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Linking Farm Policy and Conservation Policy in Michigan

Michigan State University

Cooperative Extension Service

Jessica T. Kovan, Amy K. Purvis, Vernon L. Sorenson, Lawrence W. Libby Agricultural Economics

August 1987

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Linking Farm Policy & Conservation Policy

*A Guide to the Conservation Provisions of the 1985
Food Security Act.*

Extension Bulletin E-2077 (New) August 1987

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"We did not
inherit this land
from our
ancestors. We
are borrowing it
from our
children"

Old American Indian saying



PREFACE

This publication was developed for the Cooperative Extension Service and the Department of Agricultural Economics at Michigan State University. The report has benefitted from the comments and help of James Crum, William Hartman, Robert Payne, and Gerald Schwab. Special thanks to Francis Pierce and James Reisen for assistance with analysis of the 1982 National Resource Inventory data. The authors, however, are solely responsible for the contents of the report.

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Section I:

Introduction



The conservation provisions of the 1985 Food Security Act create new opportunities and obligations for Michigan farmers. These provisions, known as the Conservation Reserve, conservation compliance, sodbuster, and swampbuster, have many implications for soil and wetland conservation and commodity supply control. All farmers need to be aware of these provisions and their implications. Some farmers may already be out of compliance and will need to take steps to establish and maintain eligibility for commodity loans and other USDA farm programs.

This document discusses the issues and economic implications of the conservation provisions. Its purpose is to help farmers understand how these provisions will affect and influence their short-term and long-term economic choices.

According to the Soil Conservation Service, approximately 1 of every 4 acres of nonfederally owned agriculture and forest land in the United States is highly erosive. Without adequate protection, these lands will have high rates of erosion. Concurrently, more than one-half of the wetlands in the United States have been transformed from their natural state. The conservation provisions of the 1985 Food Security Act aim to protect United States land resources by linking farm policy and soil conservation policy.

Soil conservation programs originated during the Dust Bowl years of the 1930s. At that time, soil erosion was declared a national menace by Congress and payments were provided for reducing tilled acreage. Initially, these programs emphasized educating farmers to meet short-run agricultural goals while ignoring long-run conservation objectives. Increasingly, policy makers have recognized the need for integration between short-run

**THE CONSERVATION
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AND FOREST LAND IS
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ERODIBLE.**

agricultural programs and long-term environmental goals. As long as farmers are allowed to include crops produced on highly erodible land and converted wetlands as part of their base acreage for various farm supports, soil erosion and the loss of wetlands will continue. By combining farm and soil conservation policy, soil erosion and the loss of wetlands are discouraged. This linkage can also help to stabilize farm income by reducing the supply of agricultural commodities. Thus, through the 1985 conservation provisions, erosion control and improvement in the farm economy are both emphasized as societal goals.

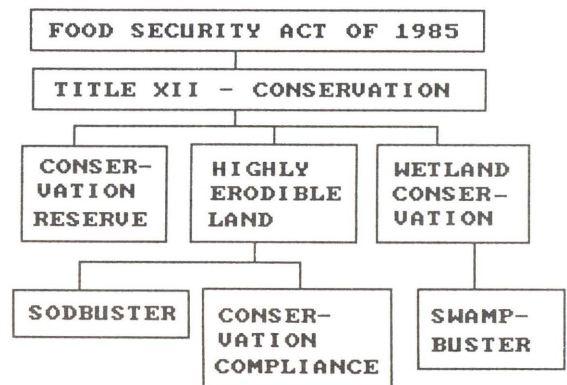
COMBINING FARM AND
SOIL CONSERVATION
POLICY DISCOURAGES
SOIL EROSION AND THE
LOSS OF WETLANDS.

THE FOOD SECURITY ACT OF 1985

The 1985 Food Security Act includes four major conservation provisions: (1) The Conservation Reserve; (2) Sodbuster; (3) Swampbuster; and (4) Conservation Compliance; as well as a fifth rarely discussed provision, Conservation Easements. These provisions should reduce soil erosion and improve environmental quality; their overall goal is to protect the nation's natural resource base. Every county with highly erodible lands or wetlands will be affected. Each provision has specific purposes, as briefly described below:

Conservation Reserve: provides a financial incentive for farmers to take highly erodible land out of production and put it into permanent vegetative cover for ten years.

Sodbuster: seeks to prevent the conversion of highly erodible lands into agricultural production without development and application an approved conservation plan.



Swampbuster: seeks to prevent further conversion of wetlands to crop production.

Conservation Compliance: encourages farmers to develop and begin implementation of a conservation plan on all highly erodible land being used for crop production.

Conservation Easements: authorizes the United States Department of Agriculture to purchase and retain the right to uplands, wetlands, or highly erodible lands for conservation, recreation or wildlife uses.

USDA FARM PROGRAMS IN THE PAST HAVE INADVERTENTLY PROMOTED CULTIVATING LANDS THAT HAVE HIGH EROSION RATES, BY ENCOURAGING MAXIMUM PRODUCTION THROUGH FARM SUBSIDIES.

 LINKING FARM AND CONSERVATION POLICY

Including conservation provisions in the 1985 Food Security Act makes the goals of the U.S. Department of Agriculture's farm and conservation programs more consistent. USDA farm programs in the past have inadvertently promoted cultivating lands that have high erosion rates, by encouraging maximum production through farm subsidies and the maintenance of base acreages. These same programs have also led to overproduction and accumulation of commodity surpluses.

Commodity price support programs have been implemented to raise and stabilize farm income. Yet, high and stable prices encourage the development of marginal cropland. If, as often holds true, these marginal lands are highly erosive, the programs also encourage erosion.

The provisions of the 1985 Food Security Act remove the incentives that inadvertently promote soil erosion and the cultivation of wetlands. The conservation compliance, swampbuster, and sodbuster provisions disqualify farmers from

THE PROVISIONS OF THE 1985 FOOD SECURITY ACT REMOVE THE INCENTIVES THAT PROMOTE SOIL EROSION AND THE CULTIVATION OF WETLANDS.

participating in most USDA farm programs if they cultivate highly erodible cropland without approved conservation systems or if they convert wetlands in order to plant crops.

The Conservation Reserve Program has also been introduced to pull farm policy and conservation policy closer together. The Reserve provides a means to achieve erosion control on cropland over the long term while helping to stabilize farm income and the farm economy in the present.

THE CONCERN FOR ERODING SOILS

Many soils are not appropriate for growing crops. The land may have too much slope, be too wet or too dry, and/or be prone to flooding (Table 1.1). If there is too much slope, when the land is cultivated for row crops with conventional tillage methods, the topsoil will wash away at very high rates. Land may be too wet due to a high water table or occasional flooding. When soils are too shallow or too dry, proper root development may not occur. Many cropland acres in the United States have one or more of these characteristics. Some soil erosion is inevitable when this land is cultivated.

Soil erosion becomes an agricultural and environmental threat when the annual rate of erosion exceeds the rate at which new soil is formed. A tolerable erosion rate is generally accepted to be a loss of 1 to 5 tons of soil per acre per year. At these amounts the top soil is replaced through natural processes. At greater amounts, the top soil is depleted.

There are, fortunately, many available conservation practices which can control soil erosion.

THE CRP ESTABLISHES A WAY TO ACHIEVE EROSION CONTROL ON CROPLAND OVER THE LONG TERM WHILE HELPING TO STABILIZE FARM INCOME AND THE FARM ECONOMY IN THE PRESENT.

LAND:	Million acres	%
Level	420	29%
Sloping	1,010	71%
Wet	265	19%
Drought	362	25%
Flood prone	175	12%

Table 1.1. Condition of U.S. Rural Soils.

Source: USDA,
Dec. 1980.

Nationwide, over two million land users now apply conservation systems on their farms to combat the erosion problem. This is only a beginning. In 1986 the Soil Conservation Service estimated that additional conservation treatment is needed on more than 50 percent of all cropland, two-thirds of forest land, and 75 percent of pasture and rangeland (Table 1.2).

WHAT CONSERVATION PLANNING MEANS

Approximately two-thirds of the land in the United States is privately owned. The responsibility for protecting and preserving this resource rests with the individual. Yet the make-up of the land varies widely. Most farmers find several soil types with different physical properties on their own land. These characteristics will influence the risk of soil erosion, especially combined with other natural elements such as wind and water. Therefore, farmers need to develop ways to cultivate without excessive erosion.

The Soil Conservation Service estimates that 344 million acres of nonfederal land are highly erodible. Croplands cover 118 million acres of these lands with the largest percentage found in the Midwest region of the United States (Fig. 1.1). It is very important to plan how these highly erodible lands will be used, so that present U.S. production does not endanger future soil productivity.

TWO-THIRDS OF THE SOIL EROSION IN THE UNITED STATES OCCURS ON CROPLAND

Land Use	Billion tons	Tons per Acre
Cropland	3.1	7.4
Rangeland	1.2	2.9
Forestland	.4	.9
Pastureland	.2	1.4
Total	4.8	5.7

Table 1.2. Annual soil loss in the U.S.

Source: Crosson, 1986.

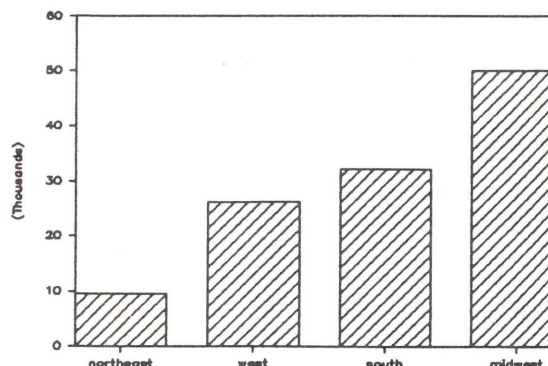


Fig.1.1. Highly erodible cropland in the U.S.

Source: USDA, 1986.

----- ESTIMATING EROSION POTENTIAL -----

Soil scientists have developed several methods to estimate the severity of erosion. These estimations include land capability classes, soil loss tolerance estimations, and an erodibility index.

Land Capability Classes.

Land capability classes (LCC) are used as a simple index to define the land's suitability to grow crops. The rural landscape is divided into eight classes with Class I having the greatest potential for growing crops and Class VIII being unsuitable for producing any crops. In the United States, almost all of the Class I soils are being used for cropland. These are, in general: level, deep, well drained and easily tilled. However, the majority of the nation's agricultural land is in LCC II and III. These classes often require the implementation of conservation measures. The land capability categories are widely used in describing land characteristics and deciding upon land management practices (Fig. 1.2).

Soil Loss Tolerance and the Erodi- bility Index.

In defining erodible lands, both soil loss tolerance (T) and the erodibility index (EI) are used to differentiate highly erodible lands. Soil loss tolerance approximates the rate at which natural processes can replace soil. It is defined as the maximum average annual soil loss that will economically and technically permit a high level of production on a specific soil. Critically eroding soils are, on the average, those eroding in excess of 2T.

The erodibility index is a numerical expression indicating

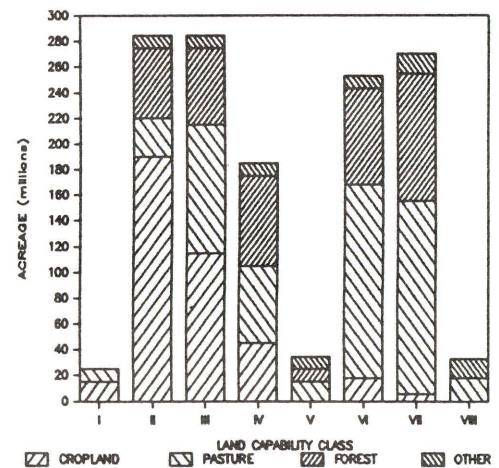


Fig. 1.2. Land Use by Capability Class in the U.S.

Source: USDA,
Dec. 1980.

THE "TOLERABLE" RATE
OF EROSION IS
EXPRESSED AS THE "T"
RATE.

potential erosion and, hence, the extent to which conservation practices will be needed to adequately reduce erosion. It is based on the soil's physical and chemical properties, the slope of the land, and the climate where the soil is located. The higher the index, the greater the potential for erosion and the more difficult it will be to control erosion.

In establishing highly erodible criteria, inherent erosion potential and actual erosion are differentiated. Actual erosion measurements use the universal soil loss equation (USLE) which takes into consideration conservation practices, whereas potential erosion considers only the physical attributes of the land. Potentially erodible land is that land with an erodibility index greater than or equal to eight ($EI \geq 8$), while actual erosion is defined as eroding at a level greater than two times the soil loss tolerance ($2T$).

----- WHY SHOULD WETLANDS BE CONSERVED? -----

Wetland areas continue to vanish. In the United States, approximately 300,000 wetland acres are lost per year; two-thirds of these are being converted to agriculture. The southern region of the U.S. contains the largest percentage of wetland acres. (Fig. 1.3)

Wetlands serve many significant ecological functions. The preservation of wetlands is important. Birds, especially waterfowl, animals, aquatic life, and plant life all depend upon wetlands for survival. A number of rare and endangered species are found only in wetland habitat.

