

# **EROSION AND SEDIMENT CONTROL PROGRAM**

## **RULES AND REGULATIONS**

**Adopted by the:**

**Tri-Basin Natural Resources District**

**June 16, 1987**

**Effective Date: July 1, 1987**

TRI-BASIN  
NATURAL RESOURCES DISTRICT  
Rules and Regulations  
Implementing the  
Erosion and Sediment Control Act

1. Authority: These rules and regulations are adopted pursuant to the authority granted in Section 2-4607 N.R.S. Supp. 1986.
2. Purpose: The purpose of these rules and regulations is to implement the Erosion and Sediment Control Act, Sections 2-4601 *et. Seq.* N.R.S. Supp. 1986 to provide for the conservation and preservation of the land, water and other resources of the district, and to thereby:
  - a) Substantially reduce the sediment and erosion damage within the district,
  - b) Safeguard the health, safety and welfare of the district's citizens,
  - c) Preserve the value of land and its productive capability for present and future generations,
  - d) Reduce the danger of flooding.
3. Applicability: These rules and regulations apply to all lands within the district except to the extent these lands lie within the respective jurisdiction of a county or municipality which has adopted and is implementing erosion and sediment control regulations in substantial conformance with the state erosion and sediment control program. Lands on which some non-agricultural land-distributing activities are occurring are also excluded. The excluded activities are identified in Rule 4, (f), sub-sections (2), (3) and (4).
4. Definitions:
  - a) Alleged violator means the owner of record and the operator, if any, of land which is the subject of a complaint filed in accordance with Rule 8.
  - b) Board means the Board of Directors of the Tri-Basin Natural Resources District.
  - c) Conservation Agreement means an agreement between the owner or operator of a farm unit and the district in which he or she agrees to implement all of a portion of a farm unit conservation plan. The agreement shall include a schedule for implementation and may be conditioned on the furnishing by the district or other public entity of technical, planning or financial assistance in the establishment of the soil and water conservation practices necessary to implement the plan.
  - d) District means the Tri-Basin Natural Resources District.
  - e) Farm Unit Conservation Plan means a plan jointly developed by the owner and, if appropriate, the operator of a farm unit and the district based upon the determined conservation needs for the farm unit and identifying the practices which may be expected to prevent soil loss by erosion from that farm unit in excess of the applicable soil loss limit. The plan may also, if practicable, identify alternative practices by which such objective may be attained.

- f) Non-agricultural land disturbing activity means a land change including, but not limited to, tilling, clearing, grading, excavating, transporting, or filling land which may result in soil erosion from wind or water and the movement of sediment and sediment-related pollutants into the waters of the state or onto lands in the state, but shall not include:
- 1) Activities related directly to the production of agricultural, horticultural or silvicultural crops, including, but not limited to, tilling, planting, or harvesting of such crops;
  - 2) Installation of aboveground public utility lines and connections, fenceposts, sign posts, telephone poles, electric poles, and other kinds of posts or poles;
  - 3) Emergency work to protect life or property; and
  - 4) Activities related to the construction of housing, industrial, and commercial developments.
- g) Sediment damage means the economic or physical damage to the land or other property of one person resulting from the deposition of sediment by water or wind of soil eroded from the lands of another person. Soil erosion is adversely affecting water quality if the beneficial uses of that water are impaired because of sediment or chemical deposition in the stream of lake involved. Physical effects to land or property which are relatively short term in nature and which cause no economic damage and no lasting physical damage shall not constitute sediment damage for the purposes of these rules and regulations.
- h) T value means the average annual tons per acre soil loss a given soil may experience and still maintain its productivity over an extended period of time.
5. Soil Loss Limits: Soil loss limits for the various types of soils in the district are adopted by the board as set out below. The permitted soil loss for particular lands may not exceed the T Value noted, except as provided in Rule 12. Each soil series listed below may contain one or more soil-mapping units referred to in Rule 10.

