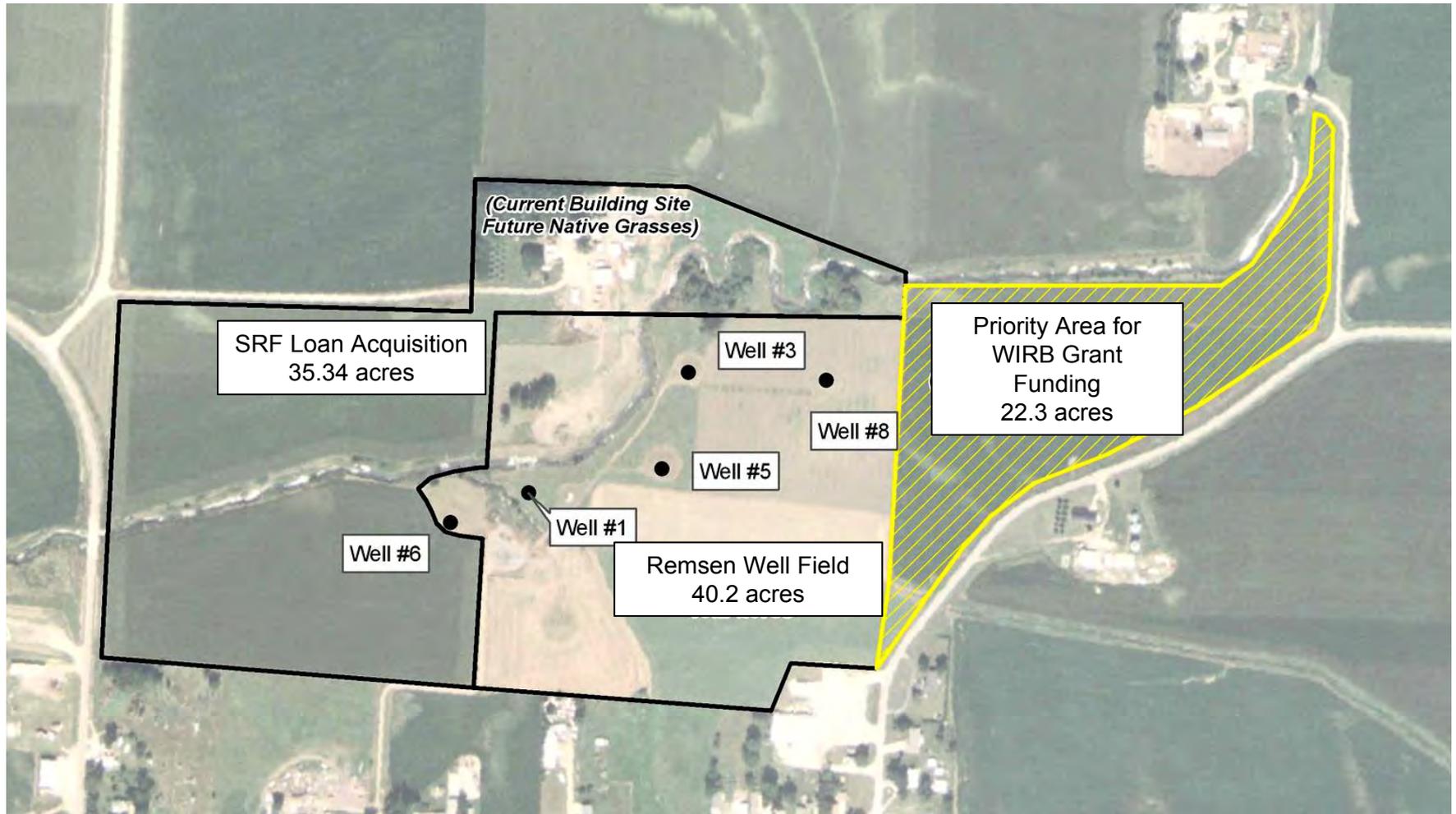
<b>Activity</b>	<b>Start Date</b>	<b>Date Complete</b>	<b>Who</b>	<b>% Done</b>	<b>Comment</b>
Organize SWP Community Planning Team & Develop Member Contact List			Steve		
Contact IDNR SWP Program Coordinator – Schedule Meetings			SWP Chair		
Update SWP GIS Map					
Conduct Landuse Assessment			NRCS/Team		
Gather Local Information,			Team		
Conduct GW Site Investigation			IDNR		