Wetlands also decrease the likelihood of floods, reduce stream flow in the spring, increase base

THE ERODIBILITY INDEX NUMBER INDICATES THE EXTENT TO WHICH CONSERVATION PRACTICES WILL BE NEEDED IN ORDER TO ADEQUATELY REDUCE EROSION.

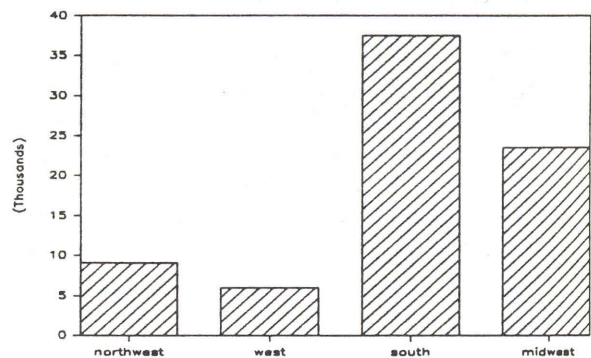


Fig. 1.3. Wetland acres in the U.S. (in millions).

Source: USDA, Sept. 1986.

flow rate in the fall, and often contain recharge areas for groundwater. Environmental quality is enhanced by wetlands, where water quality is improved by reducing sediment yields and removing phosphorus from water. Consequently, it is important for man, animals, and plant life, that wetlands be conserved and protected.

BIRDS, ANIMALS,
AQUATIC LIFE, AND
PLANT LIFE ALL DEPEND
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THE UNITED STATES
APPROXIMATELY 300,000
WETLAND ACRES ARE
LOST EACH YEAR.



Section II:

How the Program Works



----- THE CONSERVATION RESERVE -----

The Conservation Reserve Program (CRP) provides a financial incentive for farmers to take highly erodible land out of production for conservation purposes. The program has a goal to remove 40-45 million acres of land from cultivation. Implementation of the program began in 1986 under the direction of the U.S. Department of Agriculture.

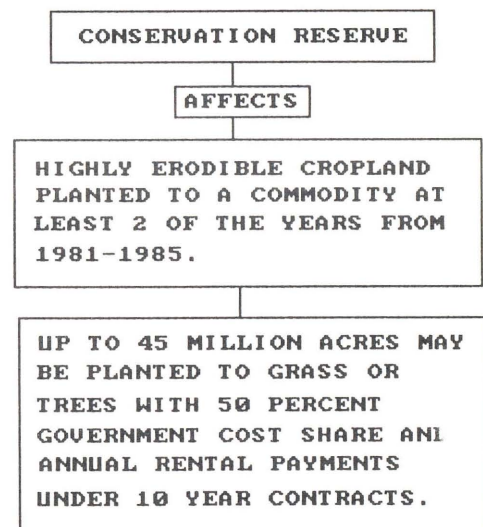
Purpose.

The CRP is a voluntary program enabling farmers to prevent or control the soil erosion occurring on their land. The erosion of the nation's soils can in the long run decrease the land's capability to produce food and fiber. In addition, erosion produces adverse environmental consequences for air and water quality.

The reserve is also expected to help reduce the supply of some agricultural commodities currently in surplus: cotton, wheat, corn, soybeans, and small grains. Even though lands eligible for the reserve are often marginally productive, retiring these acres should help to adjust production levels and reduce some surpluses. Consequently, the goals of the Conservation Reserve Program include improving water quality, enhancing fish and wildlife habitat, and providing income support for farmers.

How the program works.

Landowners submit to USDA a sealed bid that represents an annual rental figure per acre. If the bid is accepted, a ten year contract is signed by a farmer and USDA, reaching an agreement to take eligible land out of production and put it into perennial grasslands, wildlife plantings, or trees.



Payment is received partially in cash and partially in commodity certificates. An additional benefit is that USDA will cost-share up to half of the expense of establishing permanent cover on the land and will provide technical help to develop a conservation plan.

Eligible land.

To be accepted into the Conservation Reserve Program in 1987, cropland must meet the specific eligibility requirements listed below:

*Cropland in Capability Classes VI, VII, or VIII. These lands are considered too steep or shallow to farm.

*Cropland in Capability Classes II-V that has an average annual erosion rate of more than three times the tolerable rate (3T); or if serious gully erosion problems exist, the erosion rate can be two times the tolerable rate (2T).

*Cropland consisting of soils which have an erodibility index of 8 or greater and is eroding at a rate higher than that recommended in the Field Office Staff technical guide.

Eligible land must have been in production of an annual crop any two years from 1981 through 1985. The land also must have been owned by the farmer a minimum of 3 years before signing the Conservation Reserve Program contract.

New eligibility criteria have been established for 1988. The criteria includes cropland having an erodibility index greater than or equal to 8 or as recommended in the Field Office Staff technical guide.

Sign-up specifics.

To bid for the Conservation Reserve Program, landowners must designate and estimate the acreage of those fields to be included.

CONSERVATION RESERVE PROGRAM:

ELIGIBLE LAND:

*CROPLAND IN
CAPABILITY CLASSES
VI, VII, OR VIII.

*CROPLAND IN
CAPABILITY CLASSES
II-V THAT HAS AN
AVERAGE ANNUAL
EROSION RATE OF
MORE THAN 3T.

*CROPLAND WITH
SERIOUS GULLY
EROSION AND AN
EROSION RATE OF 2T.

*CROPLAND WITH SOILS
HAVING AN
ERODIBILITY INDEX
OF 8 OR GREATER.

Information must be provided about crops grown and conservation practices applied during the 1981-1985 period. A bid is then submitted for the annual rental payments for the designated acres.

The smallest eligible acreage allowed for sign-up is 10 acres, unless a higher minimum has been established by the state. However, if an entire field smaller than 10 acres is classified as highly erodible, it will be accepted regardless of size. ASCS (Agricultural Stabilization and Conservation Service), SCS (Soil Conservation Service), and CES (Cooperative Extension Service) representatives are available to help farmers with this paperwork. Sign-ups may occur each year from 1986-1990.

Bidding "pools" have been established in each state. As landowners submit bids to county ASCS offices, these bids apply to the pools in which they are located. Bids are accepted on a competitive basis. They are compared with the other rental rates per acre offered in that pool.

Payment Limits.

CRP payments to the landowner may not exceed \$50,000 per year. This is exclusive of other USDA payments. Not more than 25 percent of the cropland in any county can be accepted into the program, except in cases where it is determined that the economic impact upon the county would be minimal. Commercial benefits from land held in the reserve are prohibited during the contract period; such as haying, grazing, or seed or tree harvest.

Returning land to production.

A farmer may return the reserve land to production by repaying the government, with interest, all of the costs for annual rental and cost-sharing payments. Also, in

AT THE SIGN-UP, A FARMER MUST:

- *DESIGNATE WHICH LAND IS PROPOSED FOR THE PROGRAM
 - *ESTIMATE ACREAGE TO BE SUBMITTED
 - *PROVIDE FIELD CROPPING HISTORY FOR 1981-1985
 - *DESIGNATE CONSERVATION PRACTICES TO BE USED
 - *SELECT LAND COVER TYPES
 - *SUBMIT BID FOR ANNUAL RENTAL PAYMENT ON DESIGNATED LAND
-

the event of increased agricultural need, the government may declare that any farmer may return the land to production without penalty.

Environmental benefits.

The expected environmental benefits of the reserve include:

- *decreasing soil erosion by 750 million tons per year nationwide;
- *improving water quality by decreasing the amount of displaced soil entering surface waters;
- *decreasing the amount of pesticides applied to cropland by 60 million tons;
- *improving fish and wildlife habitat;
- *increasing tree plantings to provide natural resources, as well as future income for land-owners and economic value to communities.

Costs of the program.

The expected government cost of the program over the first five years is approximately \$5 billion, which is mostly for rental payments. As the land is removed from commodity programs, these costs may be partially offset by reduced Commodity Credit Corporation payments.

The Conservation Reserve Program versus previous reserves.

The Conservation Reserve Program is different from the Soil Bank of the 1950s, as it concentrates on removing the most highly erodible lands from cultivation. Earlier programs were intended primarily to adjust supply to demand by allowing farmers to take any type of land out of production. Today's Conservation Reserve Program promotes the protection of natural resources more stringently than did the Soil Bank.

ENVIRONMENTAL BENEFITS:

- *DECREASE SOIL EROSION
 - *IMPROVE WATER QUALITY
 - *DECREASE PESTICIDES APPLIED
 - *IMPROVE FISH AND WILDLIFE HABITAT
 - *PROVIDE NATURAL RESOURCES
-

THE CONSERVATION RESERVE PROGRAM CONCENTRATES ON REMOVING THE MOST HIGHLY ERODIBLE LAND FROM CULTIVATION.

Miscellaneous questions about CRP

Q: Won't the erosion problem start all over when the contract period ends?

Goals of the Conservation Reserve Program include planting trees in one-eighth of the acreage placed in the reserve. Farmers tend not to convert tree plantings or native grasses to row crops quickly. In addition, conservation compliance provisions will apply to land at the end of the contract period.

Q: How will a farm's program commodity base be affected by participation in the Conservation Reserve Program?

The aggregate total of all bases, allotments, and quotas will be temporarily reduced while land is in the Conservation Reserve Program, in the same ratio as the acreage placed in the reserve is to the total cropland acreage on the farm.

Q: Are payments taxable as gross income for federal income tax purposes?

Yes, all rental payments are taxable.

Q: If a farm has many different commodity bases, can a particular base be chosen for reduction?

Yes, the individual crop base to be reduced can be designated by the farmer, decreasing the aggregate base.

Q: When can payments be expected?

As soon as possible after October 1 of each calendar year for annual rental payments. Cost-sharing payments can be expected after the farmer reports that the practice has been installed.

GOALS OF THE
CONSERVATION RESERVE
INCLUDE PLANTING
TREES IN ONE-EIGHTH
OF ALL ACREAGE PLACED
IN THE RESERVE.

CONSERVATION
COMPLIANCE WILL APPLY
TO CRP LAND AT THE
END OF THE CONTRACT
PERIOD.

Q: May corporations and partnerships sign up?

Yes.

Q: If a farmer sells or transfers reserve land does the contract transfer to the new owner?

If the new owners are willing to meet the terms and conditions of the contract agreement, the contract can be transferred. If not, the selling farmer is held responsible for refunding rental and cost-share payments.

Q: Can there be more than one contract on a farm?

Yes, when the contracts have been started in different years and are based on separate bids.

Q: How will compliance be monitored?

Vegetative cover will be verified by a SCS representative. ASCS will perform random spot checks to ensure program compliance.

CORPORATIONS AND PARTNERSHIPS CAN SIGN UP FOR THE CONSERVATION RESERVE PROGRAM.

MORE THAN ONE CONTRACT CAN BE HELD ON ONE FARM, AS LONG AS THEY ARE STARTED IN DIFFERENT YEARS AND ARE BASED ON DIFFERENT BIDS.

SODBUSTER

The sodbuster provisions encourage the protection of highly erodible land. These regulations require that a farmer forfeits eligibility for USDA program benefits if an agricultural commodity is produced on highly erodible land not planted to an agricultural commodity during 1981-1985. If such a field is plowed, a conservation system must be applied to the land in order to maintain eligibility for those benefits.

A farmer who first cultivated land after December 23, 1985, but planted a crop before the regulations were issued, will retain

eligibility for the 1986 crop year. To remain eligible for subsequent years, an approved conservation plan must be applied to the land. If a highly erodible field is planted to an agricultural commodity without an approved plan, a farmer will lose eligibility for certain benefits for all the land that is farmed, not just the highly erodible area.

Highly erodible land defined.

For this provision, "highly erodible land" is defined as having a potential erosion rate more than eight times the rate at which the soil can maintain productivity. For a field to be considered highly erodible, at least one-third of the field, or more than 50 acres must be highly erodible. Employees of SCS will determine erodibility by either consulting soil maps or visiting the site.

Effective date.

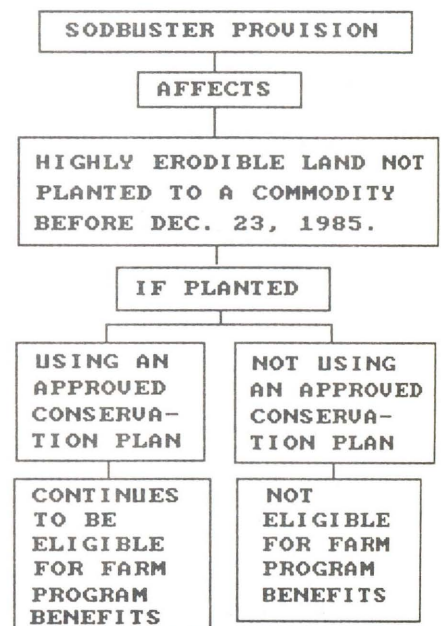
The sodbuster provision became effective December 23, 1985 when the Food Security Act was signed into law.

Commodities covered.

Agricultural commodities are defined as "any crop planted and produced by annual tilling of the soil or on an annual basis by one-trip planters or sugar cane planted or produced in a state." Crops such as alfalfa which do not require annual seeding are not considered agricultural commodities. Thus, land planted in alfalfa since 1981 would be considered "sodbuster" if it were to be cultivated for an agricultural commodity after December 23, 1985. Legislative efforts are underway to modify this latter provision.