<u>Soil Series</u>	<u>T Value</u>	<u>Gosper</u>	<u>Phelps</u>	<u>Kearney</u>
Alda	4			X
Anselmo	5	X	X	
Boel	5			X
Butler	4		X	X
Cass	5		X	
Coly	5	X	X	X
Cozad	5	X	X	
Crete	4		X	
Detroit	5		X	X
Els	5			X
Fillmore	4	X		X
Gibbon	5			X
Gosper	5	X		
Gothenburg	2	X		X
Grigston	5		X	
Hall	5	X		
Hersh	5			X
Hobbs	5	X	X	X

<u>Soil Loss</u>	<u>T Value</u>	<u>Gosper</u>	<u>Phelps</u>	<u>Kearney</u>
Holdrege	5	X	X	X
Hord	5	X	X	X
Inavale	5			X
Kenesaw	5		X	X
Leshara	5		X	
Lex	4	X		X
Libory	5			X
Massie	3			X
Meadin	2		X	
O'Neill	4		X	
Platte	2	X	X	X
Rusco	5		X	X
Scott	3	X	X	X
Simeon	5			X
Thurman	5		X	
Tryon	5			X
Uly	5	X		X
Valentine	5		X	X
Wann	5		X	X

6. Administration:

- a) The board delegates the responsibilities for administering these rules and regulations to the district manager except to the extent board action is specifically required by these rules and regulations or by law. The following duties shall be performed by or under the direction of the district manager:
  - 1) Keep an accurate record of all complaints received, investigations made, and other official actions.
  - 2) Investigate all complaints made in writing to the district office relating to the applications of these rules and regulations and report in writing all alleged violations to the board.
  - 3) Monitor compliance with all farm unit conservation plans approved and orders issued by the board.
  
- b) In addition, the district manager and such staff as he or she shall designate shall have the following powers and responsibilities:
  - 1) At any reasonable time, after notice to the owner and operator, to enter upon any public or private lands within the area affected by these rules and regulations to investigate complaints and to make inspections to determine compliance. The owner, operator, and any other necessary technical personnel and representatives of the district may accompany the inspector.
  - 2) Upon reasonable cause or question, to report to the board any violations of any administrative order issued by the board pursuant to Section 2-4608 N.R.S Supp. 1986, and these rules and regulations.

- 3) At the direction of the board, and in accordance with Rule 19, to commence any legal proceedings necessary to enforce these rules and regulations and any order issued pursuant to them.

7. Violation: A violation of these rules and regulations exists if:

- a) Sediment damage is occurring,
- b) Average annual soil losses on the land which is the source of that damage are exceeding the soil loss limits adopted in Rule 5,
- c) The activity causing the soil loss is not an exempted non-agricultural land disturbing activity, Rule 4, f (2) through (4), and
- d) The land which is the source of the damage is not in strict compliance with a conservation agreement approved by the district.

8. Complaint: A complaint alleging that excessive soil erosion is occurring may be filed in the district office by

- a) Any owner or operator of land damaged by sediment,
- b) Any authorized representative of a state agency or political subdivision whose roads or other public facilities are being damaged by sediment,
- c) Any authorized representative of a state agency or political subdivision with responsibility for water quality maintenance if it is alleged that the soil erosion complained of is adversely affecting water quality, or
- d) Any district staff member, or other person authorized by the board to file complaints.

Complaints shall be made in writing on a form provided by the Director of Natural Resources.

9. Investigation of complaint: Upon receipt of a properly filed complaint, a representative of the district shall notify the alleged violator within ten days that a complaint has been filed and that an investigation to determine whether a violation of these rules and regulations has occurred will be initiated. The investigation shall take place as soon as possible after the complaint has been filed and notice given. The alleged violator shall be given an opportunity to accompany the person conducting the investigation. If a farm unit conservation plan previously approved by the district is being implemented and maintained in strict conformance with a conservation agreement including the land subject to the complaint, the complaint shall be dismissed. The alleged complainant and Board shall be notified.

Upon completion of the investigation, the investigator shall file a report of his or her findings with the committee established in accordance with Rule 11 and shall provide copies to the alleged violator and the complainant. The report shall include:

- a) The location and estimated acreage involved in the alleged violation,
- b) The investigator's conclusions concerning the existence of any sediment damage and a description of the location and nature of any sediment damage identified, and

- c) The location of land(s) which the investigator concludes are the source of the sediment, the nature of the land use on such lands, and the estimated average annual soil losses from such land(s).

The investigator may utilize the services of professional staff, consultants, or technicians of other state or federal agencies, if necessary.

10. **Determination of Soil Loss:** Soil losses shall be determined by using either the Universal Soil Loss Equation (USLE) to estimate the average annual water erosion (sheet and rill) or the Wind Erosion Equation (WEQ) to estimate the average annual wind erosion. Calculations will be based on guidelines contained in U.S. Dept. of Agriculture (USDA) Handbook 537 "Predicting Rainfall and Erosion Losses" (for USLE), Handbook 346 "Wind Erosion Forces in the United States and Their Use in Predicting Soil Losses" (for WEQ), and Nebraska Soil Conservation Service (NRCS) technical guides, as these publications may be modified or superseded.

