

May 23, 2016

**LEWIS AND CLARK NATURAL RESOURCES DISTRICT**  
**EROSION AND SEDIMENT CONTROL PROGRAM**  
**RULES AND REGULATIONS**

**Adopted by the Board of Directors – (Date)**

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**LEWIS AND CLARK NATURAL RESOURCES DISTRICT  
RULES AND REGULATIONS FOR IMPLEMENTING  
EROSION AND SEDIMENT CONTROL ACT**

**1. AUTHORITY**

These rules and regulations are adopted pursuant to the authority granted in Section 2-4605, R.R.S. 1948, as amended.

**2. PURPOSE**

The purpose of these rules and regulations is to provide an orderly method for implementing the Erosion and Sediment Control Act, sections 2-4601 et. seq. R.R.S. 1943, as amended to provide for the conservation and preservation of the land, water and other resources of the District, and to thereby:

- (a) reduce damages caused from wind erosion,
- (b) reduce storm water runoff and the danger of flooding,
- (c) reduce sediment damage to lands within the District,
- (d) reduce non-point pollution from sedimentation and related pollutants
- (e) preserve the value of land and its productive capability for present and future generations, and
- (f) safeguard the health, safety and welfare of the District's citizens,

**3. APPLICABILITY**

These rules and regulations apply to all lands within the District except to those lands which 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. Some non-agricultural land-disturbing activities are also excluded and are identified in Rule 4, Section (h), sub-sections (2), (3), (4) and (5).

**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 Lewis and Clark Natural Resources District.
- (c) **Committee** means the Planning Committee of the Lewis and Clark Natural Resources District,
- (d) **Conservation agreement** means an agreement between the owner and operator, if any, of a farm unit and the District in which the owner and operator, if any, agrees to implement all or a portion of a farm unit conservation plan or erosion and sediment control plan. The agreement shall include a schedule for implementation and may be conditioned on the District or other public entity furnishing technical, planning or financial assistance in the establishment of the soil and water conservation or erosion and sediment control practices necessary to implement the plan or portion of the plan.

- (e) **District** means the Lewis and Clark Natural Resources District.
- (f) **Excess erosion** means the occurrence of erosion in excess of the applicable soil-loss tolerance level which causes or contributes to an accumulation of sediment upon the lands of any other person to the detriment or damage of such other person.
- (g) **Farm unit conservation plan** means a plan jointly developed by the owner and, if appropriate, the operator of a farm unit and the District. Such plan shall be based on the determined conservation needs of the farm unit and identification of practices which may be expected to prevent soil loss by erosion to the applicable soil-loss tolerance level. The plan may also, if practicable, identify alternative practices by which such objective may be attained.
- (h) **Erosion and Sediment Control Plan** means a plan, developed for a parcel of land used for non-agricultural purposes, which identifies the permanent or temporary practices which may be expected to either prevent sediment from leaving that parcel or prevent soil loss / erosion from that parcel in excess of the applicable soil-loss tolerance level.
- (i) **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, fence posts, 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 on sites under two acres in size; and
  - (5) Activities related to the operation, construction, or maintenance of industrial or commercial public power district or public power and irrigation district facilities or sites when such activity is conducted pursuant to state or federal law or is part of the operational plan for such facility or site.
- (j) **Sediment damage** means:
  - (1) the economic or physical damage to the land or other property of one person resulting from the deposition of sediment, by water or wind, or soil eroded from the lands of another person;
  - (2) the degradation of water quality and/or the reduced beneficial use of the water in the stream or lake involved resulting from soil sedimentation or the deposition of chemical laden sediments. For the purpose of this program, chemicals shall include, but is not limited to, any agricultural, municipal, or industrial chemicals or waste deposited on the soil.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 purpose of these rules and regulations.

**(k) Soil-loss tolerance level** means the maximum amount of soil loss due to erosion by wind or water, expressed in terms of tons per acre per year, which is determined to be acceptable in accordance with the Erosion and Sediment Control Act. Soil loss from water erosion may include:

- (1) sheet and rill erosion which includes relatively uniform soil loss across the entire field slope which may leave small channels located at regular intervals across the slope and
- (2) ephemeral gully erosion which occurs in well-defined depressions or natural drainageways where concentrated overland flow results in the convergence of rills forming deeper and wider channels.

**(l) T value** means the average annual tons per acre soil loss that a given soil may experience and still maintain its productivity over an extended period of time.

## **5. SOIL-LOSS TOLERANCE LEVEL**

USDA Soil Survey data provides values of soil loss tolerance (T) for various soil series across the District and are described as Soil-Loss Tolerance Levels in the NRCS TECHNICAL GUIDES. These soil-loss tolerance levels for the soils of the District have been adopted by the Board and are attached hereto as Appendix I. Each soil series listed may contain one or more soil mapping units-referred to in Rule 10. The permitted soil-loss tolerance levels for particular lands may not exceed the T value noted in Appendix A.

## **6. ADMINISTRATION**

**(a)** The Board delegates the responsibility 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 application of these rules and regulations and report in writing all alleged violations to the Board.

(3) Monitor compliance with all approved farm unit conservation plans, erosion and sediment control plans, and administrative orders issued by the Board.

**(b)** Except to the extent jurisdiction has been assumed by a municipality or county in accordance with section 2-4606, and after a written and signed complaint has been made, 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, if any, to enter upon any public or private lands within the area affected by these rules and regulations for the purpose of investigating complaints and to make inspections to determine compliance. The owner, operator, if any, and any other necessary technical personnel and representatives of the District may accompany the inspector.