# Remsen Partnerships Provided:

- Iowa Watershed Improvement Review Board  
= \$168,000
- Iowa State Revolving Fund (0% interest)  
= \$499,000
- Plymouth County Pheasants Forever Chapter  
\$15,000 + in-kind assistance
- Iowa DNR groundwater site investigation  
= in-kind
- USDA programs and technical assistance  
= in -kind

# Team: Purchase Land Through Partnerships



# Remsen SWP Partnerships are KEY

Local Partnerships

State Partnerships

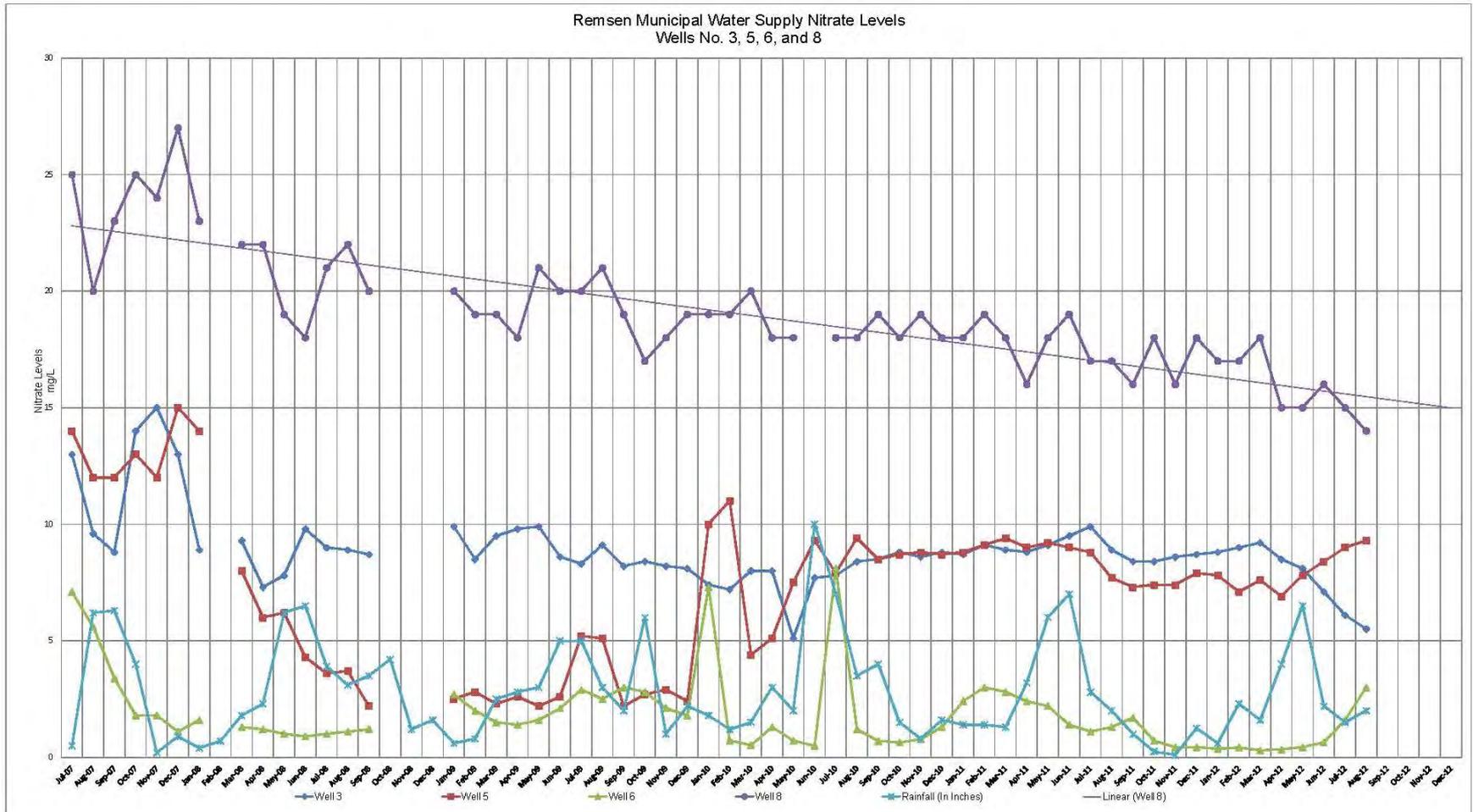
Federal Partnerships



# Third Year Of Prairie Grasses



# Remsen Pilot Project Results: Nitrogen Decreases



# Remsen – Timeline - Accomplishments

- 2007 - Identified the NPS problem
- 2008 – Local team finalized SWP plan
- 2009 - Obtain financial and in-kind resources
- 2009 – Implemented SWP Plan