When using the USLE, the soil losses normally will be calculated on a soil survey mapping unit basis. If it is determined that soil loss in excess of the applicable soil loss limits is occurring in the portion of one or more mapping units under the ownership and control of the alleged violator, they may not be averaged with other non-violating units for the purpose of determining overall soil loss. If it is determined that the sediment damage complained of is resulting from erosion on a land parcel smaller than the soil mapping unit, the USLE may be applied to such smaller portion only if such portion is three acres or greater.

The cover and crop management factor, "C", used in the USLE, may incorporate a cropping history of up to five years. Crop rotation patterns longer than five years but not more than ten years may be used for the purpose of planning future compliance with soil loss limits but exceedance of the limits may not be planned for more than two consecutive years.

Soil losses from irrigation, ephemeral-gully, and gully erosion may also be determined by using acceptable scientific procedures and may, if deemed appropriate by the board, be added to the soil losses determined by applying the USLE.

Soil losses from stream bank erosion shall not be calculated and these rules and regulations are not applicable to this type of erosion.

11. **Committee and Board Action:** The chairman of the board shall appoint a committee from among its members to assist the district staff in administering these rules and regulations and make a determination as to whether a probable violation of these rules and regulations has or has not occurred. Such determination shall be based upon the investigator's report completed pursuant to Rule 9 and an on-site inspection by the committee, if warranted. The committee shall report its findings to the board, the alleged violator and the complainant with a recommendation of further action as follows:
  - a) If the committee determines that a probable violation of these rules and regulations has occurred, it shall proceed in accordance with Rule 13.
  - b) If the committee determines that no violation of these rules and regulations has occurred, it shall recommend and the board may approve dismissal of the complaint. The complainant shall be given an opportunity to appear before the entire board before the board acts on the recommendation.
12. **Variance:** The committee may recommend and the board may approve a variance from the soil loss limit established in Rule 5 if it determines that a limit of T cannot reasonably be applied to

land which is the subject of a complaint. The soil loss permitted, however, may in no case exceed 2T. In making any such determination, the committee or the board shall consider the judgment of local professional soil conservationists and the economic consequences and feasibility of requiring conservation measures necessary to reduce soil losses to the T value.

13. Notice of Violation: If the committee determines that a probable violation of these rules and regulations has occurred, the alleged violator shall be informed of its findings by letter delivered in person or sent by registered or certified mail. The letter shall specify the options available to the alleged violator, including:

- a) The alleged violator shall be given an opportunity to contact the district within 10 days after receipt of notice concerning the development of a plan and schedule for eliminating excessive erosion and sedimentation from the land that generated the complaint. If appropriate at this time, possible practices for inclusion in a plan may be suggested. Information on cost-share programs and a statement indicating whether cost-share money is available may also be supplied.
- b) The alleged violator shall be given an opportunity to contest the Committee's findings at a board meeting or, if desired, board hearing to be held no sooner than 15 days after receipt of notice. Notice of the date shall be given. The alleged violator may request a formal public hearing within 10 days after receipt of notice. The district's rules for formal adjudicatory hearings shall govern the conduct of all such hearings.

The alleged violator shall be further notified that if he or she does not respond to this notice and does not appear at the board meeting for which notice was given, the board shall proceed in accordance with Rule 16 in his or her absence to make a final determination on the complaint and issue an administrative order if the board concludes that a violation has occurred.

14. Development and Approval of Plan for Compliance:

- a) If the alleged violator contacts the district pursuant to Rule 13 (a) and indicates a desire to attempt to jointly develop either a farm unit conservation plan or a plan for eliminating excessive erosion and sedimentation from the land that generated the complaint, board action on the complaint shall be delayed until further action is taken by the committee pursuant to (b) or (d) of this Rule. The district manager and the alleged violator shall promptly secure the assistance of the Soil Conservation Service or such other professional resource planners as are deemed necessary to aid in preparation of such a plan and shall attempt to prepare a mutually acceptable plan in accordance with NRCS technical guides. Any plan developed in accordance with this section shall identify, as applicable, the soil and water conservation practice(s) or erosion and sediment control practice(s) to be applied or utilized and shall be accompanied by a proposed conservation.
- b) Any plan developed by the alleged violator and the district manager shall be presented to the committee formed in accordance with Rule 11. If the committee agrees to the proposed plan and to the accompanying conservation agreement, the board may thereafter approve such plan and agreement. The complainant shall be notified of such action. In considering the schedule for compliance contained within the conservation agreement, the board may approve a longer time for compliance than would be permissible if an order were issued pursuant to Rule 16, but shall not do so without consideration of the nature and extent of any additional sediment damages the complainant is likely to suffer until the plan has been fully implemented.