(2) Upon reasonable cause, to report to the Board any violations of any administrative order issued by the Board pursuant to Section 2-4608, R.R.S. 1943, as amended, and these rules and regulations,

(3) At the direction of the Board, and in accordance with Rule 13 (e) and 18, 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 sediment are exceeding the soil-loss tolerance level adopted in rule 5;
- (c) the activity causing the soil loss is not an exempted non-agricultural land-disturbing activity (Rule 4(1) (2) to (5)); 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 soil erosion is occurring in excess of the soil loss tolerance level or that sediment damage 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 and signed on a form provided by the Director of Department of Natural Resources.

The flow chart for handling a complaint is found in Appendix C 9page 21)

## **9. INVESTIGATION OF COMPLAINT**

Upon receipt of a properly filed complaint, a representative of the District shall notify the alleged violator within ten (10) days that a complaint has been filed and that an investigation will be initiated to determine whether a violation of these rules and regulations has occurred. 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 or erosion and sediment control 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 violator, 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 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 the applicable portions of the then current version of the United States Department of Agriculture, Natural Resources Conservation Service Field Office Technical Guide to estimate the average annual sheet and rill erosion, ephemeral erosion or wind erosion.

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 tolerance level 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 from a land parcel smaller than the soil mapping unit, the soil loss equation in the Field Office Tech. Guide may be applied to such smaller portion only if such portion is two acres or greater.

The cover and crop management factor, "C", used in calculating erosion 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 tolerance levels but exceeding the limits may not be planned for more than two consecutive years. Soil losses from irrigation and gully erosion may also be determined by using acceptable scientific procedures and may, if deemed appropriate by the Board, be added to soil losses for sheet and rill, ephemeral and wind erosion. Soil losses from streambank erosion shall not be calculated and these rules and regulations are not applicable to this type of erosion. Application of the soil loss equation formulas will be made by someone whose qualifications to make such determinations can be supported in court.

#### **11. COMMITTEE AND BOARD ACTION ON COMPLAINT**

The committee shall assist the District staff in administering these rules and regulations and make determinations 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 may also request that both the alleged violator and the complainant appear before them to discuss the complaint. 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 staff and committee determine 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 the opportunity to appear before the entire Board before the Board acts on the recommendation.

- (b) If the committee determines that 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, it shall recommend and the Board may approve dismissal of the complaint.
- (c) If the committee determines that the land which is identified in the complaint is being used for non-agricultural purposes, and is under an erosion and sediment control plan that has been approved by the District, is in conformance with any NPDES (National Pollution Discharge Elimination System) permit issued by the Nebraska Department of Environmental Quality (NDEQ), or any political subdivision of the state designated by NDEQ to issue such permits, it shall recommend and the Board may approve dismissal of the complaint.
- (d) If the committee determines that a probable violation of these rules and regulations has occurred, it shall proceed in accordance with Rule 12.

## **12. 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 ten days after receipt of notice concerning the development of a plan and schedule for eliminating excess erosion and sedimentation from the land that generated the complaint. If appropriate at this time, alternative practices for inclusion in a plan may be suggested. Information on cost-share programs and an indication of 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 regularly scheduled Board meeting or, if desired, a Board hearing to be held no sooner than fifteen days after receipt of notice. Notice of the date shall be given. The alleged violator may request a formal public hearing within ten (10) days of receipt of notice. The District's rules for formal adjudicatory hearings shall govern the conduct of all such hearings.
- (c) The alleged violator shall be further notified that if he or she does not respond to the notice and does not appear at the Board meeting for which notice was given, the Board shall proceed in accordance with Rule 15 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.

## **13. DEVELOPMENT AND APPROVAL OF PLAN FOR COMPLIANCE**

- (a) If the alleged violator contacts the District pursuant to Rule 12 (a) and indicates a desire to jointly develop either a farm unit conservation plan or an erosion and sediment control plan for eliminating excess erosion or 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 Natural Resources Conservation Service (NRCS) or such other professional resource planners as are deemed necessary to



assist in preparation of such a plan and shall attempt to prepare a mutually acceptable

plan in accordance with the NRCS Field Office Technical Guide. 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 agreement setting forth a schedule for compliance.

- (b) Any plan developed by the alleged violator and the District manager shall be presented to the committee. 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 and shall be provided copies of the approved plan and conservation agreement. 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 15, 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 compliance 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 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 12(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 a non-agricultural land-disturbing activity.
- (e) Following refusal of a landowner to discontinuing an activity causing erosion which constitutes a violation in Rule 7, and to establish a plan and schedule for eliminating excess erosion pursuant to these rules, and if the immediate discontinuance of such activity is necessary to reduce or eliminate damage to neighboring property, the District may petition the District court for an order to the owner and, if appropriate, the operator, to immediately cease and desist such activity until excess erosion can be brought into conformance with the soil-loss tolerance level or sediment resulting from excess erosion is prevented from leaving the property.

#### **14. PRACTICES**

Practices designed to reduce or control soil erosion and/or sediment damage may be approved in developing a plan under Rule 13 and may be required by the District in an administrative order pursuant to Rule 15.

- (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. See Appendix B.

**(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 any publicly or privately owned recreational 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 tolerance level and which does not carry or constitute sewage or industrial or other waste to a suitable outlet away from any development or facility not served by a central storm sewer system;

(2) the use of temporary devices or structures, temporary seeding, mulching (including fiber mats, plastic, straw), diversions, silt fences, sediment traps or other measures adequate either to prevent erosion in excess of the applicable soil loss tolerable levels 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 tolerance level.

The District shall maintain a complete list of approved erosion and sediment control practices as part of its local erosion and sediment control program. See Appendix B.