Requirements.

To obtain USDA farm program benefits, a farmer must certify that highly erodible land has not been converted to crop production since



December 23, 1985, unless done so under a locally approved conservation system.

SWAMPBUSTER

The swampbuster provision aims to encourage the protection of wetlands, by preventing the conversion of wetlands to agricultural production.

How the program works.

The swampbuster provisions mandate that farmers who apply for USDA program benefits must certify that they are not producing an agricultural commodity on wetlands converted after December 23, 1985. To maintain eligibility for USDA farm program benefits, a farmer must meet these specifications on all land owned or operated. Conservation plans submitted by farmers may not include the conversion of existing wetlands unless the wetland is determined by the Soil Conservation Service to be of minimal value.

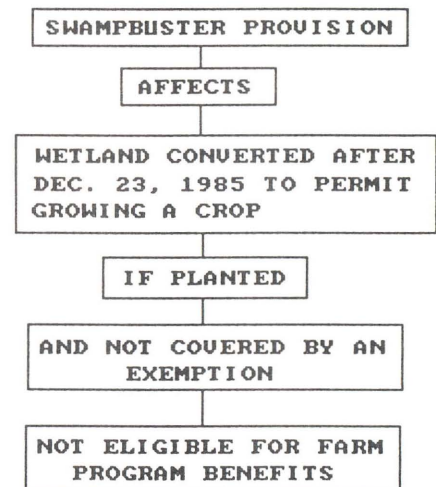
Wetlands defined.

Wetlands are defined as: (1) consisting of hydric soils; and (2) supporting primarily water loving (hydrophytic) plants. To determine whether land is classified as a wetland, the Soil Conservation Service will consult soil maps and visit the site.

A converted wetland is a wetland that has been drained, dredged, filled, leveled, or otherwise altered in order to produce an agricultural commodity.

Effective date.

Swampbuster provisions became effective December 23, 1985.



WETLANDS DEFINED:

1. CONSISTING OF HYDRIC SOILS AND
 2. SUPPORTING PRIMARILY WATER LOVING PLANTS (HYDROPHYTIC).
-

Exemptions.

Exemptions to the swampbuster provision include farmers who converted or began conversion of a wetland before December 23, 1985. Artificial wetlands are exempted, such as lakes, ponds, or wetlands created by excavating or diking nonwetland areas to collect and retain water.

----- CONSERVATION COMPLIANCE -----

The conservation compliance provision encourages producing crops on highly erodible land only when the land is adequately protected from erosion. To retain eligibility for USDA program benefits an approved conservation plan must be implemented when cultivation occurs on these lands.

How the program works.

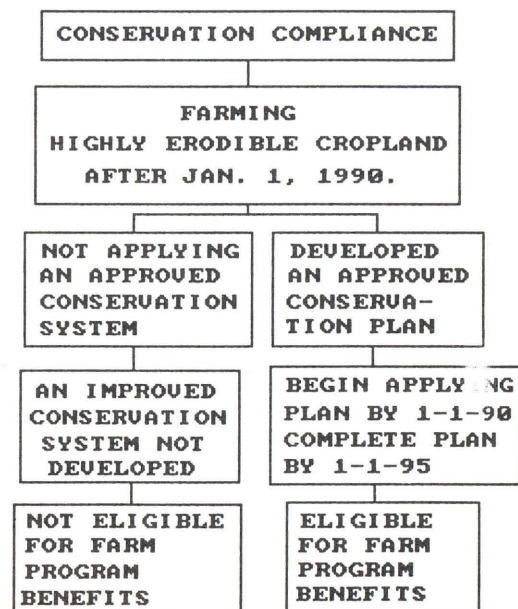
Conservation compliance requires that all highly erodible croplands, regardless of cropping history, must have a conservation plan by January 1, 1990. These plans must be approved by the local conservation district.

Highly erodible land defined.

The definition for "highly erodible land" is the same for conservation compliance as for the sodbuster provision.

Effective date.

By January 1, 1990, farmers must have developed and begun applying a conservation plan to highly erodible cropland. The conservation plan must be fully implementable by January 1, 1995. If soil maps have not been developed for a farm, there is a two year grace period after mapping for the conservation plan to be applied.



Miscellaneous questions concerning
sodbuster, swampbuster and conserva-
tion compliance.

Q: When a person is found to be in violation of the conservation provisions, will other agencies be notified?

Yes. The office that determines the violation will notify the local offices of the other agencies.

Q: Will producers be able to appeal an adverse determination?

Yes, an appeal must be processed within 15 days of the date of the determination.

Q: Will there be a certification requirement for federal crop insurance?

Yes. All producers participating in federal crop insurance programs will be required to file a Departmental certification form, on a yearly basis.

Q: Will FmHA loans made prior to Dec. 23, 1985, become due and payable if the borrower is not in compliance with the conservation provisions?

No, but borrowers or applicants not in compliance would be ineligible for further farmer program loans.

Q: Do policies, as they are currently written, allow FCIC to deny insurance to producers found to be ineligible?

Yes. All policies have a statement in the Crop, Acreage, and Share section which reads, "We may limit the insured acreage to any acreage limitation established under any Act of Congress, if we advise you of the limit prior to planting."

CONSERVATION
COMPLIANCE:

HIGHLY ERODIBLE LAND

EI \geq 8: THE
POTENTIAL EROSION OF
THE LAND MUST BE
GREATER THAN EIGHT
TIMES THE RATE AT
WHICH THE SOIL CAN
MAINTAIN
PRODUCTIVITY.

FOR A FIELD TO BE
CONSIDERED HIGHLY
ERODIBLE, AT LEAST
ONE-THIRD OF THE
FIELD, OR MORE THAN
50 ACRES MUST BE
HIGHLY ERODIBLE.

IF SOIL MAPS HAVE NOT
BEEN DEVELOPED FOR A
FARM, THERE IS A TWO-
YEAR GRACE PERIOD
AFTER MAPPING FOR THE
CONSERVATION PLAN TO
BE APPLIED.

Q: Are companies operating under a reinsurance agreement with FCIC subject to the provisions of the Act?

Yes. All insured individuals, regardless of the delivery system, pay a premium which is subsidized by the federal government, therefore they are subject to the conservation provisions.

Q: How will USDA ensure compliance?

ASCS is planning to spot check at least 15 percent of the farms participating in ASCS programs and will notify FCIC and FmHA of those producers who are ineligible.

WHEN A PERSON IS DETERMINED TO BE IN VIOLATION OF THE CONSERVATION PROVISIONS, ALL OTHER CORRESPONDING AGENCIES WILL BE NOTIFIED.

 USDA PROGRAM BENEFITS AFFECTED BY
 NONCOMPLIANCE

The USDA program benefits which would be denied under the sodbuster, swampbuster, and conservation compliance provisions include:

- *USDA price and income supports
- *disaster payments
- *crop insurance
- *Farmers Home Administration loans
- *Commodity Credit Corporation storage payments
- *farm storage facility loans
- *Conservation Reserve Program annual payment
- *other payments under which payments are made with respect to commodities produced by the farmer.

ASCS IS PLANNING TO SPOT CHECK AT LEAST 15 PERCENT OF THE FARMS PARTICIPATING IN ASCS PROGRAMS AND WILL NOTIFY FCIC AND FMHA OF PRODUCERS WHO ARE INELIGIBLE.

OPTIONS AVAILABLE TO THE FARMER

There are a variety of options available to the agricultural producer in response to the conservation provisions of the 1985 Food Security Act. These alternatives can be narrowed down to four overall possibilities. For all farmers, the first step should be to contact SCS to determine whether the provisions apply to their cropland. The options are described briefly below.

Option 1: Design and actively apply a conservation plan for all highly erodible cropland in cooperation with SCS and a local conservation district. The plan should reduce soil loss to economically and technically feasible levels. By developing and implementing the plan, a farmer will remain eligible for USDA farm program benefits.

Option 2: On land with excessive erosion where annually planted crops are grown, a permanent cover can be planted. If this option is chosen, the land may be eligible for entry into the Conservation Reserve Program. Acceptable plantings in the program include permanent grasses, legumes, trees, windbreaks, or wildlife cover.

Option 3: Crops can be produced on land designated as highly erodible without an approved conservation plan, but the farmer will no longer be eligible for USDA program benefits.

Option 4: Crops can be produced on newly converted wetlands, but eligibility for USDA program benefits will be forfeited.

ALTERNATIVES
AVAILABLE:

1. ADOPT AND APPLY A CONSERVATION PLAN FOR ALL HIGHLY ERODIBLE CROPLANDS AND PARTICIPATE IN USDA PROGRAM BENEFITS.

2. ENTER LAND INTO THE CONSERVATION RESERVE AND RECEIVE ANNUAL RENTAL PAYMENTS.

3. CULTIVATE HIGHLY ERODIBLE CROPLAND AND NOT PARTICIPATE IN USDA PROGRAM BENEFITS.

4. PRODUCE CROPS ON CONVERTED WETLANDS AND NOT PARTICIPATE IN USDA PROGRAM BENEFITS.

CONSERVATION PLANS

Conservation plans include specific, practical, cost-effective conservation measures which allow crops to be produced without excessive erosion. These plans usually include conservation practices which can decrease erosion at a fairly low cost, such as an appropriate crop rotation, conservation tillage, contour farming, terracing, and grassed waterways. SCS employees are available to aid the farmer in developing and applying a conservation plan.

Conservation planning steps.

1. A farmer should contact a soil conservationist (through the Soil Conservation Service, Cooperative Extension Service, Forest Service, and local conservation districts) to assist in interpreting data about the erosion potential of the cropland. This data will include soil types and their limitations, erosion potential, crop adaptability, production potential, and resource problems.

2. Conservation plans can then be discussed with SCS and others to assure that they are economically feasible, will overcome the erosion problems, will make better use of the soil, and will allow the farmer to remain eligible for USDA program benefits.

3. The farmer should choose a specific plan. Decisions should be made in regard to how the land and conservation practices will be used and when the planned practices will be implemented. To maintain eligibility for USDA programs, all erosion control practices must be installed by January 1, 1995.

A CONSERVATION PLAN IS:

*VOLUNTARY AND
FLEXIBLE

*SCS APPROVED

*A DOCUMENT LISTING
DECISIONS TO BE
CARRIED OUT

*RECORDED AND UPDATED

*A PLAN FOR THE LAND
OWNED AND/OR RENTED
BY THE FARMER

4. Good records should be kept of all conservation plan decisions and how they fit into overall farm operations. These records of decisions need to be approved by SCS and the local conservation district.

5. The conservation plan should be updated when circumstances change. All changes should be discussed with SCS beforehand to assure continued approval. When a conservation plan is implemented it becomes the conservation system for the highly erodible land.

Establishing vegetative cover.

Through the Conservation Reserve Program, cost sharing can be established between the government and the farmer in order to develop permanent vegetative cover on the land. The purpose of establishing this cover is to protect the soil and decrease water, air and land pollution. This program is voluntary. One or more of five permanent vegetative cover types can be established with up to 50 percent of establishment costs being covered by USDA. Eligible permanent cover types include: trees, native and introduced grasses and legumes, wildlife habitat, and field windbreaks.

----- **PLANTING TREES** -----

Tree planting efforts have been greatly expanded under the Conservation Reserve Program. The main advantages of planting trees are the soil, water, and wildlife benefits which should continue beyond the life of the contract. In some cases it may cost less for the farmer to plant trees than to establish grass cover.

Trees can generally be planted without extensive preparation and

CONSERVATION PLANS
SHOULD BE DISCUSSED
WITH SCS AND OTHERS
AGENCIES TO ASSURE
THEY ARE ECONOMICALLY
FEASIBLE AND WILL
OVERCOME EROSION
PROBLEMS.

WHEN A CONSERVATION
PLAN IS IMPLEMENTED
IT BECOMES THE
CONSERVATION SYSTEM
FOR THE HIGHLY
ERODIBLE LAND.

PERMANENT VEGETATIVE
COVER TYPES CAN BE
ESTABLISHED WITH UP
TO 50 PERCENT OF
ESTABLISHMENT COSTS
BEING COVERED BY USDA
THROUGH THE CRP.

costly fertilizers. Farmers can obtain additional income from the trees through recreational uses, such as hunting. After the contract period is fulfilled, harvested trees can provide income for the landowner, wood for the consumer, and employment for the local community. Any wood products removed during the contract period, such as for pruning and thinning, cannot be sold or otherwise commercially used. Trees used for commercial purposes cannot be planted on CRP land, such as Christmas, orchard, nut, or ornamental trees.

Establishing tree and shrub cover on reserve land enhances soil erosion control, while also providing food and cover for wildlife. To achieve the best erosion control, a wind break consisting of 1 to 7 rows of trees and/or shrubs could be planted on the windward side of the field. The range of species of plants that are appropriate is nearly unlimited. Recommended species include Autumn Olive, Crab Apple, Silky Dogwood, White Spruce, Norway Spruce, and Jack Pine.

TREES CAN GENERALLY
BE PLANTED WITHOUT
EXTENSIVE PREPARATION
AND COSTLY
FERTILIZERS.