- c) Strict conformance with a plan and agreement approved pursuant to this Rule shall be deemed compliant with these rules and regulations for the lands, which are subject to the agreement.
- d) If no mutually acceptable plan and conservation agreement have been prepared by the alleged violator and the district manager within an acceptable time period or if the committee concludes at any time that progress is not being made and is no longer likely on the preparation of such a plan, the complaint shall be again referred to the board and the alleged violator shall be so notified in person or by registered or certified mail and shall be given the information and option described in Rule 13(b). For purposes of this rule, acceptable time period shall mean (1) 90 days for alleged violations involving agricultural, horticultural, or silvicultural activities, and (2) 15 days for alleged violations involving non-agricultural land distributing activities.

15. Practices: Practices designed to reduce or control soil erosion or sediment damage may be approved in developing a plan under Rule 14 and may be required by the district in an administrative order issued pursuant to Rule 16.

- a) Soil and water conservation practices, applicable only to land used for agricultural, horticultural, or silvicultural purposes, may include:
  - 1) Permanent practices, such as the planting of perennial grasses, legumes, shrubs, or trees, the establishment of grassed waterways, the construction of terraces, grade control structures, tile outlets, and other practices approved by the district;
  - 2) Temporary soil and water conservation practices, such as the planting of annual or biennial crops, use of strip cropping, contour planting, conservation tillage or residue management system, and other cultural practices approved by the district.

The district shall maintain a complete list of approved permanent and temporary soil and water conservation practices as part of its local erosion and sediment control program.

- b) Erosion and sediment control practices, which are applicable to activities other than agricultural, horticultural, or silvicultural activities, may include:
  - 1) The construction or installation and maintenance of permanent structures or devices necessary to carry to a suitable outlet away from any building site, any commercial or industrial development or service facility not served by a central storm sewer system, any water which would otherwise cause erosion in excess of the applicable soil loss limit and which does not carry or constitute sewage or industrial or other waste to a suitable outlet away from any development facility not served by a central storm sewer system.
  - 2) The use of temporary devices or structures, temporary seeding, fiber mats, plastic straw, diversions, silt fences, sediment traps or other measures adequate either to prevent erosion in excess of the applicable soil loss limit or to prevent excessive downstream sedimentation from land which is the site of or is directly affected by any non-agricultural land-disturbing activity; or
  - 3) The establishment and maintenance of vegetation upon the right-of-way of any completed portion of any public street, road, highway or the construction or

installation thereon of permanent structures or devices or other measures adequate to prevent erosion on the right-of-way in excess of the applicable soil loss limit.

The district shall maintain a complete list of approved erosion and sediment control practices as part of its local erosion and sediment control program.

16. Order: If after board consideration of the complaint at a meeting or hearing for which the alleged violator has been given notice in accordance with Rule 13 the board finds that sediment damage has occurred, that average annual erosion on the land which is the source of that damage is occurring in excess of the applicable soil loss limits(s), and that a conservation plan has not been developed or is not being implemented according to a conservation agreement, it shall issue an administrative order to the violator stating:
- a) The date of the order,
  - b) The identity of the source of the violation and its location
  - c) The authority of the board to issue such order,
  - d) The specific findings, including 1) the estimated average annual soil loss and the extent to which erosion exceeds the applicable soil loss limit and, 2) the nature of the sediment damage or water quality impairment resulting from such excessive erosion.
  - e) If desired by the board, the alternative soil and water conservation practices or erosion and sediment control practices required to bring the land into conformance with these rules and regulations.
    - 1) When the erosion complaint is the result of agricultural, horticultural or silvicultural activities, the soil and water conservation practices required shall be those necessary to bring the land into conformance with the applicable soil loss limit. If the board knows that cost-share funds are or may not be available for necessary permanent soil and water conservation practices and desires utilization of temporary soil and water conservation practices in the interim until cost-sharing is made available it shall also specify such temporary practices in the order.
    - 2) Where the erosion complained of is the result of a non-agricultural land-disturbing activity, the board may authorize the violator to either bring the land into conformance with applicable soil loss limits or to prevent sediment resulting from excessive erosion from leaving the land.
  - f) Any requirements concerning the operation, utilization, or maintenance of the alternative practices identified.
  - g) The deadlines for commencing and completing work necessary to comply with this order.
    - 1) The time for initiating work needed to establish the necessary soil and water conservation practices or permanent erosion and sediment control practices shall not exceed six months after service or mailing of the order and shall be completed not later than one year after service or mailing of the order unless an extension has been granted upon a showing of good cause. If cost-share assistance for permanent soil and water conservation practices is not available when the order