## **15. ADMINISTRATIVE 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 12, the Board finds that sediment damage has occurred, that average annual erosion on the land which is the source of the damage is occurring in excess of the applicable soil-loss tolerance level(s), and that a conservation plan or erosion and sediment control plan has not been developed nor is 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 (i) the estimated average annual soil loss and the extent to which erosion exceeds the applicable soil-loss tolerance level and, (ii) 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. When the erosion 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 tolerance level. 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 tolerance level 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.
  - a. The time for initiating work needed to establish the necessary soil and water conservation practices shall not exceed six months after service or mailing of the order to the violator and shall be completed no later than one year after service or mailing of the order to the violator unless an extension has been granted upon a showing of good cause
  - b. A reasonable time for initiating work needed to establish erosion and sediment control practices for nonagricultural land-distributing activities shall not exceed five days after service or mailing of the order. Temporary practices shall be completed not longer than fifteen days after service or mailing of the order and permanent practices shall be completed no longer than forty-five (45) days after service or mailing of the order unless an extension has been granted upon a showing of good cause. An extension shall only be granted after review and affirmative action of the Board.
- (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 to the operator, if any, of the land in question by personal service or certified or registered mail.

## **16. COST-SHARE ASSISTANCE**

To prevent excess erosion and sediment from leaving the land due to any agricultural or nonagricultural land-disturbing activity, cost-share assistance may be available from the District. Such assistance, if available, may be used for any erosion or sediment control practice. The lack of available cost-sharing assistance does not offset the requirement that the owner and, if appropriate, the operator of such land comply with the terms of an approved plan of compliance or an administrative order.

## **17. 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 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.

## **18. NON-COMPLIANCE**

Subject to any limitations imposed by the Board, the District manager may cause the District to commence legal proceedings by filing a petition in the name of the District 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 is not commenced 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 quantity specified by the District, and when completed, it will not or does not reduce soil loss to within the applicable soil-loss tolerance level 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.

## **APPENDIX A**

### **Soil-Loss Tolerance Levels**

The following pages summarize the various soil types, soil loss limits and "T" factors of soils by county, for each of the counties which make up the Lewis and Clark Natural Resources District.

See Soil T-Factor Tables on accompanying pages.

## Soil Loss Tolerance Values (T-Factors) For Cedar County

Map Unit Symbol	Map Unit Name	Dominant Component	T-Factor
2320	Inavale coarse sand, channeled, frequently flooded	Inavale	5
2561	Eltree silt loam, 0 to 3 percent slopes	Eltree	5
2563	Eltree silt loam, 3 to 6 percent slopes	Eltree	5
2564	Eltree silt loam, 6 to 11 percent slopes	Eltree	5
3050	Nimbro silt loam, occasionally flooded	Nimbro	5
3152	Boyd silty clay, 6 to 11 percent slopes	Boyd	3
3153	Boyd silty clay, 11 to 15 percent slopes	Boyd	3
3221	Labu silty clay, 6 to 11 percent slopes	Labu	3
3518	Lamo silty clay loam, 0 to 2 percent slopes, occasionally flooded	Lamo	5
3553	Hobbs silt loam, 0 to 2 percent slopes, frequently flooded, cool	Hobbs	5
3561	Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool	Hobbs	5
3640	Kezan silt loam, frequently flooded	Kezan	5
3642	Kezan silt loam, occasionally flooded	Kezan	5
3755	Hord silt loam, 0 to 2 percent slopes, rarely flooded	Hord	5
3952	Fillmore silt loam, frequently ponded	Fillmore	4
5476	Betts clay loam, 15 to 30 percent slopes	Betts	5
5479	Betts clay loam, 6 to 15 percent slopes	Betts	5
6300	Aowa silt loam, occasionally flooded	Aowa	5
6301	Aowa silt loam, channeled, frequently flooded	Aowa	5
6305	Baltic silty clay loam, occasionally flooded	Baltic	5
6317	Barney variant fine sand, frequently flooded	Barney variant	5
6324	Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded	Coleridge	5
6366	Obert silt loam, occasionally flooded	Obert	5
6367	Obert silty clay loam, occasionally flooded	Obert	5
6385	Shell silt loam, occasionally flooded	Shell	5
6500	Bazile loam, 0 to 2 percent slopes	Bazile	3
6510	Blendon fine sandy loam, 2 to 6 percent slopes	Blendon	5
6513	Blendon loam, 0 to 2 percent slopes	Blendon	5
6520	Dudley-Moody complex, 0 to 2 percent slopes	Dudley	2
6540	Maskell loam, 0 to 2 percent slopes	Maskell	5
6541	Maskell loam, 2 to 6 percent slopes	Maskell	5
6601	Alcester silty clay loam, 6 to 11 percent slopes	Alcester	5
6603	Alcester silty clay loam, 2 to 6 percent slopes	Alcester	5
6681	Crofton silt loam, 17 to 30 percent slopes, eroded	Crofton	5

