

WORKLOAD ANALYSIS
Albia Field Office

The Monroe County Soil Conservation District includes all of Monroe County which is located in South Central Iowa in the second tier of counties, bordered on the south by Appanoose County and on the west by Lucas County. The District encompasses 278,400 acres. The county seat is located in the town of Albia, which has a population of approximately 4,200. The total county population is approximately 9,200.

The county can be characterized as being in the midst of a population stabilization trend and an economic upturn which follows five decades of population and economic decline. These declines resulted from a combination of changing agricultural practices and economics, and the decline of a specialized economic base revolving around coal mining activities.

Agriculture is the major economic generator in the county, however some industrial firms have relocated some plants in the area, particularly in the last 15 years. The impact of Rathbun Lake on Monroe County has definitively improved its potential for economic growth, especially now that the Lake is supplying water to the rural population through the Rathbun Regional Water Association. With the advent of the rural water system the attractiveness for new business, industry and the establishment of new residences on rural acreages has significantly increased. This increase demand for these land uses could significantly affect the retention of prime ag land which presently involves approximately 48% of the total land area in Monroe County.

In order to protect prime ag land and to insure the orderly development of land use in Monroe County it was necessary for county land use regulations to be adopted in the form of a county wide zoning ordinance. The ordinance was adopted by the Monroe County Board of Supervisors on May 9, 1988 and became effective on May 10, 1988. The comprehensive Land Use Plan and Zoning ordinance was developed by the Monroe County Zoning Commission whose members include a representative from the Monroe Soil & Water Conservation District.

SOIL & WATER RESOURCE STATUS:

CROPLAND

Of the 136,015 acres of cropland 107,015 acres has an erosion rate above acceptable levels. Erosion could be reduced to acceptable levels on 14,000 acres of class 2E soils by Conservation Tillage and Contouring.

93,015 acres need more intensive treatment assuming that current farming trends continue and FSA Plans are implemented. The 93,015 acres will need Resource Management Systems that include combinations of structural and management type practices. These practices include crop rotated with meadow, terraces, contour row patterns, conservation tillage and no-till, sediment and water control basins, grassed waterways and grassed field borders. These practices have been included in resource management Systems scheduled for completion under agreed to FSA Plans.

^{The}~~Our~~ average soil loss per acre per year on cropland is nearly 15 tons. Over the last 100 years it is estimated that we have lost $\frac{1}{2}$ of our 12 inches of top soil on class 3E soils. At the 15 ton rate we are losing 1.2 inches of top soil every 12 years. We believe we cannot go beyond 20 years without significantly effecting the productive capability of the soil under current erosion rates. There are some ~~areas in the county which~~ significantly exceed the average soil loss rate. Soil losses over 100 tons/acre/year have been recorded.

If the 93,015 acres needing complete resource management system had only contouring and conservation tillage applied it would reduce the average annual soil loss to approximately 10/~~tons/acre/year~~. By applying only those measures within the next 5 years we could almost double the length of time the soil would retain its productive capability.

20,000 acres of highly erodible land are currently enrolled in the Conservation Reserve program. At least for the term of the contract (10 years) these acres will be adequately treated. Beyond the contract period these acres could revert back to cropland and would need complete resource management systems for adequate treatment.

PASTURE

Of the 80,517 acres of pasture 31,014 are not adequately treated. The 31,014 acres are characterized by the lack of an adequate fertilization program, over grazing, and the lack of good quantity and quality forage during the summer cool season grass dormancy. There is a strong need for warm season grass pastures to supplement the animals during the summer month. (July-August). Switchgrass, indiangrass and big bluestem have proven effective to fill the need. The high cost of fertilizer and fencing has weakened pasture management in the area, along with the clearing and revegetating of woodland areas too steep to properly manage with farm equipment. The District needs to promote proper management of existing pasture land and discourage the creation of new pasture at the expense of existing woodland.