is issued, the time for initiating these practices shall be delayed until the district notifies the violator that cost-share assistance is available.

- 2) The time for initiating work to establish necessary temporary erosion and sediment control practices for non-agricultural land disturbing activities shall be not less than 5 days nor more than 15 days after service or mailing of the order and shall be completed not longer than 45 days after service or mailing unless an extension has been granted upon a showing of good cause.
- h) The action to be taken by the board if the violator does not comply.

A copy of the dismissal or administrative order shall be delivered to the owner and operator of the land in question by personal service or certified or registered mail.

17. Cost-Share Assistance:

- a) If there is not available to any owner or operator at least 90 % cost-sharing assistance for the installation of permanent soil and water conservation practices which are required in an approved farm unit conservation plan or are required by order of the board to conform agricultural, horticultural, and silvicultural practices to the applicable soil-loss limit any such owner or operator shall not be required to install such practices pursuant to the Erosion and Sediment Control Act until such cost-sharing assistance is made available. The owner or operator may be required to utilize temporary soil and water conservation practices in the interim to minimize soil erosion and sediment damage. Cost-share assistance is not a condition on requiring erosion and sediment control practices for non-agricultural land-disturbing activities.
- b) Priority for cost-share assistance shall be based on the date the administrative order executed pursuant to these regulations was signed. As cost-share assistance becomes available, the earlier date shall receive assistance first.

18. Supplemental Orders: The board may issue supplemental orders as necessary to extend the time of compliance with an administrative order if, in its judgment, the failure to commence or complete the work as required by the administrative order is due to factors beyond the control of the person to whom the order is directed and the person can be relied upon to commence and complete the necessary work at the earliest possible time.

19. Non-Compliance:

- a) Subject to any limitations imposed by the board, the district manager may commence legal proceedings by filing a petition in the district court in which a majority of the land is located requesting a court order requiring immediate compliance with the administrative order or any supplemental order issued previously, if he or she has reasonable cause to believe after inspection that an administrative order issued previously by the board is not being complied with because
  - 1) The work necessary to comply with the order does not commence on or before the date specified in the order or in any supplemental orders,
  - 2) The work is not being performed with due diligence, is not satisfactorily completed by the date specified in the order, or is not being operated, utilized, or maintained in accordance with requirements set forth in the order,

- 3) The work is not of a type or quality specified by the district, and when completed, it will not or does not reduce soil loss to within the applicable soil loss limit for the identified land, or in the case of non-agricultural land-disturbing activity, will not or does not prevent sediment resulting from excessive erosion from leaving the land involved; or
- 4) The person to whom the order is directed informs the district that he or she does not intend to comply.

**PART II**

**PRACTICES**

**FOR**

**EROSION AND SEDIMENT CONTROL**

## **RECOMMENDED PRACTICES FOR CONTROLLING EROSION AND SEDIMENTATION**

The following lists of practices are grouped into three general categories: permanent agricultural, temporary agricultural, and non-agricultural. The lists are not mutually exclusive; some practices are on more than one list. All practices on the list are deemed to be suitable, under the proper circumstances, for controlling erosion and sedimentation within the district. Many are potential components of resources management systems for lands in the district. Actual application depends on the particular circumstances and needs being addressed. NSCS has plans, specifications, or technical guides for most of these practices.

### Permanent Soil and Water Conservation Practices For Controlling Erosion and Sedimentation on Agricultural Land

Permanent soil and water conservation practices are activities which often are part of an on-going (longer than one year) resources management system. Many of these practices require some construction or installation, which usually involves a capital investment. For that reason, permanent practices may be recommended and adopted as part of a conservation plan but cannot be required under the Erosion and Sediment Control Act unless cost-sharing funds are made available. For those practices found on both this and the "Temporary Soil and Water Conservation Practices" lists, the district will determine on a case-by-case basis whether the practice is required as a permanent or temporary measure.