BY ESTABLISHING TREE
AND SHRUB COVER ON
CONSERVATION RESERVE
LAND, SOIL EROSION
CONTROL IS ENHANCED
WHILE ALSO PROVIDING
FOOD AND COVER FOR
WILDLIFE.

ELIGIBLE PERMANENT COVER TYPES:

- *TREES
 - *GRASSES AND LEGUMES
 - *WILDLIFE HABITAT
 - *FIELD WINDBREAKS
-



Section III:

**Benefits and
Costs of the
Conservation
Provisions**



 NATIONAL ECONOMIC IMPACTS

Retiring highly erodible and fragile cropland will impact the production of crops, and can potentially affect commodity prices. The greatest impact will be realized if the CRP includes both surplus acres in price support programs and the highly erodible lands.

Impact on Production.

A study completed by USDA estimated that by retiring all highly erodible land in the United States the smallest impact will be seen in cotton production and the greatest in the production of oats, corn, and soybeans. Listed on the following page are the percentages of acres planted on highly erodible land (HEL) in the United States. The percentage of total U.S. crop production from highly erodible land is shown in Figure 3.1.

USDA ESTIMATES THAT BY RETIRING ALL HIGHLY ERODIBLE LAND, THE SMALLEST IMPACT WILL BE SEEN ON COTTON PRODUCTION AND THE GREATEST ON THE PRODUCTION OF OATS, CORN, AND SOYBEANS.

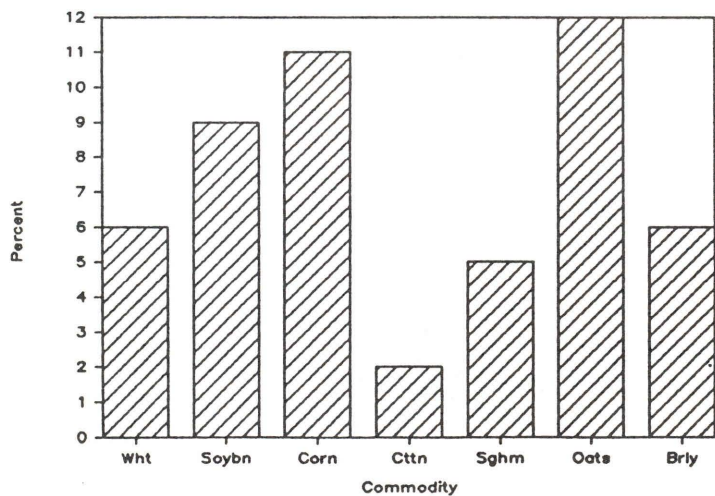


Figure 3.1. Percentage of each commodity produced on highly erodible land.

Source: Webb et. al., 1986.

*Wheat: 8 percent of wheat acres are planted on HEL, this accounts for 6 percent of U.S. wheat production.

*Soybeans: 11 percent of soybean acres are planted on HEL, this accounts for 9 percent of U.S. soybean production.

*Corn: 15 percent of corn acres are planted on HEL, this accounts for 11 percent of U.S. corn production.

*Cotton: 3 percent of cotton acres are planted on HEL, this accounts for 2 percent of U.S. cotton production.

*Sorghum: 9 percent of sorghum acres are planted on HEL, this accounts for 5 percent of U.S. sorghum production.

Within the Great Lake States, 1.4 percent of wheat is produced on highly erodible land, 2.5 percent of soybeans, 8.7 percent of corn, 2.6 percent of sorghum, 6 percent of oats, and 1.1 percent of barley.

Impacts on Farm Prices.

The USDA also estimated the expected impacts on prices resulting from implementation of the Conservation Reserve Program. The crop prices were based on the loan rates contained in the 1984 Agricultural Adjustment Act. These rates were then used as the basis for evaluation of their impacts on prices, production, and government deficiency and storage payments by the establishment of the Conservation Reserve Program.

For both wheat and cotton, the USDA estimated that retiring all the highly erodible wheat and cotton acres would not have a significant impact upon farm prices because surplus capacity is greater than the amount meeting CRP criteria. Thus, prices of wheat and cotton should remain relatively near the loan rate.

For corn, sorghum, and barley, it was estimated that acreage needed

CROP	PERCENT
WHEAT	1.4
SOYBEANS	2.5
CORN	8.7
SORGHUM	2.6
OATS	6.0
BARLEY	1.1

Table 3.1. The percentage of commodities grown on highly erodible land in the Great Lake States.

Source: Webb et al., 1986

to be set aside to lower surplus levels can be met through idling highly erodible land. Farm prices of these crops, therefore, could increase marginally if all of this erosive land were put into the Reserve.

Soybeans and oats do not have acreage reduction programs to support their prices. Since these crops have a significant proportion of acreage on highly erodible land, prices of these crops could increase marginally if highly erodible land is put into the reserve.

Impact upon Governmental Agencies.

The Soil Conservation Service will play a large role in helping farmers comply with the conservation compliance provision by 1990. The National Association of Conservation Districts has estimated that SCS will need about 3,000 additional technicians to accomplish this task, at a cost of approximately \$95 million. To offset this cost, local conservation district are urged to develop ways to help SCS provide the needed technical assistance. Federal funding may be necessary to encourage local efforts.

----- IMPACTS UPON THE STATE OF MICHIGAN -----

There will be both benefits and costs in Michigan resulting from implementation of the conservation provisions. Physical, economic, and social consequences can be expected.

The Conservation Reserve Program.

The Soil Conservation Service hopes to enroll approximately 200,000 acres of Michigan's highly erodible cropland into the Conservation Reserve Program over a five year time span from 1985 to 1990. There are over 600,000 eligible acres of highly erodible land in Michigan. This is approximately

IT IS ESTIMATED THAT SCS WILL NEED ABOUT 3,000 ADDITIONAL TECHNICIANS, AT A COST OF APPROXIMATELY \$95 MILLION, TO IMPLEMENT THE CONSERVATION COMPLIANCE PROVISION.

THE SOIL CONSERVATION SERVICE HOPES TO ENROLL APPROXIMATELY 200,000 ACRES OF MICHIGAN'S HIGHLY ERODIBLE CROPLAND INTO THE CONSERVATION RESERVE PROGRAM.

7 percent of total cropland acreage.

For the CRP, cost-sharing per acre for conservation practices is estimated in Michigan at an average of \$33.68. By pool, these averages are:

Pool 1 - \$37.00
Pool 2 - \$37.26
Pool 3 - \$23.68

The average rental rate for highly erodible land over the first three bidding periods was \$54.40 per acre per year in Michigan (SCS, 1986). Broken down into bidding pools (Fig. 3.2) the averages were:

Pool 1 - \$39.04
Pool 2 - \$55.19
Pool 3 - \$58.21

These averages are expected to change as more land is bid into the reserve. Nationwide, participating farmers have received an average of \$54.23 per acre per year (Fig. 3.3).

Commodities Produced.

As land is placed into the Conservation Reserve Program and affected by conservation compliance, the mix of commodities produced within Michigan will change. According to ASCS, the commodities which are expected to see the largest change in production are corn, soybeans, and wheat. These crops are produced in areas where erosion is the most severe. Some regions will be affected to a greater degree than others. Those areas not heavily dependent on major crops for the local economy will see less economic consequences. This is true also for impacts resulting from the sodbuster and swampbuster requirements.

Expected environmental consequences.

The expected environmental benefits from the conservation provisions include improved land, air, and water quality for the state

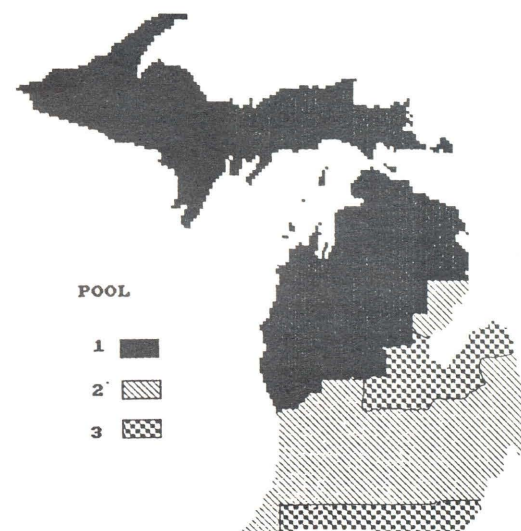


Fig. 3.2. CRP bidding pools in Michigan.

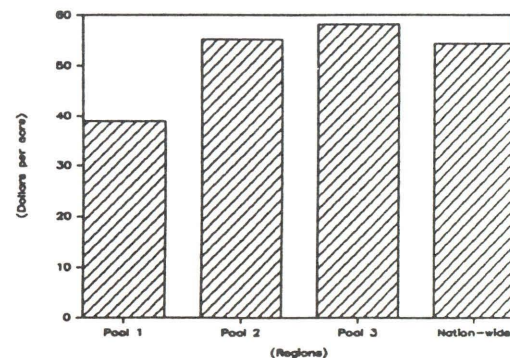


Fig. 3.3. Average rental rate for land placed in the CRP, by Michigan bidding pools.

Source: SCS, 1986.

as well as the nation as a whole. Fish and wildlife habitat of the state should improve, the amount of pesticides applied to the land will decrease, and with increased tree plantings the state's natural resources base will be enhanced.

BENEFITS AND COSTS FOR THE FARMER

Erosion reduces productivity primarily by carrying away soil nutrients, decreasing the amount of water the soil can hold, and restricting the crop rooting zone. Farm management and conservation practices can restore these important characteristics of soil only to a certain extent. Erodible land is also less responsive to new crop varieties or other technologies than is protected land. The costs and benefits of installing conservation practices relative to the costs of continued erosion is the central issue facing farmers. Decisions must be made whether to comply with the conservation provisions and/or enroll land in the Conservation Reserve Program.

Deciding upon a conservation plan.

A farmer must weigh the costs of implementing a conservation plan against the costs of allowing erosion to continue. Productivity costs from erosion fall into four categories:

- (1) the costs of reduced production because of the decline in soil productivity;
- (2) the costs of compensating for erosion damage by adding fertilizer to replace soil nutrients;
- (3) the costs of erosion control practices used to avoid losses;
- (4) the costs of damage to crops grown on highly erosive soils, such as wind and rill erosion damages.

BENEFITS FROM CONTROLLING SOIL EROSION:

- * INCREASES THE PRODUCTIVITY OF THE SOIL; THUS, INCREASES YIELDS PRODUCED ON HIGHLY EROSION LANDS;
 - * THE AGRICULTURAL PRODUCER REMAINS ELIGIBLE FOR USDA FARM PROGRAM BENEFITS; AND
 - * AIR, LAND, AND WATER QUALITY ON AND OFF THE FARM IS ENHANCED.
-

EROSION AFFECTS PRODUCTIVITY COSTS BY:

- *DECREASING YIELDS
 - *INCREASING USE OF FERTILIZERS TO COMPENSATE FOR EROSION
 - *COST OF EROSION CONTROL PRACTICES
 - *EROSION DAMAGES TO CROPS
-

Costs for erosion control practices average \$7.00 to \$13.00 annually per affected acre according to USDA estimates. These costs must be weighed against the benefits of implementing a conservation plan. Benefits include:

- (1) increasing the productivity of the soil, thus, increasing yields produced on highly erosive lands;
- (2) remaining eligible for USDA farm program benefits; and
- (3) enhancing air, land, and water quality both on and off the farm.

The Conservation Reserve Program:
"To bid or not to bid".

Farmers face important management decisions as they consider offering eligible land to the CRP. The accepted bid for the acreage must be sufficient to offset the income which could have been earned from that land during the 10 year contract. Several factors should be taken into account when formulating a bid.

1. A bid which is higher than the minimum needed to break even over the contract period can be submitted. If this bid is not accepted, another bid for the same acres can be submitted in succeeding years, assuming the reserve is still open.

2. The CRP provides a guaranteed payment for 10 years. This is less risky than receiving income from crop production.

3. The total allotments and bases on a farm are reduced during the contract period by the same percentage as the CRP acreage is to total cropland on the farm. Allotments and bases are restored when the contract expires. Farmers may participate in the annual Acreage Reduction Program on land not entered into CRP.

THE ACCEPTED BID FOR THE ACREAGE SHOULD BE SUFFICIENT TO OFFSET THE INCOME WHICH COULD HAVE BEEN EARNED FROM THAT LAND DURING THE CONTRACT PERIOD.

THE CONSERVATION RESERVE PROGRAM PROVIDES A GUARANTEED PAYMENT.

4. Depending upon the number of acres placed in the reserve, further cost savings may be possible, such as from reducing machinery or labor expenditures.

5. The rental payment received for reserve land is fixed for the entire contract period. Policy or market changes may occur over this time which could either increase or decrease the net returns from planted crops.

6. At the end of the contract period the economic value of reserve acres may have increased. This is especially true if long term crops such as trees are planted.

Formulating a bid for the CRP.

To help estimate the minimum bid needed to offset the cost of taking land out of production and placing it into the Conservation Reserve Program, careful budget analysis is recommended. For this purpose an example work sheet has been included in the Appendix.

Tax policies and conservation compliance.