WOODLAND

Of the 34,400 acres of woodland, 10,000 are not adequately treated. In the past 20 years there has been a significant reduction in woodland acres. (50%) approximately 20,000 acres have been cleared to make way for new pasture. The majority of the land cleared is on 15% and greater slopes. Difficulty in establishing and maintaining vegetation on these steep slopes has been experienced. Many critical areas within pastures have developed because of not being able to revegetate after clearing has taken place. Approximately 7,000 acres of woodland improvement is needed. The basic needs are fencing to eliminate over grazing of woodlands and thinning, harvesting, and planting for improved timber stands. The lack of an immediate economic return from the woodland has significantly affected the retention of woodland on farms in the county.

The District needs to stress proper landuse on woodland acres through conservation planning and through promotional activities stressing it's ability for marketable timber, recreation and wildlife production! 75% cost-share incentives will be offered to landowners for timber stand improvement and tree planting, through the REAP program.

RECREATION AND WILDLIFE

There are sufficient recreation areas within the county to satisfy current county needs. However the close proximity of Rathbun Lake has tremendously increased the counties potential for new recreation development. The Rathbun area draws 1 million plus in visitation annually. Surrounding counties such as Monroe have helped to alleviate some of the user pressure, but at times cannot handle the overflow. There is one water based camping area in the county. (Miami Lake). The county could make use of two more areas of similar size to alleviate some of the pressure. The District needs to work closely within the RC&D board, the County Conservation Board, and the ~~Dept. of Conservation~~ ~~Natural Resources~~ ~~Conservation~~ to encourage and assist in the development of more water based recreation areas in the county. Along with the recreation potential the county offers good wildlife populations and ranks as one of the highest counties in the state as far as diversification of game species. The main concern of the District again is to work closely with the County Zoning Commission by providing representatives to offer continued support for landuse regulations which protect existing and prime recreation and wildlife areas from degradation.

WATERSHEDS (Flood Control and Grade Stabilization)

Monroe County is divided into 15 major watershed areas. Each of these has flooding problems on major streams and gully erosion problems on side branches. Approximately 1,600 Erosion Control Structures and 1,000 Sediment Control Structures are needed to solve the gully erosion problems. Only one watershed (Soap Creek) is eligible for the PL 566 Watershed program which will control flooding on Soap Creek. The remaining watershed areas are not eligible for flood protection under current PL 566 guidelines. The ratio of bottomland acreage vs. upland acreage does not compare favorably for economic justification on the remaining 14 watershed. However, the flooding continues and is a problem not only to the farmer, but also the counties secondary road system. The District needs to assess the flooding and gully erosion problem and devise a means for solving the problem, through the RC&D program, local drainage district organizations and utilization of special projects under the REAP program.

WATER RESOURCES

Farms and rural residences have not only adequate, but quality water available to them through the Rathbun Regional Rural Water Association. Prior to Rural Water rural households depended on shallow-high nitrate concentrated wells which for the majority of households have been replaced by rural water. Well over 2,500 farm ponds dot the country side which meet the water needs for most domestic livestock, except for the feedlot or confinement operations which depend primarily on rural water.

Rathbun Lake is the potable water source for the rural water system whose 350,000 acre watershed includes parts of 6 counties including Monroe County. A 1978, 208 area wide Water Quality Management Plan suggests imminent point and non-point source water quality problems for Rathbun Lake unless they are corrected in a timely manner. although Water Quality at Rathbun Lake appears to be good; recent studies (1989) have indicated that levels of atrazine found in the Lake water could have a serious impact on the Lake's fish population. Another study indicated potential problems for pregnant females and their fetus. Monroe County has less than 2% of the Rathbun Lake Watershed.

Although there is no organized Watershed for Rathbun Lake the Monroe Soil & Water Conservation District does give priority to Landowners in the watershed when approving applications for State Cost Share assistance.

Lake Miami located 6 miles north of Albia is a 140 acre State owned Lake. Water Quality is important to the Lakes water based recreation and has steadily improved since the completion of 2 RC&D projects. The first was a Roadside Erosion Control project which eliminated tons of sediment from the Lake each year from unstable road ditches and banks on the East side of the Lake. The second project included the construction of 3 Sediment Basins located in the 3 major drainage-ways from which the Lake derives its water. Recently (March 1990) DNR has given a high priority to the Lake for 75% cost-sharing in upper reaches of the watershed for accelerated land treatment. This program will further improve the Lakes water quality, greatly impacting on the Lakes attractiveness for water based recreation.