6686	Crofton silt loam, 30 to 60 percent slopes	Crofton	5
6693	Crofton-Nora complex, 2 to 6 percent slopes, eroded	Crofton	5
6694	Crofton-Nora complex, 6 to 11 percent slopes, eroded	Crofton	5
6703	Thurman loamy fine sand, 2 to 6 percent slopes	Thurman	5
6727	Thurman fine sandy loam, 2 to 11 percent slopes	Thurman	2
6736	Thurman-Loretto complex, 2 to 6 percent slopes	Thurman	5
6743	Thurman-Ortello complex, 6 to 11 percent slopes	Thurman	5
6756	Nora silt loam, 6 to 11 percent slopes, eroded	Nora	5
6760	Gavins silt loam, 17 to 30 percent slopes	Gavins	2
6761	Gavins silt loam, 30 to 60 percent slopes	Gavins	2
6762	Gavins silt loam, 6 to 17 percent slopes	Gavins	2
6767	Nora silty clay loam, 6 to 11 percent slopes	Nora	5
6787	Crofton-Alcester silt loams, 20 to 60 percent slopes	Crofton	5
6788	Crofton-Gavins silt loams, 30 to 60 percent slopes	Crofton	5
6789	Crofton-Nora complex, 11 to 17 percent slopes, eroded	Crofton	5
6794	Loretto loam, sand substratum, 2 to 6 percent slopes	Loretto	4
6797	Loretto loam, sand substratum, 6 to 11 percent slopes	Loretto	4
6805	Moody loam, 2 to 6 percent slopes	Moody	5
6808	Moody silty clay loam, 0 to 2 percent slopes	Moody	5
6811	Moody silty clay loam, 2 to 6 percent slopes	Moody	5
6812	Moody silty clay loam, 2 to 6 percent slopes, eroded	Moody	5
6814	Moody silty clay loam, 6 to 11 percent slopes, eroded	Moody	5
6826	Redstoe silt loam, 0 to 2 percent slopes	Redstoe	3
6827	Redstoe silt loam, 2 to 6 percent slopes	Redstoe	3
6828	Redstoe silt loam, 6 to 11 percent slopes	Redstoe	3
6829	Redstoe-Gavins complex, 11 to 30 percent slopes	Redstoe	3
6830	Talmo-Loretto complex, 3 to 11 percent slopes	Talmo	5
6845	Ortello fine sandy loam, 3 to 6 percent slopes	Ortello	5
6854	Ortello sandy loam, 11 to 17 percent slopes	Ortello	5
6855	Ortello sandy loam, 2 to 6 percent slopes	Ortello	5
6856	Ortello sandy loam, 6 to 11 percent slopes	Ortello	5
7180	Sarpy loamy fine sand, rarely flooded	Sarpy	5
7707	Grable silt loam, rarely flooded	Grable	3
7711	Albaton silty clay, frequently flooded	Albaton	5
7712	Albaton silty clay, rarely flooded	Albaton	5
7724	Blake silty clay loam, rarely flooded	Blake	5
7759	Modale silt loam, rarely flooded	Modale	4
7804	Percival silty clay, rarely flooded	Percival	2
7847	Sarpy-Riverwash complex, frequently flooded	Sarpy	5
7850	Sarpy fine sand, 3 to 11 percent slopes	Sarpy	5
7883	Onawa silty clay, rarely flooded	Onawa	5

8470	Gibbon silt loam, occasionally flooded	Gibbon	5
8869	Hord silt loam, cool, 0 to 2 percent slopes	Hord	5
8873	Hord silt loam, bedrock substratum, 0 to 1 percent slopes	Hord	4
8931	Simeon sand, 6 to 30 percent slopes, eroded	Simeon	5
8937	Simeon-Talmo-Ortello complex, 11 to 30 percent slopes	Simeon	5
9971	Arents, earthen dam	Arents	
9983	Gravel pit	Pits	
9986	Miscellaneous water, sewage lagoon	Water	
9999	Water	Water	



## Soil Loss Tolerance Values (T-Factors) For Dixon County

Map Unit Symbol	Map Unit Name	Dominant Component	T-Factor
3514	Lamo silt loam, overwash, 0 to 2 percent slopes, occasionally flooded	Lamo	5
3518	Lamo silty clay loam, 0 to 2 percent slopes, occasionally flooded	Lamo	5
6300	Aowa silt loam, occasionally flooded	Aowa	5
6301	Aowa silt loam, channeled, frequently flooded	Aowa	5
6305	Baltic silty clay loam, occasionally flooded	Baltic	5
6306	Baltic silty clay, occasionally flooded	Baltic	5
6324	Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded	Coleridge	5
6385	Shell silt loam, occasionally flooded	Shell	5
6400	Calco silt loam, overwash, occasionally flooded	Calco	5
6401	Calco silty clay loam, occasionally flooded	Calco	5
6403	Calco silty clay loam, wet, occasionally flooded	Calco	5
6516	Blendon sandy loam, 0 to 3 percent slopes	Blendon	5
6533	Loretto fine sandy loam, 0 to 2 percent slopes	Loretto	5
6540	Maskell loam, 0 to 2 percent slopes	Maskell	5
6541	Maskell loam, 2 to 6 percent slopes	Maskell	5
6601	Alcester silty clay loam, 6 to 11 percent slopes	Alcester	5
6602	Alcester silt loam, gullied, 11 to 60 percent slopes	Alcester	5
6603	Alcester silty clay loam, 2 to 6 percent slopes	Alcester	5
6617	Bazile silty clay loam, 2 to 6 percent slopes	Bazile	3
6630	Belfore-Moody silty clay loams, 1 to 3 percent slopes	Belfore	5
6681	Crofton silt loam, 17 to 30 percent slopes, eroded	Crofton	5
6685	Crofton silt loam, 2 to 6 percent slopes, eroded	Crofton	5
6686	Crofton silt loam, 30 to 60 percent slopes	Crofton	5
6687	Crofton silt loam, 6 to 11 percent slopes, eroded	Crofton	5
6693	Crofton-Nora complex, 2 to 6 percent slopes, eroded	Crofton	5
6694	Crofton-Nora complex, 6 to 11 percent slopes, eroded	Crofton	5
6703	Thurman loamy fine sand, 2 to 6 percent slopes	Thurman	5
6706	Thurman loamy fine sand, 6 to 11 percent slopes	Thurman	5
6720	Thurman sand, 2 to 20 percent slopes	Thurman	5
6734	Thurman-Leisy complex, 2 to 6 percent slopes	Thurman	5
6735	Thurman-Leisy complex, 6 to 11 percent slopes	Thurman	5
6736	Thurman-Loretto complex, 2 to 6 percent slopes	Thurman	5
6743	Thurman-Ortello complex, 6 to 11 percent slopes	Thurman	5
6749	Nora silt loam, 11 to 17 percent slopes	Nora	5
6750	Nora silt loam, 11 to 17 percent slopes, eroded	Nora	5