All rental payments for reserve land are taxable as gross income for federal tax purposes. Tax legislation changed in 1986 in regard to land management. Farmers can no longer claim immediate tax deductions for land clearing. These deductions can be made only for soil and water conservation costs that are consistent with USDA or state conservation plans. Also, forest landowners, farmers and other are no longer able to use long-term capital gains treatment for profits from the sale of timber and for livestock used for dairy, draft, breeding or sporting purposes.

THE ECONOMIC VALUE OF ACRES PLACED IN THE RESERVE MAY HAVE INCREASED AT THE END OF THE CONTRACT PERIOD, ESPECIALLY IF LONG TERM CROPS SUCH AS TREES ARE PLANTED.

FARMERS CAN NO LONGER CLAIM IMMEDIATE TAX DEDUCTIONS FOR LAND CLEARING. DEDUCTIONS CAN BE MADE ONLY FOR SOIL AND WATER CONSERVATION COSTS THAT ARE CONSISTENT WITH USDA OR STATE CONSERVATION PLANS.

OFF-FARM IMPACTS

The Conservation Foundation, a non-profit research and education foundation in Washington D.C., recently estimated that off-farm erosion damage costs the nation between \$3.4 and \$13.0 billion annually with a "best guess" estimate being \$6.1 billion. These costs are borne by both farmers and nonfarmers. It is difficult to identify the actual cause of the erosion damage. Costs include both in-stream and off-stream erosion results. In-stream damages include loss of recreational values, loss of lake and reservoir capacity, increased costs of keeping navigable waterways clear of sediment and further miscellaneous costs.

Not included in the Conservation Foundation's study were costs imposed upon fish population and other aquatic life harmed by sediment in the water. Suspended particles in the water make it difficult for fish to breathe by reducing the water's oxygen supply. Also, some pesticides adhere to soil particles which contaminate water and may kill fish and damage aquatic systems.

The use of conservation practices will benefit individuals both on and off the farm. Societal choices of high quality air, land, and water will be enhanced through sound management practices.

**OFF-FARM EROSION
DAMAGE COSTS THE
NATION BETWEEN \$3.4
BILLION AND \$13.0
BILLION ANNUALLY.**

**THE USE OF CONSERVA-
TION PRACTICES WILL
BENEFIT INDIVIDUALS
BOTH ON AND OFF THE
FARM.**



Section IV:

Michigan Involvement



ERODIBLE LANDS IN MICHIGAN^{1,2}

Figure 4.1 shows the distribution of Michigan lands eligible for the Conservation Reserve Program by county, as defined by 1987 criteria. Lands eligible are: (1) croplands in capability classes VI, VII, or VIII; (2) cropland in capability classes II-V eroding at higher than 3T; and/or (3) cropland with an EI index greater than or equal to 8 and eroding at a rate higher than that recommended in the SCS Field Office Technical Guide.

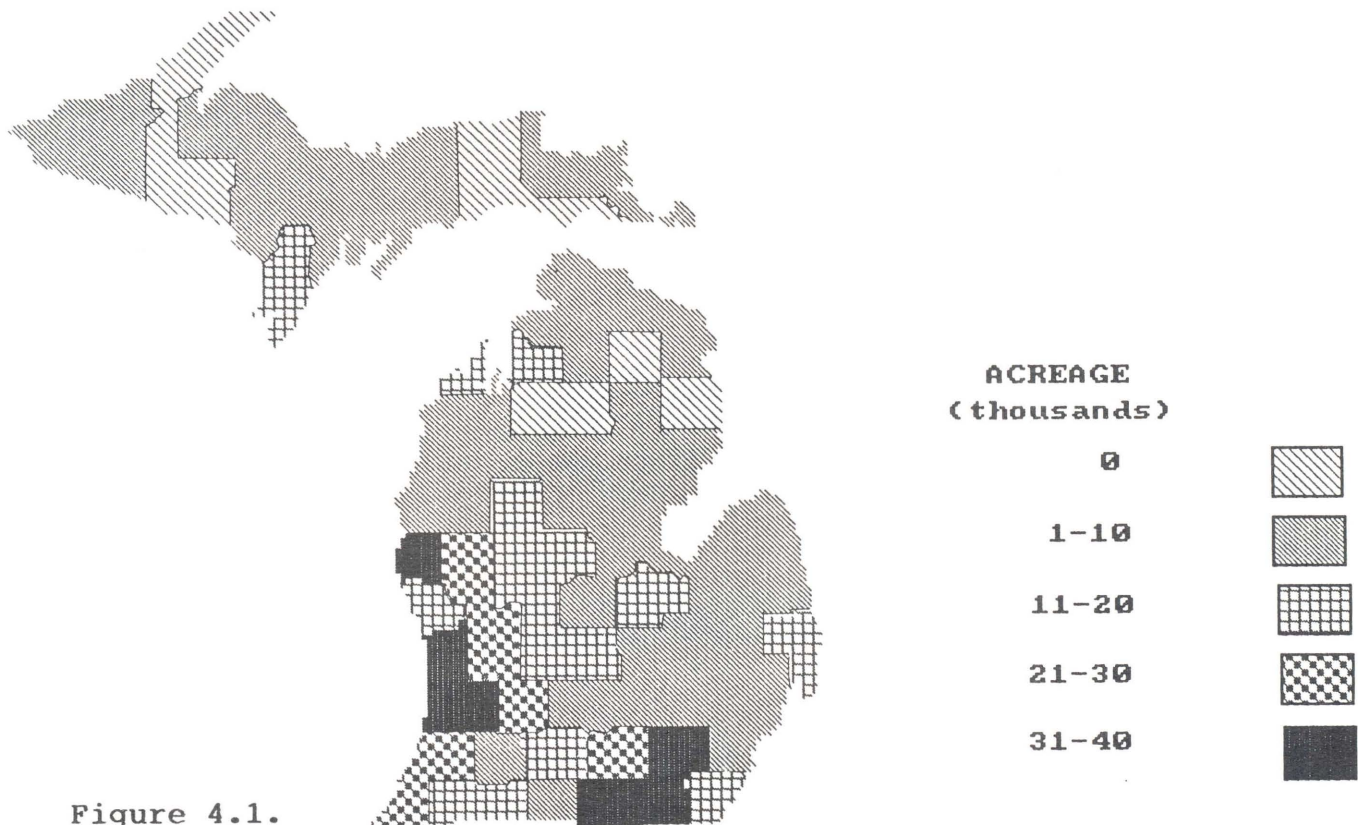


Figure 4.1.

¹The Appendix contains a Michigan county map for reference.

²Data for the acreage affected by the conservation provisions was derived from analysis of the 1982 National Resource Inventory.

Figure 4.2 represents Michigan acreage eligible for the Conservation Reserve Program as defined by criteria established for 1988. Lands eligible are those which have an erodibility index greater than or equal to 8, or are eroding at a rate higher than that recommended in the SCS Field Office Technical Guide.

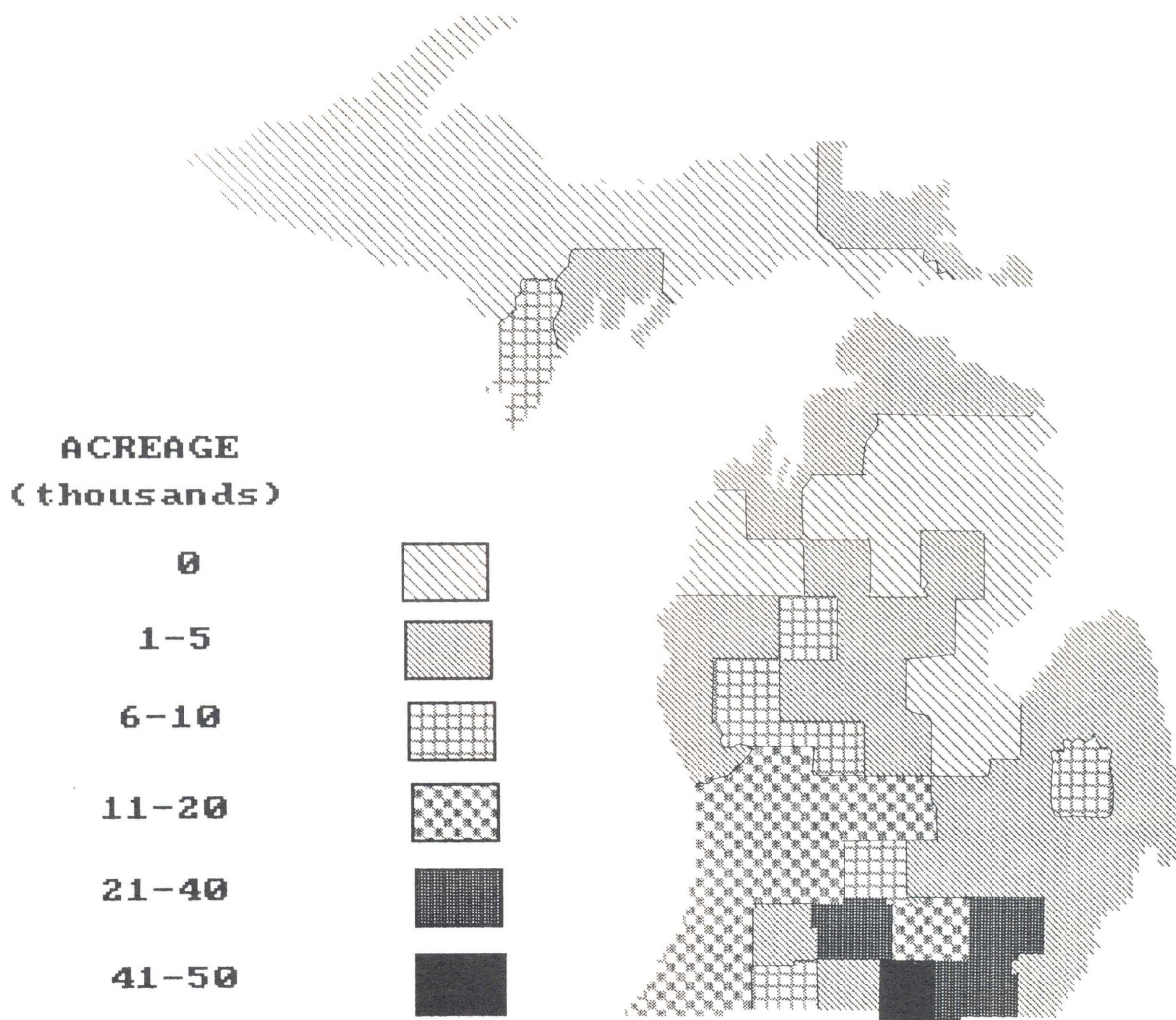


Figure 4.2.

Figure 4.3 represents those lands in Michigan which will be affected by the Conservation Compliance provisions of the 1985 Food Security Act. Conservation plans must be established on land having erosion potential greater than or equal to an EI of 8, in order for all USDA farm program benefits to be retained.

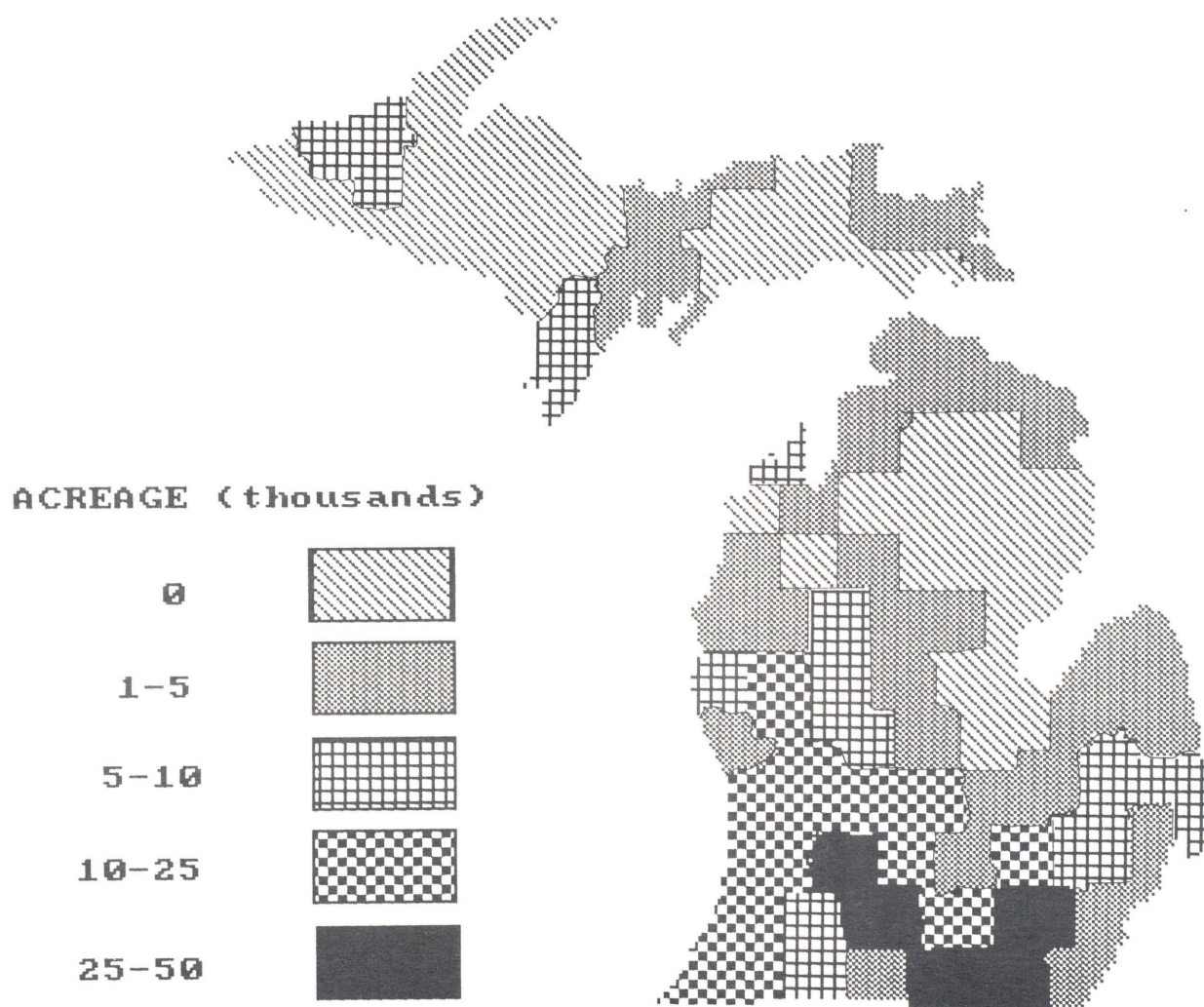


Figure 4.3.