Roadside Stabilization and Gully Control

Active gully erosion adjacent to the County's Secondary Road System has seriously impacted on road maintenance and safety. Both the County and the District are cooperating to help solve the problems. Several hundred potential on and off Road Structure sites have been identified in an inventory prepared by the District. Formal RC&D measure plans identifying the most critical sites have been agreed upon for construction by the County and the District pending available local and federal funds. Since RC&D funds are not currently available, the County is proceeding at its own pace willing to commit \$30,000 annually for these types of projects. The District has also targeted a portion of their annual cost-share funds to projects that will benefit the County road systems and the agreed to RC&D plans. These commitments need to continue along with sound resource planning to identify and capitalize on projects that benefit not only private land but public benefit such as the County's Secondary Road System.

Conservation Application Rate Analysis

Table 1 is a comparison between the rates of conservation practice application in the following 4 categories:

- Column #1. Shows the average annual application rate needed to achieve adequate land treatment within 30 years.
- Column #2. Shows the average annual application rate needed to meet the 1985 FSA planning goals established by landowners between January 1, 1990 - January 1, 1995.
- Column #3. Shows the average annual application rate for the last 3 years. (1989-1988-1987).
- Column #4 Shows the rate increase needed annually to meet the FSA and 30 year Land Treatment needs.

While reviewing this table it becomes evident that some areas of the program need to be strengthened in order to keep pace with current projected needs. Soil Conservation can be accomplished using many different combinations of practices. As an example an area now planned for terraces, can just as effectively be handled by switching to a contour, no-till system; or an area showing a need for contour strips and minimum tillage could be handled by a complete landuse conversion to pasture.

As implementation methods change, so will the needs shown in this table. Practice changes and needs will occur annually based largely upon, fluctuating farm commodity prices, changes in farm programs, FSA plan revisions and technological improvements. Therefore the figures in this analysis is a base from which to work, recognizing significant change can and will occur.

TABLE I

ITEM CODE	UNIT	Total Needs Divided by 30 Year Install- ation period. Average Annual Rate	Total Needs as Planned in FSA Plans. Divided by 4 Year install- ation period. Average Annual Rate	Average Annual Application Rate (Past 3 years) 87-88-89	Rate in- crease to meet Total (30 years) & FSA Needs
328	Acres	3833	-	5732	-
329	Acres	4166	1518	7941	-
330	Acres	2100	1594	4600	
342	Acres	200	-	50	+ 150
362	Feet	42333	-	1819	+ 40514
386	Feet	166666	796412	38398	+ 758014
378	No.	66	-	20	+ 46
& 410					
412	Acres	333	4047	36	+ 4011
510	Acres	2683	-	2350	+ 333
512	Acres	1033	-	3676	-
585	Acres	50	282	5	+ 277
600	Feet	600000	43769	43146	+ 556231
638	No.	266	-	25	+ 241

Current Operations Limitations

Field Office accomplishments are directly related to factors which limit success and the degree to which these limiting factors are overcome. The following factors can limit the rate of accomplishment.

Staffing

Currently the Albia Field Office Staff includes a District Conservationist, Soil Conservation Technician, Soil Conservation Technician II, State Clerk and 3 intermittent employees, (WAE). Two additional full-time

employees could be justified to meet the needs of FSA by 1995 plus current levels of WAE time allocation. To have a fully trained staff at any one given time is not probable but desired. Therefore an intensive training program for employees is essential during the 5 year FSA process to insure as much staff productivity as possible.

FSA Revision Policy

Current policy interpretation for FSA Plan revision allows USDA program participants the flexibility of delaying practice implementation until 1994 through plan revisions, and still be considered to be actively applying their FSA Plan between 1990-1995. The potential for landowners to revise plans and ~~delay all~~ practice implementation until 1994, exists. To stay on target with original practice schedules which are currently and realistically spaced between 1990 and 1994, a minimum of revisions must be realized. A strong follow-up program is essential to provide prudent planning expertise during this critical implementation period.

