

Redwood Soil and Water Conservation District



2011

Annual Plan of Work

INTRODUCTION

Redwood Soil and Water Conservation District's 2011 Annual Plan of Work is developed from the district's long-range plan. Redwood Soil and Water Conservation District (SWCD), through a resolution, has adopted Redwood County's Comprehensive Local Water Management Plan (CLWMP) as our Long Range Plan. Specific action items that relate to goals of the SWCD are taken from the CLWMP. There are other action items that address the goals of the SWCD but are not specifically outlined in the CLWMP.

The SWCD is the local unit of government that provides assistance to citizens who are interested in preserving, restoring and protecting soil and water resources in Redwood County.

The Mission of the Redwood SWCD is to educate and assist the citizens of Redwood County to efficiently and economically manage the soil and water resources of the county, for present and future generations.

The purpose of the plan is to guide us in effectively providing maximum conservation to all the land in the district, placing priorities on high priority areas as identified. This plan includes guidelines for employees and supervisors for the achievement of the district objectives.

Our 2011 Annual Plan of Work is developed from annual needs, and Redwood County's Comprehensive Local Water Management Plan, which the district adopted December 9, 2010, as our five year comprehensive plan. The district will implement conservation programs as necessary to achieve our goals.

PRIORITY CONCERNS
GOALS
OBJECTIVES
ACTIONS

PRIORITY CONCERNS FOR 2011:

GROUNDWATER PROTECTION THAT WILL FOCUS ON WELLHEAD PROTECTION FOR PUBLIC WATER SUPPLY.

DRAINAGE MANAGEMENT FOCUSING ON WETLAND RESTORATIONS AND FLOODWATER RETENTION OPPORTUNITIES.

SURFACE WATER QUALITY ADDRESSING IMPAIRED WATERS BY MAJOR WATERSHED FOR THESE PRIORITY POLLUTANTS: NUTRIENTS, TURBIDITY, BIOTA AND FECAL COLIFORM BACTERIA

EROSION AND SEDIMENT CONTROL FOCUSING ON RESIDUE MANAGEMENT COUNTYWIDE AND GULLY AND CONCENTRATED FLOW AREAS IN THE SOUTHWEST PORTION OF REDWOOD COUNTY.

PROVIDE FOR AN EFFICIENT DISTRICT OPERATION AND PROVIDE ASSISTANCE TO PRODUCERS.

INCREASE PUBLIC AWARENESS OF THE SOIL AND WATER CONSERVATION ACTIVITIES IN REDWOOD COUNTY.

PRIORITY CONCERN: GROUNDWATER PROTECTION THAT WILL FOCUS ON WELLHEAD PROTECTION FOR PUBLIC WATER SUPPLY.

GOAL: Work with cities and groups to ensure groundwater supply for public water suppliers are protected from contamination.

Prevent public drinking supplies from becoming polluted by working with suppliers to manage possible sources of contamination.

Protect public water supplies from possible sources of contamination due to land use activities.

OBJECTIVE: The cities of Redwood Falls and Sanborn have completed Phase I of the Wellhead Protection Plan (WHP) and will be implementing these plans. Contact remaining public water suppliers to encourage them to complete vulnerability assessments of the public water supply wells and drinking water supply management areas.

ACTION: Assist remaining public water suppliers and MDH staff in the development of Wellhead Protection Plans (WHP).

OBJECTIVE: Identify landowners who own and operate land in the delineated wellhead protection areas and encourage them to use practices that will aid in the protection of groundwater.

ACTION: Identify landowners and operators and provide them with a brochure on the importance of wise land use in these delineated areas.

ACTION: Work with landowners to enroll vulnerable land into the Conservation Reserve Program.

OBJECTIVE: Collaborate with public water suppliers in contacting individuals to make them aware of contaminants that can affect groundwater and ways to prevent groundwater pollution.