6751	Nora silt loam, 17 to 30 percent slopes	Nora	5
6753	Nora silt loam, 2 to 6 percent slopes	Nora	5
6754	Nora silt loam, 2 to 6 percent slopes, eroded	Nora	5
6756	Nora silt loam, 6 to 11 percent slopes, eroded	Nora	5
6767	Nora silty clay loam, 6 to 11 percent slopes	Nora	5
6769	Nora-Alcester silt loams, 11 to 17 percent slopes	Nora	5
6770	Nora-Alcester silt loams, 17 to 30 percent slopes	Nora	5
6782	Nora-Moody silty clay loams, 6 to 11 percent slopes	Nora	5
6787	Crofton-Alcester silt loams, 20 to 60 percent slopes	Crofton	5
6789	Crofton-Nora complex, 11 to 17 percent slopes, eroded	Crofton	5
6797	Loretto loam, sand substratum, 6 to 11 percent slopes	Loretto	4
6801	Leisy loam, 0 to 6 percent slopes	Leisy	5
6808	Moody silty clay loam, 0 to 2 percent slopes	Moody	5
6811	Moody silty clay loam, 2 to 6 percent slopes	Moody	5
6812	Moody silty clay loam, 2 to 6 percent slopes, eroded	Moody	5
6813	Moody silty clay loam, 6 to 11 percent slopes	Moody	5
6814	Moody silty clay loam, 6 to 11 percent slopes, eroded	Moody	5
6818	Moody-Leisy complex, 2 to 6 percent slopes	Moody	5
6819	Moody-Leisy complex, 6 to 11 percent slopes	Moody	5
6845	Ortello fine sandy loam, 3 to 6 percent slopes	Ortello	5
6855	Ortello sandy loam, 2 to 6 percent slopes	Ortello	5
6860	Crofton silt loam, 8 to 17 percent slopes, eroded	Crofton	5
7083	Sarpy loamy fine sand, occasionally flooded	Sarpy	5
7099	Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded	Zook	5
7153	Kennebec silt loam, rarely flooded	Kennebec	5
7705	Grable very fine sandy loam, rarely flooded	Grable	3
7710	Albaton silty clay, occasionally flooded	Albaton	5
7724	Blake silty clay loam, rarely flooded	Blake	5
7744	Haynie silt loam, rarely flooded	Haynie	5
7757	Modale very fine sandy loam, rarely flooded	Modale	4
7802	Percival silty clay, occasionally flooded	Percival	3
7847	Sarpy-Riverwash complex, frequently flooded	Sarpy	5
7848	Sarpy-Ustorthents complex, 0 to 4 percent slopes	Sarpy	5
7850	Sarpy fine sand, 3 to 11 percent slopes	Sarpy	5
7855	Sarpy silty clay, overwash, occasionally flooded	Sarpy	5
7880	Onawa silty clay, occasionally flooded	Onawa	5
7883	Onawa silty clay, rarely flooded	Onawa	5
9967	Sanitary landfill	Sanitary landfill	
9983	Gravel pit	Pits	
9986	Miscellaneous water, sewage lagoon	Water	

9999	Water	Water	
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### Soil Loss Tolerance Values (T-Factors) For Knox County

Map Unit Symbol	Map Unit Name	Dominant Component	T-Factor
2111	Inavale loamy fine sand, occasionally flooded, wet	Inavale	5
2118	Inavale fine sand, channeled, frequently flooded, wet	Inavale	5
2119	Inavale fine sand, rarely flooded, wet	Inavale	5
2120	Inavale fine sandy loam, occasionally flooded, wet	Inavale	2
2121	Inavale loamy fine sand, rarely flooded, wet	Inavale	5
2322	Inavale fine sand, channeled, frequently flooded	Inavale	5
2327	Inavale fine sandy loam, rarely flooded	Inavale	2
2330	Inavale fine sand, rarely flooded	Inavale	5
2331	Inavale loamy fine sand, rarely flooded	Inavale	5
2561	Eltree silt loam, 0 to 3 percent slopes	Eltree	5
2563	Eltree silt loam, 3 to 6 percent slopes	Eltree	5
3151	Bristow silty clay, 30 to 60 percent slopes	Bristow	2
3221	Labu silty clay, 6 to 11 percent slopes	Labu	3
3225	Labu-Sansarc silty clays, 9 to 35 percent slopes	Labu	3
3232	Lynch-Bristow complex, 11 to 30 percent slopes	Lynch	3
3235	Lynch-Verdel complex, 6 to 11 percent slopes	Lynch	3
3238	Mariaville very fine sandy loam, 2 to 30 percent slopes	Mariaville	2
3252	Meadin sandy loam, 0 to 2 percent slopes	Meadin	3
3259	Meadin-O'Neill complex, 2 to 30 percent slopes	Meadin	5
3267	O'Neill sandy loam, 0 to 2 percent slopes	O'Neill	5
3268	O'Neill sandy loam, 2 to 6 percent slopes	O'Neill	5
3285	Paka loam, 0 to 2 percent slopes	Paka	4
3286	Paka loam, 2 to 6 percent slopes	Paka	4
3287	Paka loam, 6 to 11 percent slopes, eroded	Paka	4
3290	Paka loam, 11 to 20 percent slopes	Paka	4
3320	Sansarc silty clay, 9 to 35 percent slopes	Sansarc	2
3323	Verdel silty clay, 0 to 2 percent slopes, wet	Verdel	5
3324	Verdel silty clay, 2 to 6 percent slopes, wet	Verdel	5
3327	Verdel silty clay, 0 to 2 percent slopes	Verdel	5
3328	Verdel silty clay, 2 to 6 percent slopes	Verdel	5
3329	Verdel silty clay, 6 to 11 percent slopes	Verdel	5
3330	Verdigre fine sandy loam, 11 to 30 percent slopes	Verdigre	4
3331	Verdigre fine sandy loam, 2 to 6 percent slopes	Verdigre	4
3332	Verdigre fine sandy loam, 6 to 11 percent slopes	Verdigre	4
3335	Verdigre loam, 2 to 6 percent slopes	Verdigre	4