State and Federal Cost/Share

Currently both cost/share programs would need a 200% plus increase in funds to keep pace with the applications received annually. If additional funding was obtained more staff and contractors would be needed to service the additional cost/share applicants.

FSA and USDA Program Computability

FSA and Annual USDA program participation are full of red-tape and confusion. FSA plan implementation depends primarily on program participation. If program participants become discouraged and consider the hassle of sign-up not worth the program benefit offered they will likewise not implement their FSA plan. If future USDA program benefits are reduced a significant drop in participation can also be expected. Improving the system to make it less confusing and time consuming would lessen the dropouts if program benefits are reduced.

Conservation Practice Understanding and Acceptance

A large percentage of FSA plans show agreement to apply contour lines, grassed waterways and grassed field borders. Most landowners have some understanding or concept of these practices, but most would lack a working knowledge to apply them adequately to meet technical standards. This knowledge or correct understanding of the practice will come only after it has been physically staked in the field according to technical standards.

Acceptance of the practices may dwindle after compliance requirements are realized by the landowner. A follow-up program that sells conservation is essential to the implementation of resource management system planned during the Five Year period.

Operational Changes

The implementation of FSA plans between 1990 and 1995 will be the main focus of the Field Office activities. Significant changes relating to quantity and quality of follow-up work will need to take place. A concerted effort on the part of the staff and District will be needed to coordinate follow up activities. Follow-up will consist mainly of plan interpretation, revision and practice layout services to landowners. A follow up goal of 100% of the landowners involved in FSA is desired. The amount of time and services provided to each will depend largely upon time and personnel available to complete the task.

High Priority Activities

The next 5 years (1990-1995) will be critical to the Soil Conservation movement in Monroe County. No other time in the History of Soil Conservation has there been such a guarantee for land treatment. The mechanism for implementing Soil Conservation (The 1985 FSA) is at hand and will need to be pursued actively, but wisely to reap it's benefits. The following 9 activities will be high priority during this 5 year period.

1. The 1985 Food Security Act follow-up and services program.
2. State & Federal cost/share programs.
3. The Soap Creek PL566 Watershed Program.
4. The Chariton Valley RC&D program.
5. The Resources Enhancement and Protection Program. (REAP)
6. Landuse and Zoning Commission program.
7. Lake Miami Watershed Land Treatment Program. (75% cost/share special State Funds)
8. ASCS ACP special projects program.
9. Information-Education program.

ALBIA FIELD OFFICE

FIVE YEAR PLAN

1990 - 1995

MARCH 1990

The Five Year Plan objectives are based on the 9 High Priority items listed in the Workload Analysis Narrative. Please refer to column #1 & 4 of Table I to arrive at the desired rate of annual application needed for Resource Base Protection.

OBJECTIVE I: Attain fully implemented 1985 FSA Plans by January 1, 1995.

GOAL 1: Provide annual service to USDA program participants.

ACTION:

1. Schedule a minimum follow up service on 30% of all landowners and operators with FSA plans each Fiscal Year. Follow up activities will include plan interpretation practice layout and plan revisions.
2. Provide Soil Conservation practice layout training to recipients of the 30% follow up service.
3. Provide engineering equipment to landowners for layout purposes. (Handlevels, camlines, survey rods, residue measures etc. on loan basis).
4. Annually advertise and solicit participation for 2 producer Field Training Days. (March-April, October-November)

OBJECTIVE II Utilize State and Federal cost/share programs to assist with FSA Plan implementation.

GOAL 1: Target State cost/share funds to high priority FSA planned areas.

ACTION:

1. Assist Soil & Water Conservation District with the development and utilization of a Priority Rating System for administration of State cost/share funds.
2. Place special emphasis on cost/share for grassed waterways and field borders (critical area seeding) to provide added incentive for completion of FSA planned practices. (Terraces and Structures will continue to be high priority items).

GOAL 2: Insure District eligibility for supplemental cost/share funds.

ACTION:

OBJECTIVE II - continued

ACTION:

1. Schedule to insure timely servicing of applications.
2. Utilize contractor check out whenever possible, leaving more time for practice survey and layout.
3. Soil & Water Conservation District set deadlines of 1 month for start and completion of cost/shared practices adjusting only under extenuating circumstances.)