## Remsen SWP Results:

***By 2013 .....***

- **Nitrate Reduction:**  
*27 mg/L down to 13 mg/L (well # 8)*
- *2 mg/L Decline in finished water overall*

# Remsen: Additional Benefits



- 2013 Governor's Water Quality Excellence Award
- 2010 AWWA National SWP Award
- Management of Priority Area
- Plan Outdoor Classroom
- Development of Walking Trail

# Sioux Center SWP Team and Partnerships

- Farmers
- USDA – NRCS
- Dordt College
- Sioux Center Utilities
- Iowa Dept. of Ag & Land Stewardship
- Leopold Center for Sustainable Agriculture
- Iowa Dept. Natural Resource (IDNR)
- Sioux County Extension



# Leopold Center Grant for SWP Research to Dordt College, Landowner, City



# Leopold Center for Sustainable Agriculture: \$90,000



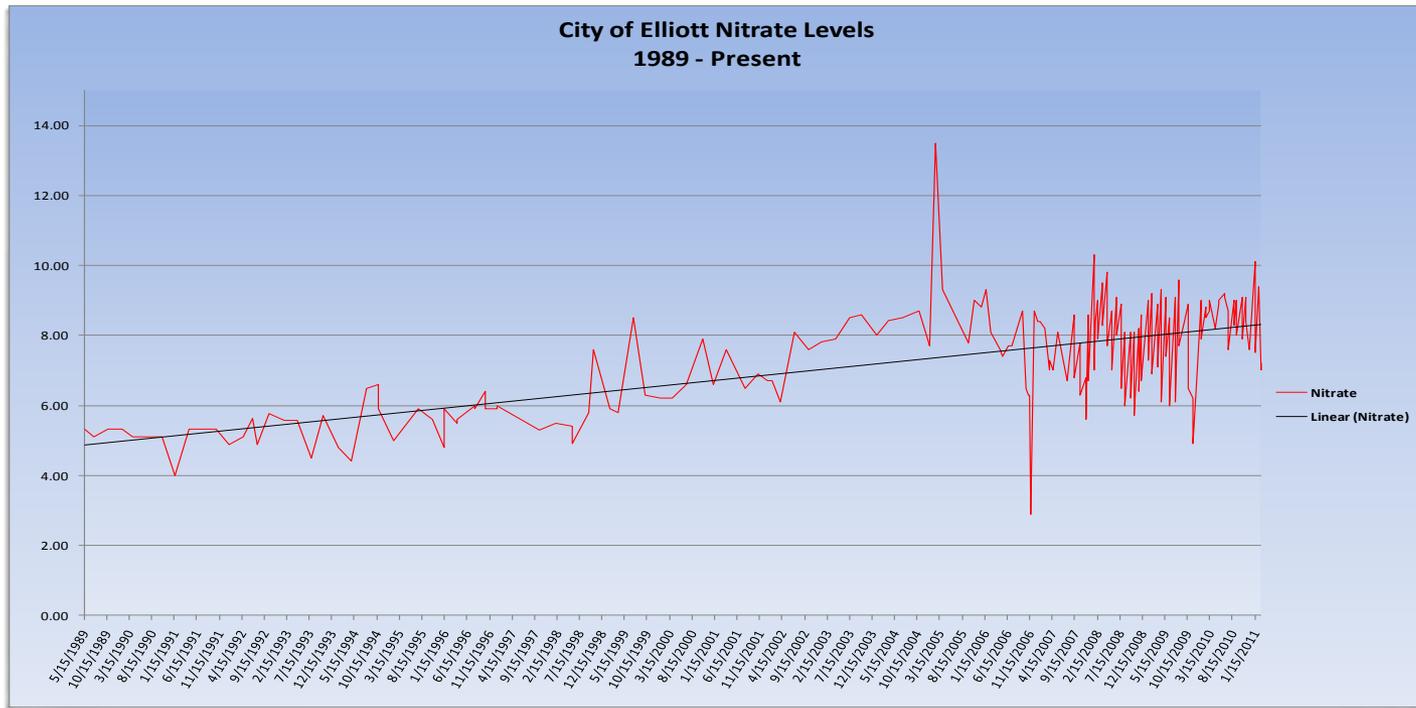
# Develop SWP Practices for Nitrogen Reduction – A 5 Year Study Conducted to Assist SWP Efforts