3336	Verdigre loam, 6 to 11 percent slopes	Verdigre	4
3337	Verdigre loam, 11 to 30 percent slopes	Verdigre	4
3404	Longford silty clay loam, 3 to 7 percent slopes, eroded	Longford	5
3554	Hobbs silt loam, frequently flooded, wet	Hobbs	5
3561	Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool	Hobbs	5
3617	Solomon silty clay, occasionally flooded	Solomon	5
3618	Solomon silty clay, occasionally flooded, wet	Solomon	5
3619	Solomon silty clay, rarely flooded, wet	Solomon	5
3641	Kezan silt loam, channeled, frequently flooded	Kezan	5
3642	Kezan silt loam, occasionally flooded	Kezan	5
3645	Kezan silt loam, occasionally flooded, wet	Kezan	5
3756	Hord silt loam, rarely flooded, wet	Hord	5
3820	Butler silt loam, 0 to 1 percent slopes	Butler	3
3910	Scott silt loam, frequently ponded	Scott	5
3952	Fillmore silt loam, frequently ponded	Fillmore	3
4182	Longford silty clay loam, 7 to 11 percent slopes, eroded	Longford	5
4241	Ord fine sandy loam, occasionally flooded	Ord	3
4244	Ord loam, occasionally flooded	Ord	3
4250	Ord fine sandy loam, occasionally flooded, wet	Ord	3
4352	Elsmere fine sandy loam, rarely flooded	Elsmere	2
4354	Elsmere fine sandy loam, rarely flooded, wet	Elsmere	2
4553	Elsmere loamy fine sand, 0 to 3 percent slopes	Elsmere	5
4791	Valentine fine sand, 3 to 9 percent slopes	Valentine	5
4796	Valentine fine sand, 9 to 24 percent slopes	Valentine	5
5475	Betts clay loam, 11 to 15 percent slopes, eroded	Betts	5
5476	Betts clay loam, 15 to 30 percent slopes	Betts	5
5477	Betts clay loam, 30 to 60 percent slopes	Betts	5
5478	Betts clay loam, 6 to 11 percent slopes, eroded	Betts	5
5479	Betts clay loam, 6 to 15 percent slopes	Betts	5
6300	Aowa silt loam, occasionally flooded	Aowa	5
6301	Aowa silt loam, channeled, frequently flooded	Aowa	5
6302	Aowa silt loam, channeled, frequently flooded, wet	Aowa	5
6303	Aowa silt loam, occasionally flooded, wet	Aowa	5
6304	Barney loam, frequently flooded, wet	Barney	5
6312	Barney loam, frequently flooded	Barney	5
6324	Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded	Coleridge	5
6325	Coleridge silt loam, occasionally flooded, wet	Coleridge	5
6359	Norway loamy fine sand, frequently flooded, wet	Norway	5
6362	Obert silt loam, occasionally flooded, wet	Obert	5

6366	Obert silt loam, occasionally flooded	Obert	5
6369	Orwet loam, rarely flooded	Orwet	2
6370	Orwet loam, rarely flooded, wet	Orwet	2
6385	Shell silt loam, occasionally flooded	Shell	5
6500	Bazile loam, 0 to 2 percent slopes	Bazile	3
6508	Blendon fine sandy loam, 0 to 2 percent slopes	Blendon	5
6533	Loretto fine sandy loam, 0 to 2 percent slopes	Loretto	5
6551	Sardak loamy fine sand, 2 to 11 percent slopes, very rare flooding, wet	Sardak	5
6557	Shell silt loam, occasionally flooded, wet	Shell	5
6561	Thurman fine sandy loam, 0 to 2 percent slopes	Thurman	2
6575	Trent silt loam, 0 to 2 percent slopes	Trent	5
6576	Trent silt loam, moderately wet, 0 to 2 percent slopes	Trent	5
6578	Ortello fine sandy loam, 0 to 1 percent slopes	Ortello	5
6601	Alcester silty clay loam, 6 to 11 percent slopes	Alcester	5
6603	Alcester silty clay loam, 2 to 6 percent slopes	Alcester	5
6605	Bazile loam, 2 to 6 percent slopes	Bazile	3
6606	Bazile loam, 6 to 11 percent slopes	Bazile	3
6608	Bazile loamy fine sand, 0 to 2 percent slopes	Bazile	5
6609	Bazile loamy fine sand, 2 to 6 percent slopes	Bazile	5
6610	Bazile loamy fine sand, 6 to 11 percent slopes	Bazile	5
6636	Boelus loamy fine sand, 0 to 2 percent slopes	Boelus	4
6637	Boelus loamy fine sand, 2 to 6 percent slopes	Boelus	4
6642	Boelus loamy sand, 6 to 11 percent slopes	Boelus	5
6659	Brunswick fine sandy loam, 6 to 11 percent slopes	Brunswick	3
6661	Brunswick-Paka complex, 6 to 17 percent slopes	Paka	3
6663	Brunswick-Paka complex, 17 to 30 percent slopes	Brunswick	3
6670	Crofton-Thurman complex, 11 to 17 percent slopes, eroded	Thurman	5
6671	Crofton-Thurman complex, 17 to 30 percent slopes	Thurman	2
6672	Crofton-Thurman complex, 6 to 11 percent slopes, eroded	Thurman	5
6673	Crofton silt loam, 11 to 17 percent slopes, eroded	Crofton	5
6674	Crofton silt loam, coarse, 8 to 17 percent slopes, eroded	Crofton	5
6681	Crofton silt loam, 17 to 30 percent slopes, eroded	Crofton	5
6685	Crofton silt loam, 2 to 6 percent slopes, eroded	Crofton	5
6686	Crofton silt loam, 30 to 60 percent slopes	Crofton	5
6687	Crofton silt loam, 6 to 11 percent slopes, eroded	Crofton	5
6693	Crofton-Nora complex, 2 to 6 percent slopes, eroded	Crofton	5
6694	Crofton-Nora complex, 6 to 11 percent slopes, eroded	Crofton	5
6700	Thurman loamy fine sand, 0 to 2 percent slopes	Thurman	5