- Benches and Berms
- Conversion to Perennial Grasses
- Critical Area Planting
- Dams
- Diversion
- Dikes
- Farmstead and Feedlot Windbreaks
- Fencing
- Field Borders
- Field Windbreaks
- Grade Stabilization Structures
- Grassed Waterways or Outlets
- Heavy Use Area Protection
- Pasture and Hay land Planting
- Planned Grazing Systems
- Planned Irrigations Systems
- Range Seeding
- Sediment Retention Basins
- Terraces
- Tree Plantings
- Underground Outlets
- Vegetative Wind Barriers
- Water and Sediment Control Structures
- Windbreak Renovation

Temporary Soil and Water Conservation Practices  
For Controlling Erosion and Sedimentation on Agricultural Land

Temporary soil and water conservation practices range from one-time only actions to activities which could continue for a number of years. Those on-going activities generally involve management decisions where a practice may be maintained, modified, or eliminated on an annual basis, rather than practices involving more permanent construction or installation activities. These practices generally require no or lower capital investments and the availability of cost-share funds is not required.

- Brush Management
- Conservation Cropping Systems
- Conservation Tillage Systems
- Contour Farming
- Conversion to Annual Grasses
- Cover and Green Manure Crop
- Crop Residue Use
- Deferred Grazing
- Emergency Tillage
- Erosion Checks
- Fencing
- Filter Strips
- Grazing Land Mechanical Treatment
- Irrigation Water Management
- Livestock Exclusion
- Mulching
- Pasture and Hay land Management
- Rangeland Management (Proper Grazing Use)
- Strip cropping

Erosion and Sediment Control Practices for Controlling  
Erosion and Sedimentation on Land Not Used for Agriculture,  
Horticulture or Silviculture Purposes

There are many land disturbing activities, which are not related to agriculture, horticulture or silviculture. Erosion and sedimentation as a result of these activities can be a significant problem. The following practices may be required to treat erosion and sedimentation on these lands under the Erosion and Sediment Control Act, but cost-sharing funds need not be made available.

- Benches and Berms
- Channel Vegetation
- Check Dams
- Chutes/Flumes
- Contour Development (Urban and Construction Sites)
- Cover Crops
- Critical Area Planting
- Dams
- Dikes
- Diversions
- Erosion Checks
- Fencing
- Filter Strips
- Flexible Downdrains
- Gabions
- Grade Stabilization Structures
- Grassed Waterways and Outlets
- Heavy Use Area Protection
- Lining of Waterways or Outlets
- Mulching
- Netting
- Parking Lot Ponding
- Porous Paving
- Reclamation of surface Mined Land
- Recreation Area Improvements (Seeding, etc.)
- Roadside Seeding
- Rooftop Ponding
- Sandbag Sediment Barriers
- Sectional Downdrains
- Sediment Retention Basins
- Storm Sewers
- Straw Bale Sediment Barriers
- Stream Channel Stabilization
- Streambank Protection
- Street Cleaning
- Subsurface Drains
- Terraces
- Tree Plantings
- Underground Outlets
- Vegetative Wind Barriers
- Water and Sediment Control Structures
- Windbreak Plantings
- Windbreak Renovation

## **PART III**

### **POLICY AND PROGRAMS**

## EXISTING EROSION PROBLEMS

The Tri-Basin Natural Resources District does not have the erosion problems of other Natural Resources Districts in the state. The 1982 Nebraska Resources Inventory (NRI) compiled by the Soil Conservation Service, USDA. Indicates that 556,600 acres of the 655,100 acres of total cropland in the NRD is considered prime farmland and that the estimated average annual erosion on all 1982 cropland was 3.1 tons per acre. Also, the Nebraska Natural Resources Commission, in their redistribution of Nebraska Soil and Water Conservation Program funds in July 1985, determined the total needs of Tri-Basin to be the smallest of any NRD in the state. Only 1.291 per cent of the money allocated to the NRD's based on total needs was awarded this district.