ACTION: Develop a brochure identifying potential groundwater contaminants for private well users and distribute county wide.

ACTION: As funds become available conduct an inventory of all wells within a 2 mile radius of all public water supply wells in the county.

OBJECTIVE: Educate county citizens of all ages on the importance of groundwater protection.

ACTION: Make 5 presentations utilizing the groundwater model and other educational tools to illustrate the importance of groundwater protection.

ACTION: Educate producers on the effects of tile on groundwater discharge and the importance of implementing practices to improve recharge.

PRIORITY CONCERN: DRAINAGE MANAGEMENT FOCUSING ON WETLAND RESTORATIONS AND FLOODWATER RETENTION OPPORTUNITIES.

GOAL: Provide protection to the drainage management system in place in the county.

GOAL: As part of managing the drainage system, reduce sediment and nutrients from entering surface water bodies.

OBJECTIVE: Apply watershed-based principles to properly managing drainage system and wetland restorations.

ACTION: Enroll 8 people in the Farmable Wetland Program and/or CP-23 wetland restoration practice to reduce flood potential by restoring wetlands.

ACTION: Educate producers on the importance of reducing flood potential and water velocity from drainage systems,

ACTION: Implement the State Wetland Conservation Act. Redwood SWCD has been identified as the Local Governmental Unit in charge of implementation:

ACTION: Through a cooperative agreement, provide assistance to NRCS to process 1026's wetland determinations for the food security act.

OBJECTIVE: Improve the drainage ditch system in the county through proper management and the implementation of filterstrips.

ACTION: Replace 20 open tile intakes with alternative intakes.

ACTION: Utilizing CRP and RIM Riparian Buffer Initiative to promote filterstrips until 50% of the water courses in the county have filterstrips at least 33 feet wide.

ACTION: Maintain the 72.5 acres of filterstrips enrolled through Redwood County Water Management Plan.

OBJECTIVE: Incorporate the restoration or new construction of grade stabilization structures on the landscape to reduce sediment and nutrients from entering nearby surface water bodies.

ACTION: Restore or construct at least two grade stabilization structures per year.

OBJECTIVE: Educate landowners in the county on the drainage issues.

ACTION: Through news releases and direct contact inform landowners of the importance of not farming right up to a water course and the importance of leaving a filterstrip to protect the drainage system

ACTION: Submit a newspaper article to all newspapers in the county, at least once each year to promote awareness of drainage regulations that affect citizens in the county.

OBJECTIVE: Work with one landowner to help them understand that meter drainage systems will slow the Velocity of water entering ditches and rivers.

ACTION: Install Control structure to better manage the output of drainage systems.

PRIORITY CONCERN: SURFACE WATER QUALITY ADDRESSING IMPAIRED WATERS BY MAJOR WATERSHED FOR THESE PRIORITY POLLUTANTS: NUTRIENTS, TURBIDITY, BIOTA AND FECAL COLIFORM BACTERIA

GOAL: To improve, restore and protect the surface water quality of the lakes, rivers and streams in Redwood County.

GOAL: Reduce sediment and phosphorus from entering surface water bodies.

OBJECTIVE: Promote and encourage the proper use of nutrients as applied to cropland.

ACTION: Work with five producers each year to develop nutrient management plans.

ACTION: Work with producers to encourage commercial applicators and crop consultants to implement Variable Rate Application to insure correct amount of fertilizer is applied.

ACTION: Educate the producers on the timing of application due to leaching and volatilization if applied prior to soil temperature being below 50 degrees.

OBJECTIVE: Work with landowners who utilize manure to educate them on the importance of testing and correct application.

ACTION: Work with two livestock producers who utilize manure to ensure they are testing before application and applying at recommended rates.

OBJECTIVE: Provide technical assistance to feedlot operators who have a problem based on MinnFARM pollutant loading calculations.

ACTION: Provide assistance to one feedlot operator who has a pollution problem utilizing funds through the EQIP or State Cost Share programs.