6703	Thurman loamy fine sand, 2 to 6 percent slopes	Thurman	5
6726	Thurman fine sandy loam, 11 to 30 percent slopes	Thurman	5
6727	Thurman fine sandy loam, 2 to 11 percent slopes	Thurman	2
6753	Nora silt loam, 2 to 6 percent slopes	Nora	5
6758	Nora silty clay loam, 11 to 17 percent slopes	Nora	5
6761	Gavins silt loam, 30 to 60 percent slopes	Gavins	2
6767	Nora silty clay loam, 6 to 11 percent slopes	Nora	5
6789	Crofton-Nora complex, 11 to 17 percent slopes, eroded	Crofton	5
6790	Loretto fine sandy loam, 2 to 6 percent slopes	Loretto	5
6804	Moody loam, 0 to 2 percent slopes	Moody	5
6805	Moody loam, 2 to 6 percent slopes	Moody	5
6808	Moody silty clay loam, 0 to 2 percent slopes	Moody	5
6811	Moody silty clay loam, 2 to 6 percent slopes	Moody	5
6828	Redstoe silt loam, 6 to 11 percent slopes	Redstoe	3
6829	Redstoe-Gavins complex, 11 to 30 percent slopes	Redstoe	3
6845	Ortello fine sandy loam, 3 to 6 percent slopes	Ortello	5
7708	Albaton silty clay, frequently flooded, wet	Albaton	5
7709	Albaton silty clay, occasionally flooded, wet	Albaton	5
7710	Albaton silty clay, occasionally flooded	Albaton	5
7711	Albaton silty clay, frequently flooded	Albaton	5
7762	Onawa silty clay, occasionally flooded, wet	Onawa	5
7764	Blyburg silt loam, rarely flooded, wet	Blyburg	5
7805	Percival silty clay, rarely flooded, wet	Percival	3
7883	Onawa silty clay, rarely flooded	Onawa	5
8420	Boel loamy fine sand, occasionally flooded	Boel	5
8427	Boel loamy fine sand, occasionally flooded, wet	Boel	5
8470	Gibbon silt loam, occasionally flooded	Gibbon	5
8482	Gibbon silt loam, occasionally flooded, wet	Gibbon	5
8595	Wann loam, occasionally flooded, wet	Wann	5
8869	Hord silt loam, cool, 0 to 2 percent slopes	Hord	5
8926	Simeon loamy sand, 0 to 6 percent slopes	Simeon	5
8931	Simeon sand, 6 to 30 percent slopes, eroded	Simeon	5
8933	Simeon sandy loam, 0 to 6 percent slopes	Simeon	5
8938	Simeon-Thurman complex, 6 to 30 percent slopes	Simeon	5
9707	Urban land, 3 to 30 percent slopes	Urban land	
9900	Fluvaquents, frequently flooded	Fluvaquents	5
9911	Fluvaquents, frequently flooded, wet	Fluvaquents	5
9967	Sanitary landfill	Sanitary landfill	
9983	Gravel pit	Pits	
9986	Miscellaneous water, sewage lagoon	Water	
9999	Water	Water	

## **Appendix B**

### **Recommended Practices for Controlling Erosion and Sedimentation**

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

#### 1. Permanent Soil and Water Conservation Practices for Controlling Erosion and Sedimentation on Agricultural Lands

Permanent soil and water conservation practices are activities which often are part of an on-going (longer than one year) resource management system and may be recommended and adopted as part of a conservation plan. For those practices found on both this list 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.

- Channel Vegetation
- Area Planting
- Diversions
- Field Borders
- Field Windbreaks
- Gabions
- Grade Stabilization Structures
- Grassed Waterways or Outlets
- Pasture and Hayland Planting
- Sediment Retention Basins
- Terraces
- Tree Plantings
- Underground Outlets
- Water and Sediment Control Structures

#### 2. Temporary Soil and Water Conservation Practices for Controlling Erosion and Sedimentation on Agricultural Lands

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 assistance is not required.