**MICHIGAN'S CURRENT INVOLVEMENT IN
THE CONSERVATION RESERVE PROGRAM**

Figure 4.4 represents the number of acres in Michigan, by county, enrolled in the Conservation Reserve Program in 1986 (three bidding periods).

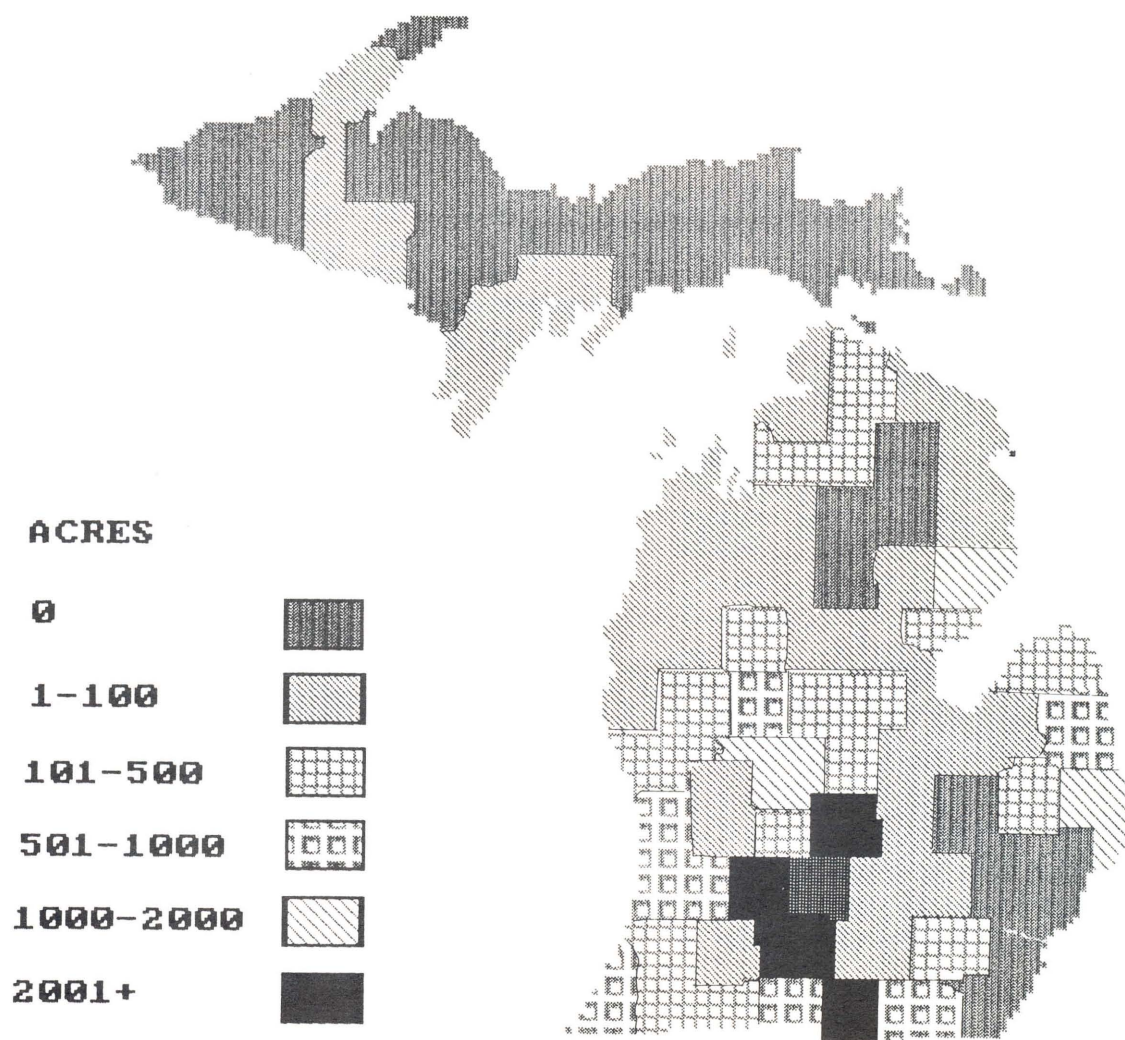


Figure 4.4.

Figure 4.5 represents the number of acres in Michigan, by county, planted in trees under the Conservation Reserve Program in 1986 (three bidding periods).

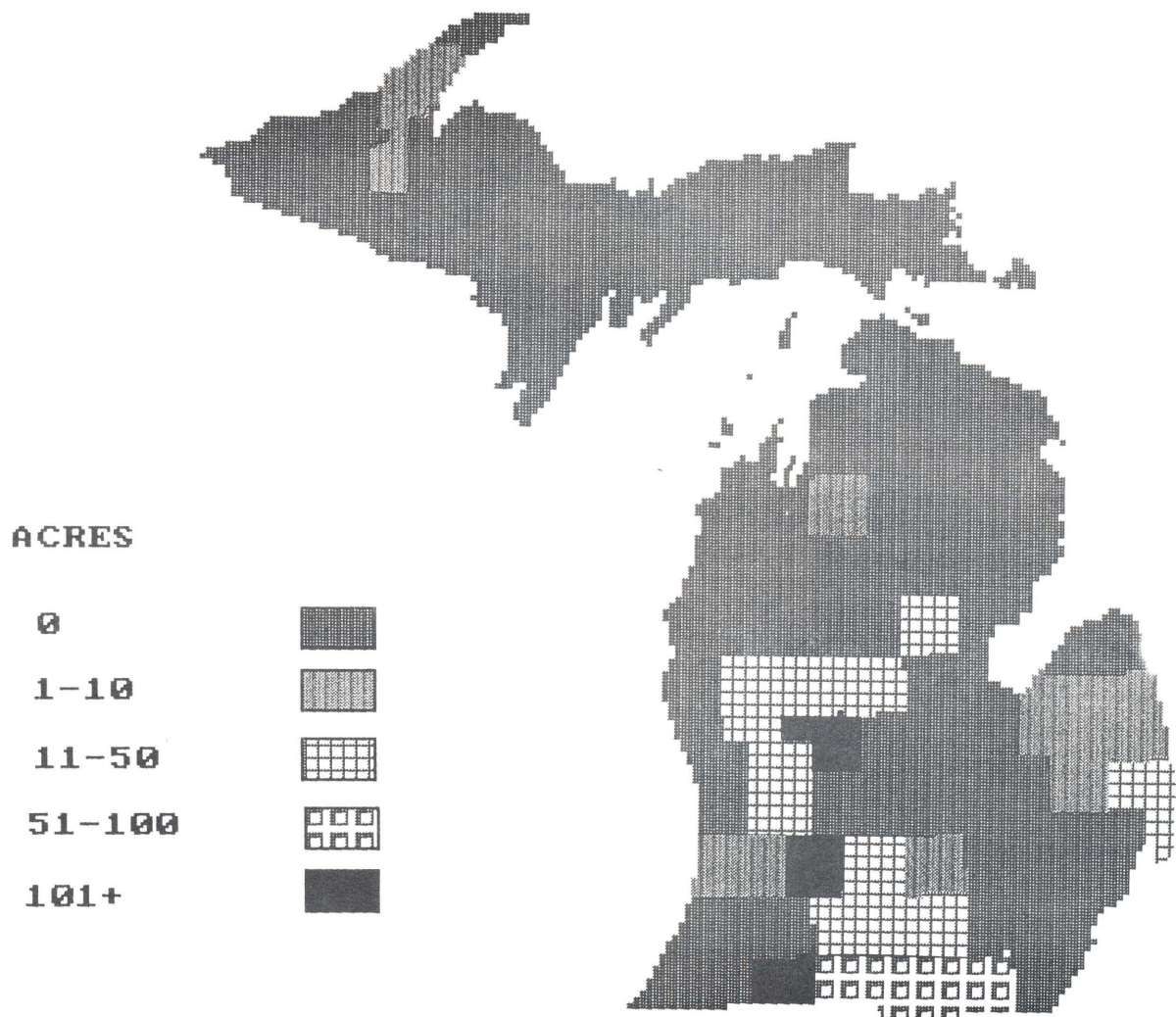


Figure 4.5.

WETLANDS IN MICHIGAN

Agricultural development has been responsible for 87 percent of the recent loss of wetlands in the United States (Figure 4.6). In Michigan alone, 71 percent of all wetlands have been destroyed through agriculture and commercial expansion (Figure 4.7). In the Midwest, agricultural development is a threat to the remaining inland wetlands. Coastal marshes along the Great Lakes are continually impacted by industrial, residential, and agricultural expansion. It is estimated that Michigan is losing 6,500 wetland acres per year (Weller, 1981). The Swampbuster provision of the 1985 Food Security Act is directed at decreasing this substantial loss of wetlands.

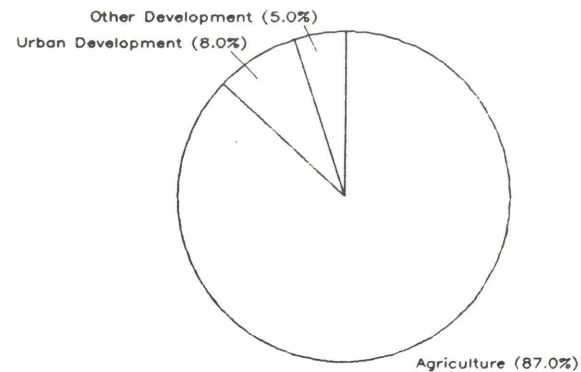


Figure 4.6. Causes of recent wetland losses in the United States.

Source: U.S.D.A., March 1984.

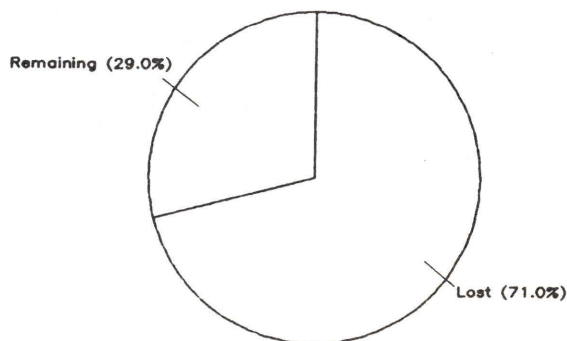


Figure 4.7. Loss of wetland in Michigan since the original settlement of the state.

Source: MDNR, 1982.

IT IS ESTIMATED THAT MICHIGAN IS LOSING 6,500 WETLAND ACRES PER YEAR.