The fact that this NRD has less erosion than any other does not mean that there are no erosion problems, however. Again, the 1982 NRI indicates that Class 4E and 6E cultivated cropland, both irrigated and non-irrigated, are eroding at 8.2 and 14.3 tons per acre respectively. There are approximately 60,000 acres of these two soil classes in the NRD. They are found primarily in the Valentine Association Soils of the sandhills region of northern Phelps and Kearney counties and in the Holdrege-Uly-Coly Association Soils of southern Gosper and southwest Phelps counties. Approximately one-half of the 60,000 acres is land developed for center pivot irrigation in the last 15 years.

These two soil classes account for nearly all of the erosion in the NRD and should be included in the Highly Erodible Lands (HEL) as defined in the 1985 Federal Food Security Act (FSA). Therefore, erosion on most of these lands will be reduced to T or below by 1995.

## GOALS AND OBJECTIVES

The Tri-Basin NRD Master Plan, adopted in August 1979, stated the following Goal and Objectives for Soil Conservation and Erosion Control:

Goal: Each acre of land within the NRD will be managed in such a way as to reduce erosion to a level below soil loss tolerances as defined by the Soil Conservation Service (SCS) so that it will maintain its present quality or be improved.

Objectives:

- a) The Tri-Basin NRD will continue support of the SCS in its service in the soil conservation field.
- b) The NRD will provide a field office in Kearney County and Gosper County for the Soil Conservation Service with the rental rate just sufficient to cover building upkeep and debt retirement.
- c) The Tri-Basin NRD will provide each SCS office in the NRD with a regular part-time clerk to assist them in their duties. These clerks will devote approximately 80% of their time to SCS related activities and 20% to NRD related activities. Their hours will vary with each office but will be scheduled to keep the field offices open at all times.
- d) The NRD will give technical assistance to the SCS by providing regular part-time technicians to help in the field offices as needed.

- e) The NRD will support the educational program of the Nebraska Association of Resources Districts in their promotion of conservation. This will include sponsoring land judging and range judging contest when called upon.
- f) The NRD will also sponsor education programs of its own to promote conservation of soil and water in the area schools.

This goal can be easily adapted to the “new” erosion and sediment control program.

New Goal: Each acre of land within the NRD will be managed in such a way as to reduce erosion to T or below as defined in the State Erosion and Sediment Control Program by the year 2025.

The objectives will change very little except for the hours the clerks may work to help out with the present workload under the 1985 Food Security Act.

### CURRENT NRD ACTIVITIES

The following programs have been carried on to promote sediment and erosion control (soil conservation) from the first formation of the NRD and will be contained for the next five years and beyond. Costs are for 1986-87 and will vary some from year to year, depending on the use of the program. Manpower requirements should not change significantly except for assistance to the Soil Conservation Service.

### SCS SUPPORT PROGRAMS AND COST

The District presently has three clerks providing 96 hours of assistance per week to the Soil Conservation Service in its three field offices across the district. These clerks are there to conduct NRD business and to assist SCS personnel, primarily so they can spend more time in the field or in planning. The NRD also hires some technical help for the SCS to assist with fieldwork when needed. Cost to the NRD in Fiscal year 1986-87 was \$23,710 for SCS clerks and \$1,442 for technical help.

Tentative plans are to increase the clerical and technical assistance to help the SCS meet their requirements under the FSA. SCS clerks will move to full-time. Technical help will be provided to the SCS by the water resource technicians presently working on chemigation and water quality after that work is completed in the fall. 1248 additional hours of clerical and 800 hours of technical assistance will be provided in fiscal year 1987-88. Cost: \$30,780 for clerks and \$4,800 for technicians. It is anticipated that this will last thru 1990.

The NRD owns the field offices in Elwood and Minden and leases them to the SCS at a reasonable rate to cover operating expenses and repairs. Cost: \$1,000.

### INFORMATION AND EDUCATION COST - \$3,500

The district participates or sponsors the following education and information programs:

#### Soil Stewardship

NACD materials are sent free of charge to all churches throughout the district who want to participate. This is an ongoing program which will be continued. Cost: \$206. Personnel time – 12 hours.

### Land and Range Judging

This district sponsors range and soil judging contests whenever requested and will continue to do so. A range judging contest in 1986 cost the NRD \$344, plus personnel time of 50 hours. Another one is scheduled for the Fall of 1987.

### Honor Award Programs

An Honor Farm Family is chosen each year and awarded a large aerial photo of their farm. Also soil steward pins were awarded to 74 people, and it is anticipated more will be awarded in the future if the state continues the program. Cost: \$100.