- Conservation Cropping Systems
- Conservation Tillage Systems
- Contour Farming
- Cover and Green Manure Crop
- Crop Residue Management
- Livestock Exclusion
- Mulching
- Pasture and Hayland Management
- Contour Strip Cropping

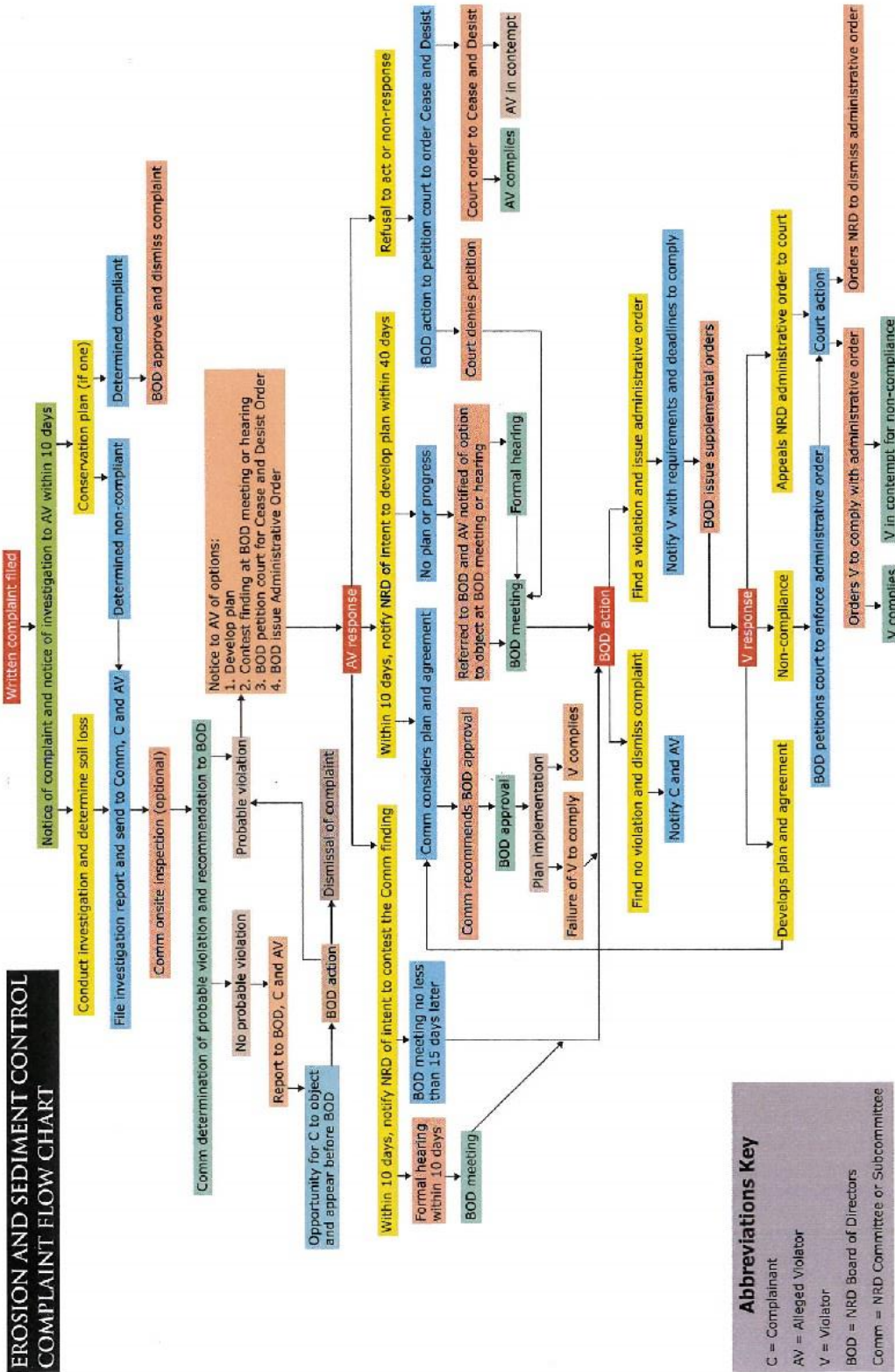
3. Erosion and Sediment Control Practices for Controlling Erosion and Sedimentation on Land Not used for Agriculture, Horticulture, or Silvicultural Purposes

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 include permanent and temporary structure and devices that may be required to treat erosion on, *and* sedimentation from, these lands, but cost share assistance need not be made available.

- Channel Vegetation
- Check Dams
- Chutes/Flumes
- Cover Crops
- Critical Area Planting
- Dams
- Dikes
- Diversions
- Gabions
- Grade Stabilization Structures
- Grassed Waterways or Outlets
- Interceptor or Perimeter Swales
- Lining of Waterways or Outlets
- Mulching
- Riprap
- Roadside Seeding
- Sandbag Sediment Barriers
- Silt Fences
- Straw Bale Sediment Barriers
- Stream Channel Stabilization
- Terraces
- Tree Plantings
- Underground Outlets
- Water and Sediment Control Structures



APPENDIX C





**Pete Ricketts**  
Governor

# STATE OF NEBRASKA

**DEPARTMENT OF NATURAL RESOURCES**  
Gordon W. "Jeff" Fassett, P.E.  
Director

IN REPLY TO:

September 9, 2016

Annette Sudbeck, General Manager  
Lewis & Clark NRD  
608 N. Robinson Avenue  
P.O. Box 518  
Hartington, NE 68739

Dear Ms. Sudbeck;

Thank you for filing the Lewis & Clark NRD's amended Erosion and Sediment Control program. After review, the Nebraska Natural Resources Commission, on September 8, 2016, recommended approval.

My staff and I have also reviewed your district's program and I find it to be reasonable, attainable, and in conformance with the state Erosion and Sediment Control program. Therefore, in accordance with § 2-4605, I hereby approve the Lewis & Clark NRD's amended Erosion and Sediment Control program.

Sincerely,

A handwritten signature in cursive script that reads "Gordon W. Fassett".

Gordon W. Fassett  
Director