# Sioux Center SWP Improvements

- Changed Crop Rotation of AJS Farms to: Corn, Corn, Alfalfa, Alfalfa, Rotation and Decreased Nitrates
- Created Partnerships
- Potential WQI Demo Project Next Year

Elliott, IA Treatment Est.= **\$600,000 + est. of  
~ \$40,000 Op & Maintenance per year**

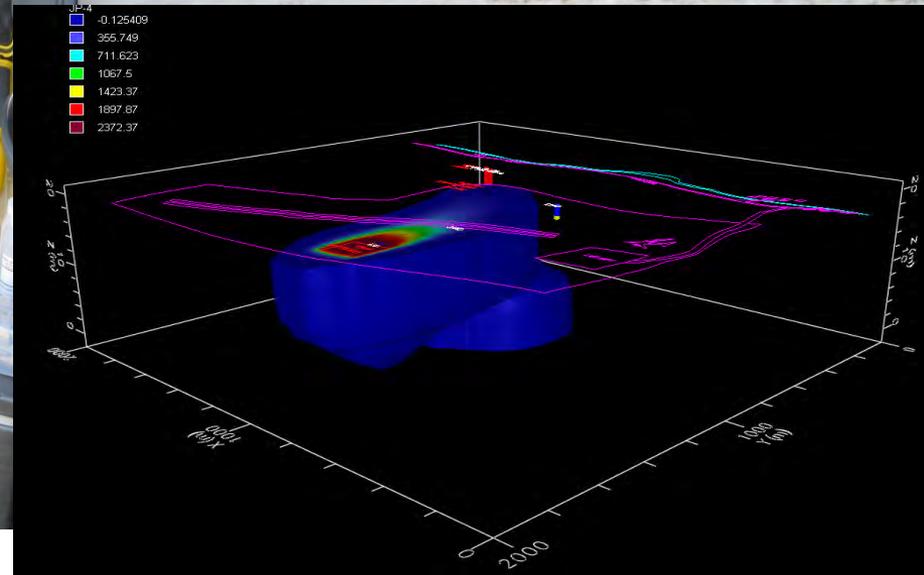


# Elliott, Iowa SWP Planning Team and Partners

1. City of Stanton – donation of bridge
2. Griswold Schools – donation of land
3. Local landowners – land sale
4. Golden Hills RCD – grant writing
5. State Revolving Fund
6. U.S. Corps of Engineers - survey
7. U.S. National Parks Service - signs
8. Montgomery County Conservation - \$
9. IDALS Division of Soil Conservation – staff assistance
10. Iowa Department of Natural Resources – SWP for Targeted CWS Program
11. Montgomery County Board of Supervisors – staff, engineering, equipment
12. U.S. Fish and Wildlife Foundation 5 Star Grant - \$
13. Watershed Improvement Review Board (WIRB) - \$
14. Montgomery and Pottawattamie Co. Pheasants Forever-seed/maintenance
15. USDA Natural Resources and Conservation Service – engineering design, c/s
16. Resource Enhancement and Protection Grant (REAP) - \$
17. Montgomery and East Pottawattamie Soil and Water Conservation Districts - \$