### School Programs

Each spring an Eighth Grade Conservation Field Trip is sponsored for all the schools in the district. It involves from 250-300 children. SCS and Extension personnel assist with this program. Also, conservation comic books and teachers guides from the Soil Conservation Society of America are distributed to all fourth graders in the district each year. Cost: \$500, plus personnel time of 60 hours.

Educational Service Unit #11 has developed an educational unit on Arbor Day for schools in their area. This NRD provides trees for this unit at no cost to the schools. Cost: \$400, plus personnel time of 20 hours.

### Scholarships

Each year the NRD offers three scholarships to FFA and 4-H youth throughout the district to attend the annual Range Camp at Halsey. Money is also available for teachers in the NRD to assist in conservation education during the summer. An attempt is made each year to involve Eighth Grade Science Teachers with Camp Jefferson, but so far no one has been able to attend because of conflicts in their schedule. Cost: \$500.

### Conservation News Articles

Each month the NRD sponsors a full page spread in four newspapers in the district on some item of interest in the field of conservation. This allows other agencies such as SCS, CES, ASCS and Weed District, as well as the NRD to promote their conservation programs throughout the district. Cost: \$1,200, plus personnel time of 24 hours.

### Grass Seeding and Tree Planting

Each year the NRD distributes and plants from 20,000 to 40,000 trees. The cost of trees and planting is covered by the fee set each year so the program is self-supporting. Part-time employees are hired to assist with this seasonal program. The district owns a tree planter and leases a tractor. Total personnel time: 590 hours.

The NRD now owns six grass drills for rental to district residents. Five nine-foot drills have been used in the past, but with the Conservation Reserve Program, and large acreages to be seeded, a larger drill was needed. A 15-foot grass drill has been purchased and it is anticipated it will be paid for by rentals within a year.

### Conservation Tillage

Conservation Tillage Workshops have been held in the area and Natural Resources District has co-sponsored eco-fallow field trips with the Soil Conservation Service in the past.

Conservation tillage is being promoted throughout the NRD by the ASCS and SCS as a requirement for the FSA. In many cases it is the only conservation practice necessary to reduce soil erosion to T or below on Highly-Erodible Land. Eco-fallow is now a common practice for row drop production on dry land, especially in southern Gosper County.

## FUTURE NRD ACTIVITIES

It is anticipated that no new programs will be initiated by this NRD to implement the Erosion and Sediment Control Program, except the complaint system as required by the law. The NRD board feels that a cost-share program is not necessary to attain the goals and objectives of the state or local programs.

Under the 1985 Food Security Act, landowners who wish to be in the federal farm program must have and begin the installation of an acceptable conservation plan by January 1, 1990. The District will encourage those landowners who choose not to be in the federal farm program to also have a conservation plan prepared by the Soil Conservation Service and reviewed by the District.

The Federal program, with its requirements of conservation plans on all Highly Erodible Land by 1990 and any necessary management practices installed by 1995, along with the rules and regulations adopted in Part I of this program should take care of any soil erosion or sediment problems in this NRD. The district does not plan to aggressively pursue the development of signing of "conservation agreements" except when they are viewed by the district as a reasonable solution to a complaint.

In the event that the 1985 Food Security Act is repealed or changed so that the conservation provisions are eliminated before conservations plans are written on all Highly Erodible Land, the Tri-Basin NRD Erosion and Sediment Control Program will need to be altered accordingly.

Complete cooperation with the Soil Conservation Service and the Agricultural Stabilization and Conservation Service to implement the 1985 Food Security Act will be a new objective of the Tri-Basin NRD. Another will be to cooperate fully with the Nebraska Natural Resources Commission and other state agencies to carry out the requirements of the State Erosion and Sediment Control Program.

## CITY, VILLAGE OR COUNTY REGULATORY PROGRAMS

None of the cities (Holdrege and Minden), villages (Elwood, Smithfield, Bertrand, Loomis, Funk, Axtell, Wilcox, Heartwell and Norman) or counties (Gosper, Phelps, and Kearney) have any regulatory programs in substantial conformance with LB 474 and the state program that would therefore limit the Tri-Basin NRD's jurisdictional area or scope of regulations.

Since all of these cities and villages were built on fairly level plains, drainage is more of a problem than erosion to them. The counties have isolated problems with erosion on road building projects, but these can be taken care of with appropriate construction practices and grass seeding without regulatory actions on the part of the county or NRD.