Figure 4.8 represents the number of wetland acres, by county, in Michigan. Total wetland acreage equals 4,010,000 acres.³

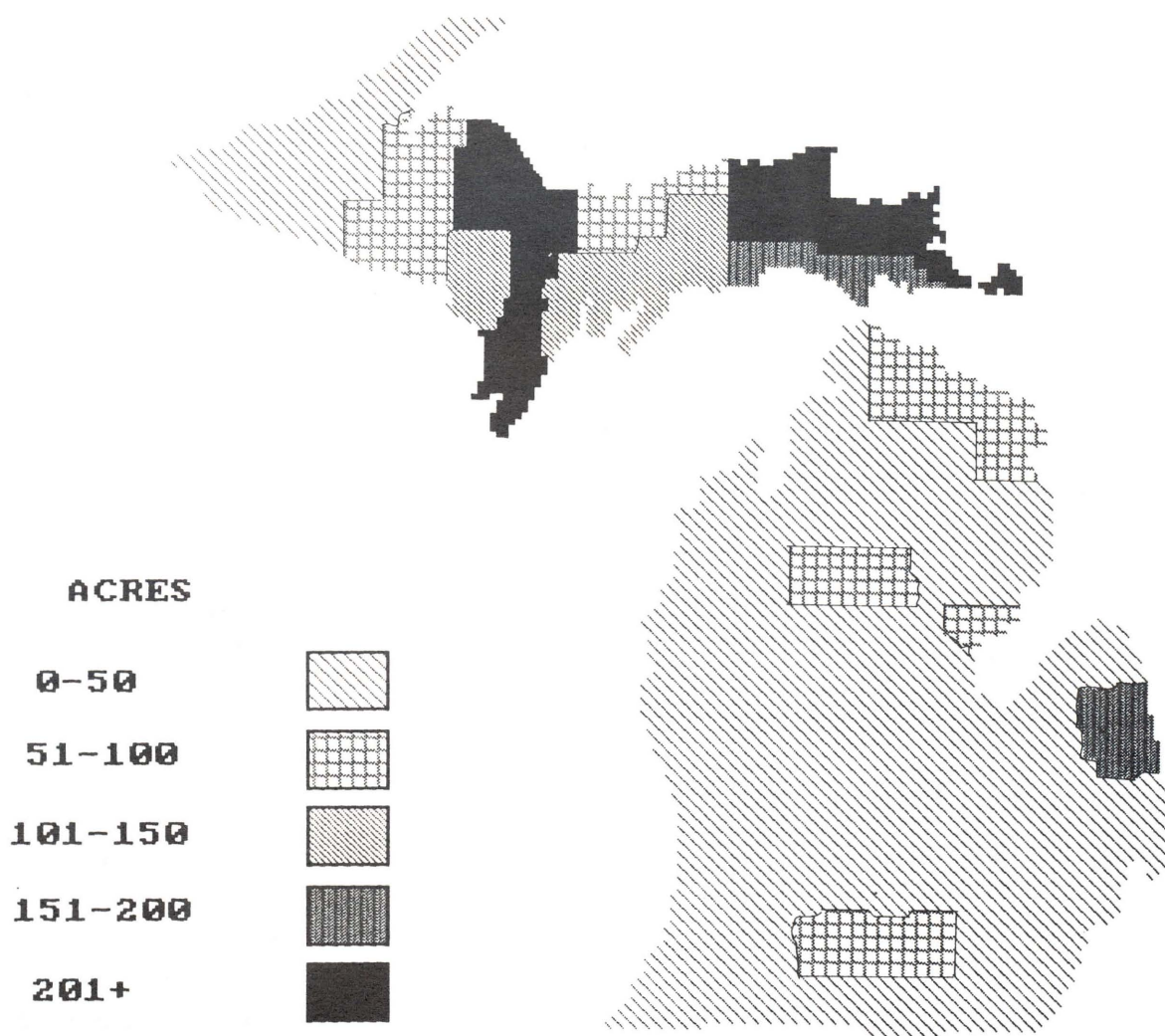


Figure 4.8.

³One reason Sanilac County (in the thumb region of Michigan) stands out is because it reported Type I wetlands. Type I wetlands are defined as land often covered by water during seasonal periods, yet usually well drained during much of the growing season. The surrounding counties did not report these types of wetlands.

Figure 4.9 represents Michigan wetlands with medium to high potential for conversion to cropland. Thus, those lands with a high potential for "swampbusting" are represented.

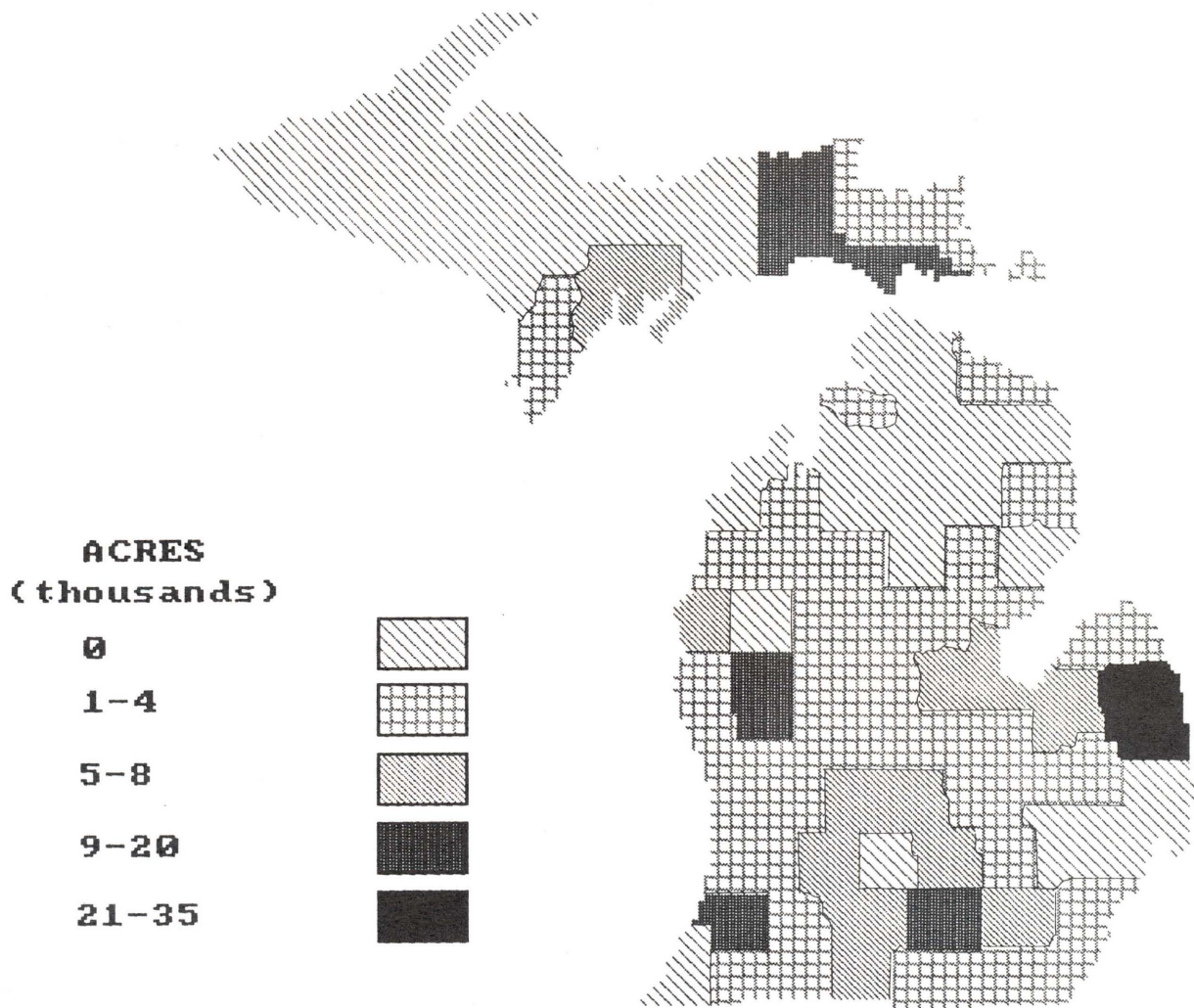


Figure 4.9.



Section V:
**General
Information**



VIEWPOINT / AN EDITORIAL

A Lou Harris poll has announced that nearly all Americans support soil conservation. The conservation provisions contained within the Food Security Act of 1985 reflect this support. The provisions aim to maintain the quality of our agricultural land while discouraging the conversion of wetlands and highly erodible land to use as cropland. This is a very noble effort.

Erosion can be combatted only by changing the ways in which land managers use the land. Their actions in producing food determine the rate at which soil is displaced. If soil loss is going to be reduced, farmers must use their land differently. All recent conservation policies have attempted to alter farmers' land use behavior in the interest of protecting soil. The conservation provisions of the 1985 farm bill tend to increase the obligation of farmers to conserve soil by requiring that they reduce erosion to be eligible for various farm program benefits. These provisions are also designed to remove inconsistencies between commodity and conservation programs. The result should be greater coherence among federal programs for agriculture. This seems reasonable. Some responsibility for protecting soil quality and quantity should be prerequisite to getting production and income assistance.

Under these new conservation initiatives, farmers will bear a larger share of the cost for soil conservation than has been true in the past. Producers will sacrifice some land-use options as the rules seek to make them more responsible land managers. A question of who should pay for these conservation and environmental goals surfaces. In the past, conservation has been a matter of education, voluntary effort, personal commitment and cost-share funds. These things seem to work as long as the separable direct and indirect benefits are greater than the inconvenience to the farmer. Apparently, those incentives have been inadequate to accomplish levels of conservation which society wants. Thus, these new conservation provisions shift greater responsibility to farmers as land users, while at the same time they offer to bid away from farmers the right to permit erosion greater than that acceptable to society.

The conservation provisions are causing operational headaches. Government agencies face new challenges in making the provisions effective. Increased day to day cooperation is required as well as expanded local and state efforts to aid farmers in complying with the provisions. These are a small price to pay for legislation that should improve conservation practices and returns to farm operators, both important goals.

AGENCIES AVAILABLE FOR ASSISTANCE

The agencies available to explain, advise, and monitor farmers in regard to the various conservation provisions are the Soil Conservation Service (SCS), Agricultural Stabilization and Conservation Service (ASCS), and the Cooperative Extension Service (CES).

The Soil Conservation Service determines whether the land is highly erodible or a wetland, and if a conservation plan is being actively applied. The Agricultural Stabilization and Conservation Service determines whether an agricultural commodity has been produced and the definition of the boundaries of fields containing highly erodible lands or wetlands. The Cooperative Extension Service provides general information dealing with agricultural and forestry concerns.

If a farmer has specific questions in regard to the provisions, one of these offices should be contacted. The office to be contacted should be located within the county where land is managed. Phone numbers for county or district offices in Michigan are listed on the following three pages.

AGENCIES AVAILABLE TO AID FARMERS IN REGARD TO THE CONSERVATION PROVISIONS ARE THE SOIL CONSERVATION SERVICE, AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE, AND THE COOPERATIVE EXTENSION SERVICE.