GOAL 3: ASCS County Committee utilize priority rating system for ACP approvals like or similar to the District's.

ACTION:

1. SCS and SWCD meet with ASCS CED and County Committee to share District priority rating system and encourage its adoption.
2. Utilize contractor check out whenever possible leaving more time for practice survey and layout.
3. Schedule to insure timely servicing of applications.

OBJECTIVE III Provide assistance to the Soap Creek Watershed Board, Monroe County Board of Supervisors and Monroe County Soil & Water Conservation District to fullfill obligations set forth in the Watershed Plan.

GOAL 1: Assist with landrights aquisation.

ACTION:

1. Provide asssttance as requested by Engineers and Landrights person Archie Rupe for activities relating structural survey and obtaining easements.
2. Generate information education activities to promote Soap Creek Watershed during the construction phase.
3. Annually produce a list of landrights needed for planned construction.

GOAL 2: Provide asssttance during operation and maintenance stage of Soap Creek Watershed.

ACTION:

1. Help sponsors organize and conduct O & M inspections.
2. Assist sponsors with public information relating to O & M inspections.
3. Review annually in January O & M funding obligations with the County Board of Supervisors.

OBJECTIVE IV

Assist Monroe SWCD with Chariton Valley RC&D Activities.

GOAL 1:

Complete 2 on or off Road Structures annually.

ACTION:

1. Annually in January review RC&D Measure Plan 142 funding obligations with SWCD & County Board of Supervisors.
2. Coordinate site locations with County Engineer.
3. Provide survey design and layout for selected sites.
4. Coordinate activities between sponsors and landowners concerning landrights and contracting.

OBJECTIVE V

Assist the SWCD with the utilization of the Resources enhancement and Protection program.

GOAL 1

Provide assistance for the development of the SWCD's Five Year Plan (REAP).

ACTION:

1. Identify potential projects for inclusion into the Five Year Plan and submit plan.
2. Submit applications for projects identified in 5 year plan.
3. Review 5 year plan annually and update as necessary.
4. Update the public through the local news media concerning the REAP program.

OBJECTIVE VI

Develop and support wise landuse in Monroe County.

GOAL 1

Assist SWCD with providing sound landuse information to the Monroe County Landuse and Zoning Commission.

ACTION:

1. Attend Landuse and Zoning Commission meetings as Districts representative.
2. Provide technical and resource information as requested.

OBJECTIVE VII

Improve Watershed Land Treatment and water quality of Lake Miami.

GOAL 1

Utilize special State owned Lakes 75% cost/share funds provided to the Lake Miami Watershed.

ACTION:

1. Inventory and identify Land Treatment needs in the Watershed

OBJECTIVE VII- continued

ACTION:

2. Identify landowners and notify by letter and personal contact about the availability of 75% cost/share funds.
3. Provide survey design and layout assistance in a timely manner to utilize funds received.
4. Coordinate Water Quality monitoring program of the Lake to assess the benefits of the on going Land Treatment program.
5. Provide timely public information to the local news media concerning Land Treatment and Water Quality progress.

OBJECTIVE VIII Utilize ACP Special Project Funds for Land Treatment needs in small sub watershed area of Soap Creek Watershed.

GOAL 1

Submit 1 special ACP project annually for a sub Soap Creek Watershed area.

ACTION:

1. Inventory and identify potential projects within Soap Creek Watershed.
2. Provide survey design and layout assistance for successfully funded projects.

OBJECTIVE IX

Create an awareness in need for the general public of the conservation of Soil, Water and related Resources.

GOAL:

Inform and Educate all organized groups of the Community.

ACTION:

1. Provide timely news and information to the local news media including the Albia Newspapers and KLBA Radio Station.
2. Solicit minority participation on District Board and committees of the District. (Solicit by letter and personal contact annually).
3. Identify volunteers to assist with District information Education program.
4. Annually by letter invite all service organizations of the county to attend SWCD meetings and functions.
5. Assist Commissioners and volunteer with organization and coordination of an information-education committee.