ACTION: Provide low interest loan to one producer to upgrade an animal waste facility who has less than 500 a.u.

OBJECTIVE: Target all identified Total Maximum Daily Load (TMDL) water bodies for implementation of practices to reduce pollutants.

ACTION: Provide low interest loans to 3 individuals to upgrade failing septic systems.

ACTION: Promote the installation of best management practices that will aid in the reduction of pollutant loading.

5 Grassed Waterways

10 Water and Sediment Control Basins

ACTION: Promote the installation of 1 Bio-Retentions Basin or rain garden.

OBJECTIVE: Educate county citizens on the importance of runoff control and surface water protection.

ACTION: Make presentations to two groups utilizing the Enviroscape, Mobile Environmental Education Transport (MEET) and other educational tools.

ACTION: Provide funds to sponsor presentations by the Prairie Ecology Bus Center to two schools in the county each year.

ACTION: Participate in more outreach to adults utilizing opportunities within the county such as SWROC field days, Farmfest and other such events.

OBJECTIVE: Trap and hold sediment and nutrients to prevent them from entering surface water

ACTION: Complete 1 grade stabilization structure in high priority sub-watersheds.

OBJECTIVE: To protect endangered wetlands from degradation.

ACTION: Implement the calcareous fen portion of the Conservation Partnership Grant by working with 3 individual landowners to protect 126 acres of calcareous fen

PRIORITY CONCERN: EROSION AND SEDIMENT CONTROL FOCUSING ON RESIDUE MANAGEMENT COUNTYWIDE AND GULLY AND CONCENTRATED FLOW AREAS IN THE SOUTHWEST PORTION OF REDWOOD COUNTY.

GOAL: To protect and preserve the resource value of soil on agricultural producing land in Redwood County.

OBJECTIVE: Educate and encourage land operators on the importance of installing structural conservation practices to reduce erosion and sedimentation.

ACTION:

- Distribute brochure promoting Best Management Practices (BMPs)
- Write 3 news releases promoting importance of installing BMPs
- Hold one public information gathering meeting each year

OBJECTIVE: Reduce high concentrations of sediment and nutrients from directly entering the Minnesota River through direct gullies.

ACTION: Implement the Mississippi River Basin Initiative Grant by encouraging the installation of the following:

- 2 Multi-purpose dams on gullies/ ravines that directly outlet into the river.

OBJECTIVE: Continue to promote residue management, placing emphasis on no-till and strip till practices.

ACTION:

- Work with 10 producers on 400 acres to promote tillage practice.

ACTION:

- Write news releases promoting conservation tillage practices
- Make one presentation utilizing the rainfall simulator
- Enroll five producers to improve residue levels through EQIP

OBJECTIVE: Protect and increase wildlife habitat.

ACTION: Work with five RIM contract holders to improve existing cover on 300 acres.

ACTION: Enroll 100 acres in CRP SAFE sign-up, if available.

ACTION: Establish three acres per year of tree plantings to include field windbreaks, farmstead shelterbelt, wildlife plantings and living snowfences.

OBJECTIVE: Protect and restore some of the native hardwood areas in the County.

ACTION: Implement the Conservation Partners Legacy Grant by working with one parcel to protect a mesic maple basswood forested area of the county.

PRIORITY CONCERN: PROVIDE FOR AN EFFICIENT DISTRICT OPERATION AND PROVIDE ASSISTANCE TO PRODUCERS:

ACTION:

- Regular board meeting will be held the second Thursday of each month.
- Develop Annual Plan of Work
- Approve Redwood County Water Management Plan as SWCD's Comprehensive Plan.
- Staff will include: Administrator, District Technician, who will spend 50% of their time as the Farm Bill Technician, Office Assistant, and a part-time Education/Computer Coordinator.
- Necessary training will be provided for all personnel in order to carry out the district programs.
- Review Memorandums of Understanding that we have with other agencies.
- Membership and support will continue in the Area V Association, MASWCD and NACD.
- Continue implementation of Redwood County's Comprehensive Local Water Management Plan.
- Develop Annual Budget and present to Redwood County Commissioners.
- Provide representation to various organizations such as but not limited to: RCRCRA, Coteau Des Praire RC&D, Southwest Prairie Technical Service Area, EQIP Local Work Group.
- Utilize eLINK web based reporting system to report progress.
- Utilize district web site to publish annual and other reports.
- Convene stake holders meeting and local work group for establishing priorities for EQIP and other conservation programs.
- Participate in brainstorming meetings that will establish priorities and needs in the watersheds in Redwood County
- Apply for funds through Clean Water and other sources as they become available.
- Install all cost share practices according to standards and specifications required by the program.
- State Cost practices will be spot checked by district staff in accordance with state cost share guidelines.
- Staff will meet with County FAC Committee at least twice a year to discuss issues related to the building.
- Review and comment on all DNR water permits in identifying environmental concerns.
- Monitor wells as designated by DNR.
- Maintain an efficient rain gauge monitoring network within the county.

- All programs and services of the conservation office are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status or handicap.

PRIORITY CONCERN: INCREASE PUBIC AWARENESS OF THE SOIL AND WATER CONSERVATION ACTIVITIES.

ACTION:

- Continue to update district web site (redwoodswcd.org)
- Conduct a sub-watershed inventory of minor sub-watershed 29053. Complete mailings, hold meetings and work with all individuals to resolve resource concerns in sub-shed.
- Give 5 presentations to schools, 4-H clubs, boy and girl scouts, civic groups and any other groups that request.
- Have a booth at the Redwood County Fair. In conjunction with SWCD's in Area V and VI have exhibit at Farmfest.
- Participate in multi-county pasture management workshop.
- Select Conservation Farmer and publish a news article on their accomplishments.
- Sponsor an affiliate programs as a means of educating businesses about the importance of conservation programs.
- Displays in lobby of Ag. Service Center
- Work with other Area V districts to promote environmental learning opportunities through activities such as; environmental fair and area and state Envirothon.
- Provide informational meetings, mail out letters and materials on conservation programs as they become available.
- Co-sponsor a multi-county Woman's Conservation Day

STAFFING NEEDS

Concerns	Staff Years	
	Administrative	Technical
Groundwater protection that will focus on wellhead protection for public water supply.	.2	.2
Drainage management focusing on wetland restorations and floodwater retention opportunities.	.2	.5
Surface water quality addressing impaired waters by major watershed for the priority pollutants; nutrients, turbidity, biota and fecal coliform bacteria.	.3	.6
Erosion and sediment control focusing on residue management county-wide, and gully and concentrated flow areas in the southwest portion of Redwood County.	.4	.6
Provide for an efficient district operation and provide assistance to producers.	1	
Increase Public Awareness of the Soil and Water conservation activities.	.5	.3
Total Staffing years	2.6	2.2

Total staffing years include 3 full time district employees and 1 part time district as well as one full time NRCS employee.

COST SHARE REQUIREMENTS

HIGH PRIORITY EROSION PROBLEMS

High priority erosion problems have been defined as: "High priority erosion problems" means areas where erosion from wind or water is occurring equal to, or in excess of, 2 x T tons per acre per year or is occurring on any area that exhibits active gully erosion or is identified as high priority in the comprehensive local water plan or the conservation district's comprehensive plan. Water erosion is occurring at a rate of 2T on 25,000 acres of land in the county.

Wind erosion is occurring on approximately 135,000 acres throughout the county at a rate that exceeds 2T per acres per year. However, our high priority areas where we will be concentrating our efforts are in: Paxton, Sherman, Vesta, Underwood, Delhi, Charlestown and Springdale townships.