ALCONA

SCS 517-724-5272
 ASCS 517-736-8245
 CES 517-724-6478

ALGER

SCS 906-226-9460
 ASCS 906-439-5119
 CES 906-387-2530

ALLEGAN

SCS 616-673-8903
 ASCS 616-673-6940
 CES 616-673-8471

ALPENA

SCS 517-356-6038
 ASCS 517-356-0522
 CES 517-354-3636

ANTRIM

SCS 616-533-8709
 ASCS 616-533-8542
 CES 616-533-8607

ARENAC

SCS 517-846-4566
 ASCS 517-846-4565
 CES 517-846-4111

BARAGA

SCS 906-482-0360
 ASCS 906-524-6065
 CES 906-524-6300

BARRY

SCS 616-948-8038
 ASCS 616-948-8037
 CES 616-948-4862

BAY

SCS 517-684-1040
 ASCS 517-686-0430
 CES 517-893-3523

BENZIE

SCS 616-889-4761
 ASCS 616-882-7281
 CES 616-882-9671

BERRIEN

SCS 616-429-4231
 ASCS 616-429-5634
 CES 616-983-7111

BRANCH

SCS 517-278-8008
 ASCS 517-278-2725
 CES 517-279-8411

CALHOUN

SCS 616-781-4264
 ASCS 616-781-4263
 CES 616-781-0784

CASS

SCS 616-445-8643
 ASCS 616-445-8641
 CES 616-445-8661

CHARLEVOIX

SCS 616-582-7341
 ASCS 616-347-2133
 CES 616-582-6232

CHEBOYGAN

SCS 616-627-2565
 ASCS 517-733-8323
 CES 616-625-9815

CHIPPEWA

SCS 906-632-7051
 ASCS 906-632-8901
 CES 906-635-6381

CLARE

SCS 517-539-6401
 ASCS 517-539-7892
 CES 517-539-7805

CLINTON

SCS 517-224-4318
 ASCS 517-224-3720
 CES 517-224-3288

CRAWFORD

SCS 517-732-6526
 ASCS 517-275-5231
 CES 517-348-2841

DELTA

SCS 906-786-8212
 ASCS 906-786-8211
 CES 906-786-3032

DICKINSON

SCS 906-774-1550
 ASCS 906-774-2392
 CES 906-774-0363

EATON

SCS 517-543-1539
 ASCS 517-543-1512
 CES 517-543-2310

EMMET

SCS 616-582-7341
 ASCS 616-347-2133
 CES 616-348-1770

GENESEE

SCS 313-789-1281
 ASCS 313-787-5111
 CES 313-732-1474

GLADWIN

SCS 517-426-9621
 ASCS 517-426-9461
 CES 517-426-7741

GOGEBIC

SCS 906-884-2141
 ASCS 906-988-2530
 CES 906-932-1420

GRAND TRAVERSE

SCS 616-941-0960
 ASCS 616-941-0951
 CES 616-941-2256

GRATIOT

SCS 517-875-3401
 ASCS 517-875-3900
 CES 517-875-4125

HILLSDALE

SCS 517-439-1497
 ASCS 517-439-1496
 CES 517-439-9301

HOUGHTON

SCS 906-482-0360
 ASCS 906-524-6065
 CES 906-482-5830

HURON

SCS 517-269-9540
 ASCS 517-269-9549
 CES 517-269-9949

INGHAM

SCS 517-676-5543
 ASCS 517-676-4644
 CES 517-676-0212

IONIA

SCS 616-527-2620
 ASCS 616-527-2098
 CES 616-527-5357

IOSCO

SCS 517-362-2591
 ASCS 517-362-3842
 CES 517-362-3449

IRON

SCS 906-875-3765
 ASCS 906-774-2392
 CES 906-875-6642

ISABELLA

SCS 517-772-9152
 ASCS 517-772-5927
 CES 517-772-0911

JACKSON

SCS 517-784-2800
 ASCS 517-789-7716
 CES 517-788-4292

KALAMAZOO

SCS 616-327-0696
 ASCS 616-327-0940
 CES 616-383-8830

KALKASKA

SCS 616-533-8709
 ASCS 616-258-9154
 CES 616-258-5074

KENT

SCS 616-361-5345
 ASCS 616-456-2341
 CES 616-774-3265

KEWEENAW

SCS 906-482-0360
 ASCS 906-524-6065
 CES 906-482-5830

LAKE

SCS 616-832-5438
 ASCS 616-832-5341
 CES 616-745-2732

LAPEER

SCS 313-664-3941
 ASCS 313-664-0895
 CES 313-667-0341

LEELANAU

SCS 616-256-9783
 ASCS 616-256-9791
 CES 616-256-9888

LENAWEE

SCS 517-265-5887
 ASCS 517-265-8911
 CES 517-265-5651

LIVINGSTON

SCS 517-548-1553
 ASCS 517-548-1552
 CES 517-546-3950

LUCE

SCS 906-341-5853
 ASCS 906-477-6461
 CES 906-293-3203

MACKINAC

SCS 906-341-5853
 ASCS 906-477-6461
 CES 906-643-7307

MACOMB

SCS 313-727-2306
 ASCS 313-727-1066
 CES 313-469-5180

MANISTEE

SCS 616-889-4761
 ASCS 616-889-4454
 CES 616-889-4277

MARQUETTE

SCS 906-226-9460
 ASCS 906-439-5119
 CES 906-475-7808

MASON

SCS 616-757-3708
 ASCS 616-757-3707
 CES 616-757-4789

MECOSTA

SCS 616-796-2650
 ASCS 616-796-2659
 CES 616-592-0792

MENOMINEE

SCS 906-753-2513
 ASCS 906-753-6921
 CES 906-753-2209

MIDLAND

SCS 517-835-1921
 ASCS 517-832-3651
 CES 517-832-6640

MISSAUKEE

SCS 616-839-7193
 ASCS 616-839-2069
 CES 616-839-4667

MONROE

SCS 313-241-7755
 ASCS 313-241-8540
 CES 313-243-7113

MONTCALM

SCS 517-831-4606
 ASCS 517-831-4212
 CES 517-831-5226

MONTMORENCY

SCS 517-356-6038
 ASCS 517-356-0522
 CES 517-785-4177

MUSKEGON

SCS 616-788-3492
 ASCS 616-788-4488
 CES 616-724-6361

NEWAYGO

SCS 616-924-2060
 ASCS 616-924-2230
 CES 616-924-0500

OAKLAND

SCS 313-666-2232
 ASCS 313-666-2212
 CES 313-858-0880

OCEANA

SCS 616-861-4967
 ASCS 616-861-5600
 CES 616-873-2129

OGEMAW

SCS 517-345-5473
 ASCS 517-345-5472
 CES 517-345-0692

ONTONAGON

SCS 906-884-2141
 ASCS 906-988-2530
 CES 906-884-4386

OSCEOLA

SCS 616-832-5438
ASCS 616-832-5341
CES 616-832-9011

OSCODA

SCS 517-345-5473
ASCS 517-345-5472
CES 517-826-3241

OTSEGO

SCS 517-732-6526
ASCS 517-732-7110
CES 517-732-6484

OTTAWA

SCS 616-842-5869
ASCS 616-842-5852
CES 616-846-8250

PRESQUE ISLE

SCS 517-734-4000
ASCS 517-733-8323
CES 517-734-2168

ROSCOMMON

SCS 517-732-6526
ASCS 517-275-5231
CES 517-275-5043

ST. CLAIR

SCS 313-984-3866
ASCS 313-984-3865
CES 313-985-7169

ST. JOSEPH

SCS 616-467-6088
ASCS 616-467-6336
CES 616-467-6361

SAGINAW

SCS 517-781-4070
ASCS 517-781-1720
CES 517-790-5291

SANILAC

SCS 313-648-2116
ASCS 313-648-2998
CES 313-648-2515

SCHOOLCRAFT

SCS 906-341-5853
ASCS 906-477-6461
CES 906-341-5050

SHIAWASSEE

SCS 517-723-8264
ASCS 517-723-8263
CES 517-743-2251

TUSCOLA

SCS 517-673-8174
ASCS 517-673-8173
CES 517-673-5999

VAN BUREN

SCS 616-657-4220
ASCS 616-657-4095
CES 616-657-5564

WASHTENAW

SCS 313-761-6722
ASCS 313-662-3900
CES 313-973-9510

WAYNE

SCS 313-761-6722
ASCS 313-662-3900
CES 313-721-6550

WEXFORD

SCS 616-775-7422
ASCS 616-775-7681
CES 616-779-9480

IF YOU WANT TO KNOW MORE:
SELECTED REFERENCES

General

Batie, Sandra S. Soil Erosion: Crisis in America's Croplands?, The Conservation Foundation, Washington D.C., 1983.

USDA America's Soil and Water: Conditions and Trends, SCS, Washington D.C., Dec. 1980.

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Webb, Shwu-Eng H., Clayton W. Ogg, and Wen-Yuang Huang Idling Erodeable Cropland: Impacts on Production, Prices, & Government Costs, USDA, ERS, Agricultural Economics Report No. 550, Washington D.C., April 1986.

Policy

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Crosson, Pierre "Soil Conservation," Choices, Premiere Issue, 1986.

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Appendix

INSTRUCTIONS FOR COMPLETING MINIMUM BID CALCULATIONS 1

1. Include all initial costs for establishing a permanent vegetative practice including variable costs for land preparation and seeding, seed, chemicals, hired labor, fencing, etc. Multiply the subtotal by .15 to convert to an annual cost over the 10 year period, including depreciation and interest. (The factor .15 implies a discount to present value.)

2. Estimate annual costs for clipping, pest control, or other maintenance practices on Conservation Reserve Program acres.

3. Estimate the gross returns given up by removing reserve acres from production. The projected price should include the value of any other government payments which would have been received. Multiply the gross value per acre for each crop, by the percent of the reserve acres which would have been planted to that crop, and add to find weighted average gross value (percents must add to 100).

Cash-rent landlords can simply enter the amount of cash rent to be given up.

4. Find the total of lines 1, 2, and 3.

5. Estimate the cost savings from removing reserve acres from production. Do not include costs which would continue, regardless of whether the land is placed in the reserve or not, such as land payments. Multiply by the percent of acres in each crop and add to find the weighted average.

Cash-rent landlords would generally not have these costs.

6. Estimate any other cost savings which might result. For example, reserve acres which qualify as a forest reserve receive a property tax reduction. Also, enter any added income which could be derived from the reserve acres, such as sale of hunting rights.

7. Subtract lines 5 and 6 from line 4 to find the minimum bid needed to offset the net loss of income from removing the Reserve acres from production.

¹ The work sheet and instructions are adapted from "Agricultural Policy Update," No. 22, Cooperative Extension Service, Iowa State University, Ames, IA, January 30, 1986.

Minimum Bid Calculation for Conservation Reserve Program²

				<u>\$/acre/yr.</u>
1. Establishment costs:	machinery fuel, repairs,			
	custom hire	\$	_____ /a.	
	seed, seedlings		_____	
	weed control		_____	
	fertilizer, lime		_____	
	fencing, etc.		_____	
	Subtotal	\$	_____	
	minus cost share \$ available	-	_____	
	net cost of establishment per year	=	_____ x .15 =	\$ _____
2. Annual maintenance costs for conservation acres:	clipping		_____	
	pest control		_____	
	fertility		_____	
	Subtotal			\$ _____
3. Gross value of crop production (or cash rent) given up:				
		<u>Corn</u>	<u>Soybeans</u>	<u>Other</u>
	yield	_____	_____	_____
	x price	_____	_____	_____
	x % of acres	_____ %	_____ %	_____ %
	= gross value	_____ +	_____ +	_____ = \$ _____
4. Total of all costs (lines 1 + 2 + 3)				\$ _____
5. Cost savings from acres not planted:		<u>Corn</u>	<u>Soybeans</u>	<u>Other</u>
	seed	_____	_____	_____
	fertilizer	_____	_____	_____
	pesticides	_____	_____	_____
	crop insurance, miscellaneous	_____	_____	_____
	machinery fuel, repairs, custom hire	_____	_____	_____
	hired labor	_____	_____	_____
	Subtotal	_____	_____	_____
	x % of acres	_____ %	_____ %	_____ %
	= cost savings	_____ +	_____ +	_____ = \$ _____
6. Other cost savings (such as real estate tax reduction for forest reserve), or other added income from CRP acres				\$ _____
7. Net cost, or minimum bid to break even (line 4 - line 5 - line 6)				\$ _____

²A more detailed guide to determine bid calculations is available, with software, from Gerald Schwab, 25 Agriculture Hall, Department of Agricultural Economics, MSU, East Lansing, MI 48823.

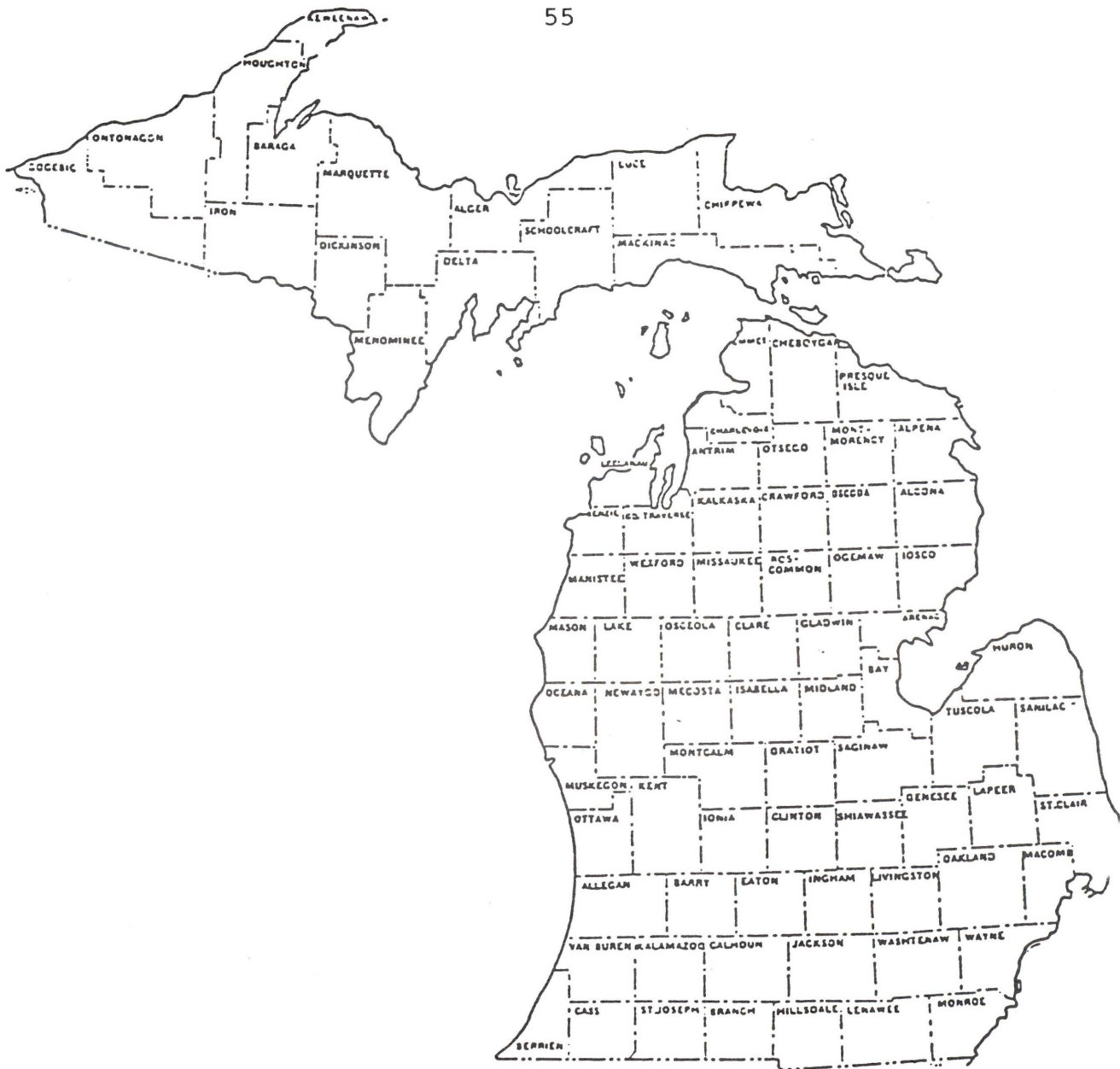


Figure A1. Michigan county map.