# Ground Water Assessment

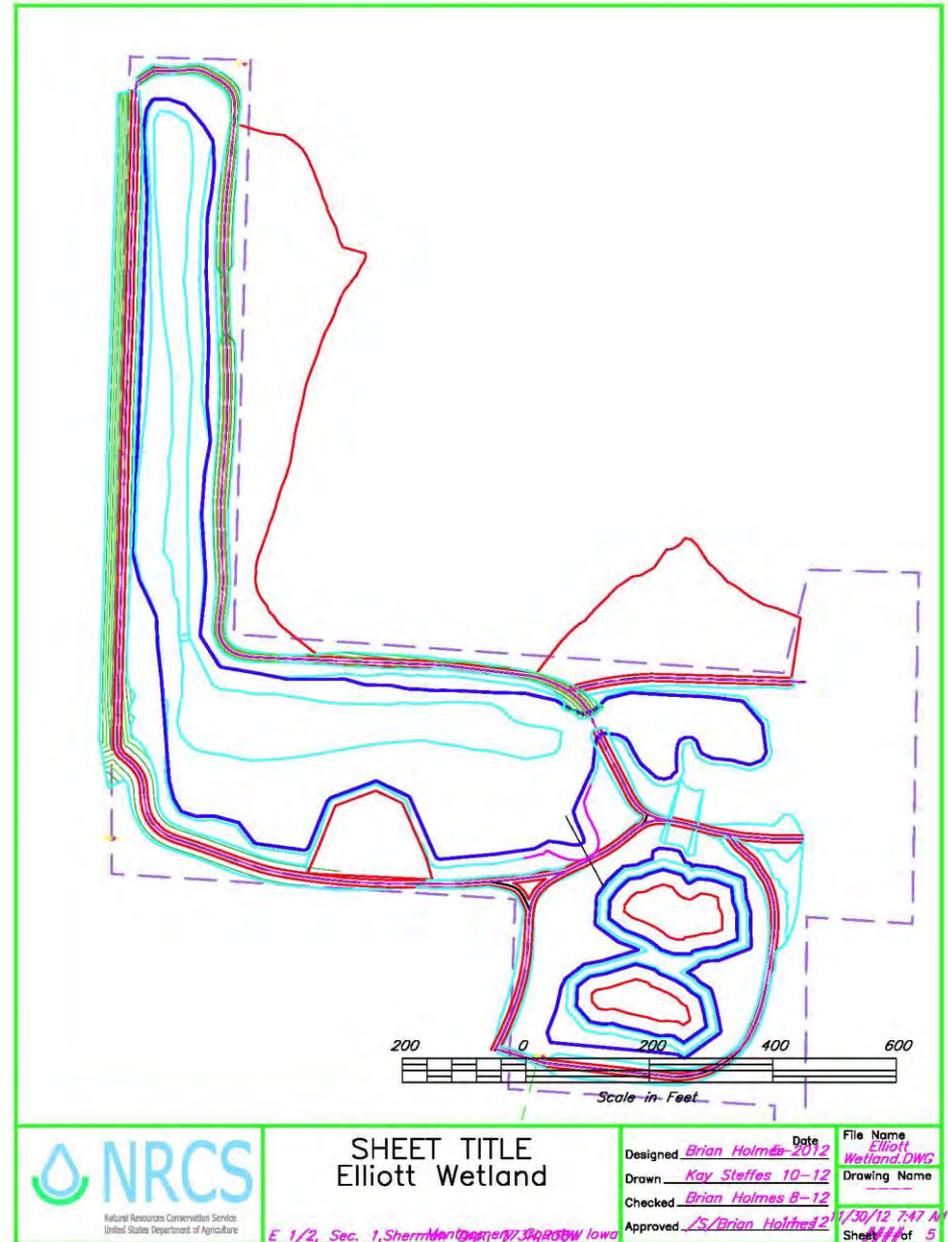
## IDNR staff and equipment



# 2013 Elliott SWP Implementation – Wetland



NRCS and IDALS developed the wetland technical plans and obtained the necessary permits and program funds for the (re)construction of the marsh.



## *Elliott SWP Grants Received:*

~ \$350,000

- 2013 Wetland Constructed
- 2014 Outdoor Classroom
- 2014 Outdoor Shelter
- 2014 ADA Accessible Trail



# Griswold Pilot Project

SWP Partners: Farmers,  
Conservation Agencies,  
City Utilities, Local  
Tiling Business Owner,  
Iowa State University  
Extension Service

- Ground Water Site Investigation
- SWP Plan Developed



# Griswold SWP Project Implementation

- Applied and Received a \$90,000 USDA-NRCS Conservation Innovation Grant (CIG) & state cost share
- Planted Cover Crops in Capture Zone
- DNR SWP program Installed Monitoring Wells



# Iowa Source Water Protection Collaborative for Generations To Come....



# Thank You!

## Contact Information

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<http://www.iowadnr.gov/Environment/WaterQuality/SourceWaterProtection/TargetedWaterSupplies.aspx>