The funds needed to install practices such as terraces, waterways, field windbreaks and diversions to control high priority wind and water problems in these areas come from State Cost Share, EQIP Cost Share program, Comprehensive Local Water Management Plan funds and Clean Water Legacy funds.

HIGH PRIORITY WATER QUALITY PROBLEMS

High priority water quality leading to sedimentation problems have been defined as:

"High priority water quality problems" means areas where sediment, nutrients, chemicals, or other pollutants discharge into Department of Natural Resources-designated protected waters, or to any high priority waters, as identified in a comprehensive local water plan or the conservation district's comprehensive plan, or discharge to sinkholes or groundwater.

The pollutant delivery rate to the water source is in amounts that will impair the quality or usefulness of the water resource.

The sedimentation in our county occurs along the Minnesota, Redwood and Cottonwood Rivers, specifically in the townships of Springdale, Lamberton, Charlestown and Johnsonville. Along these drainage ways, there is approximately 14,000 acres of land that exceeds 3 tons per acre per year.

HIGH PRIORITY WATER QUALITY PROBLEMS

High priority feedlots are defined as:

"Those feedlots where the pollution potential rating (from the ag waste model) is greater than or equal to one, and is discharging pollutants to DNR-designated protected waters or wetlands, to a sinkhole, to shallow soils overlying fractured or cavernous bedrock, or within 150 feet of a water well."

Cost share on high priority feedlots will be considered on an individual basis. We will consider establishing a new pollution abatement system or bringing an established system into compliance.

Items which may be cost shared: clean water diversions, buffer strips, holding ponds or complete systems, if necessary.

COST SHARE PROGRAM SUMMARY

Redwood Soil and Water Conservation District considers high priority projects first. The SWCD cost shares 75% of the total cost, not to exceed \$3,500, unless it is a special project where the district will waive the \$3,500, provided the landowner does not receive more than 75% of the total cost. The district estimates that it will receive \$13,000 in state cost share funds of which 20% is used for Technical and administrative functions in the district.

The cost share dollars will be encumbered for: contours, bio-retention basins, field windbreaks, grade stabilization structures, grassed waterways and water sediment control basins.

If the Clean Water Funds are received, there will be projects installed in the Redwood and Cottonwood River Watershed that will utilize these funds. Some of the projects that will be funded include; multi-purpose dams, water and sediment control basins, terraces, waterways, diversions, alternative intakes, bio-retention basins, and grid sampling and grid applying.

The funds needed to install and implement the practices include: state cost share, Federal EQIP, Ag. BMP loan program, Clean Water Funding, WHIP, Comprehensive Local Water Management and other grants that may become available.

BUDGET

Our total budget needs for staff, cost share and operation expenses are as follows:

REVENUES:	
SWCD Service Grant	36,391
State Cost Share	10,647
State Grant - (DNR Wells and Others)	16,590
NRCS Contribution	-0-
Administrative Funds from Grants	23,500
Wetland Conservation Act (WCA)	10,213
Water Plan	13,008
Water Plan Administration	6,000
Tree Sales and Planting	16,000
Interest Earnings & Principal Return	7,200
Affiliate Program	1,000
County	109,000
Miscellaneous	11,000
Local (RCRCA Reimbursement)	22,121

Total Revenues	\$282,670
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EXPENDITURES:	
District Operations	
Personnel Services	207,077
Rent	14,000
Office Maintenance	3,000
Employee Training	1,000
Vehicle Maintenance	2,000
Insurance	5,000
Education, Promotion & Advertising	1,500
Supplies	1,000
Supervisors Comp & Expenses	11,000
Professional Services Exp & Dues	8,000
Capital Outlay	-0-
Tree Program Expense	12,000
Miscellaneous	500
Total District Operations	266,077

Special Projects	
State Cost Share	10,647
Water Plan	13,008
Total Special Project Expenses	23,655

Total Expenditures	\$ 289,732
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