LITTLE BLUE NATURAL RESOURCES DISTRICT

EROSION AND SEDIMENT CONTROL PROGRAM

RULES AND REGULATIONS

Proposed by the Board of Directors – April 12, 2016
APPROVED BY DNR AUGUST 1, 2016

Table of Contents

LITTLE BLUE 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 Little Blue Natural Resources District.

(c) Committee means the Projects and Planning Committee of the Little Blue 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 Little Blue 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 of 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(h) (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.

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 on 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 approve 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 and 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 found in each county of the Little Blue Natural Resources District and the soil-loss tolerance levels for each soil. Each soil is listed by its NRCS assigned numerical symbol, the map unit name and dominant soil type for the map unit.

Soil-Loss Tolerance Level Tables are found on the following pages.

ADAMS COUNTY HIGHLY ERODIBLE LAND REPORT

Page 1

Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
lg	2110	Inavale loamy fine sand, occasionally flooded	5	134	0.15
In	2328	Inavale fine sandy loam, occasionally flooded	5	86	0.28
	2331	Inavale loamy fine sand, rarely flooded	5	134	0.15
	2521	Coly-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
	2524	Coly silt loam, 3 to 11 percent slope	5	86	0.43
CbD	2533	Coly silt loam, 11 to 30 percent slopes	5	86	0.37
RB	2536	Coly silt loam, 30 to 60 percent slopes	5	86	0.43
CbC	2537	Coly silt loam, 6 to 11 percent slopes	5	86	0.37
	2538	Coly silt loam, 6 to 11 percent slopes, eroded	5	86	0.43
	2558	Coly-Uly silt loams, 6 to 11 percent slopes, eroded	5	86	0.37
	2560	Coly-Uly-Hobbs silt loams, 3 to 60 percent slopes	5	86	0.43
	2595	Hersh fine sandy loam, 0 to 3 percent slopes	5	86	0.20
HmB	2596	Hersh fine sandy loam, 3 to 6 percent slopes	5	86	0.20
HR	2615	Hersh-Kenesaw complex, undulating	5	86	0.20
	2667	Holdrege silt loam, 0 to 1 percent slopes	5	48	0.49
	2668	Holdrege silt loam, 1 to 3 percent slopes	5	48	0.49
	2675	Holdrege silt loam, 3 to 7 percent slopes, plains and breaks	5	48	0.49
	2676	Holdrege silt loam, 3 to 7 percent slopes, eroded, plains and breaks	5	48	0.43
	2830	Uly-Coly silt loams, 11 to 30 percent slopes	5	48	0.32
By	2834	Uly-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
Ms	3252	Meadin sandy loam, 0 to 2 percent slopes	2	86	0.15
	3545	Hobbs silt loam, channeled, frequently flooded	5	56	0.37
Sy	3553	Hobbs silt loam, frequently flooded	5	56	0.37
2Hb	3561	Hobbs silt loam, occasionally flooded	5	56	0.37
Cs	3710	Cass fine sandy loam, rarely flooded	4	86	0.20
M	3730	Massie silt loam, frequently ponded	5	48	0.32
	3731	Massie silty clay loam, frequently ponded	3	48	
Hv	3755	Hord silt loam, rarely flooded	5	48	0.32
	3800	Crete silt loam, 0 to 1 percent slopes, loess plains and breaks	5	48	0.37
Bu	3820	Butler silt loam, 0 to 1 percent slopes	3	48	0.37
Ce	3824	Crete silt loam, 0 to 1 percent slopes	5	48	0.37
GsE	3835	Geary silt loam, 11 to 30 percent slopes	5	48	0.37
GsC	3838	Geary silt loam, 7 to 11 percent slopes	5	48	0.37
GeC2	3840	Geary silty clay loam, 7 to 11 percent slopes, eroded	5	48	0.37
GsB	3844	Geary silt loam, 3 to 7 percent slopes	5	48	0.37
GeB2	3846	Geary silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
	3851	Geary-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
Hs	3864	Hastings silt loam, 0 to 1 percent slopes	5	48	0.37
HsA	3866	Hastings silt loam, 1 to 3 percent slopes	5	48	0.37
	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.43
2Hs	3871	Hastings silt loam, thin solum variant	5	48	0.37
HgA	3880	Holder silt loam, 1 to 3 percent slopes	5	48	0.37
	3881	Holder loam, 0 to 3 percent slopes, overblown	5	48	0.32
HgB	3882	Holder silt loam, 3 to 7 percent slopes	5	48	0.37
HgB2	3883	Holder silt loam, 3 to 7 percent slopes, eroded	5	48	0.37
HgC	3884	Holder silt loam, 7 to 11 percent slopes	5	48	0.37
Hg	3885	Holder silt loam, 0 to 1 percent slopes	5	48	0.37
	3887	Holder silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37

ADAMS COUNTY HIGHLY ERODIBLE LAND REPORT

Page 2

Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
HgB3	3888	Holder silty clay loam, 3 to 7 percent slopes, severely eroded	4	48	0.37
	3889	Holder silty clay loam, 7 to 11 percent slopes, eroded	5	48	0.37
Sc	3910	Scott silt loam, frequently ponded	3	48	0.37
Fm	3952	Fillmore silt loam, frequently ponded	3	48	0.37
HgC3	4114	Holder silty clay loam, 7 to 11 percent slopes, severely eroded	4	48	0.37
	4138	Holdrege silt loam, 7 to 11 percent slopes	5	48	0.49
	4147	Holdrege soils, 3 to 7 percent slopes, severely eroded	4	48	0.37
	4148	Holdrege soils, 7 to 11 percent slopes, severely eroded	4	48	0.37
	4222	Bolent loam, occasionally flooded	2	86	0.28
	4232	Calamus loamy fine sand, rarely flooded	5	134	0.20
	4814	Valentine loamy fine sand, 0 to 3 percent slopes	5	134	0.15
	4818	Valentine loamy fine sand, 3 to 9 percent slopes	5	134	0.15
VbC	4834	Valentine loamy fine sand, rolling	5	134	0.15
TxB	6571	Thurman-Valentine loamy fine sands, undulating	5	134	0.17
2Ap	6579	Ortello loam, 0 to 1 percent slopes	5	56	0.32
	7262	Deroin soils, 6 to 11 percent slopes, severely eroded	4	48	0.32
	8415	Boel fine sandy loam, rarely flooded	2	86	0.20
	8434	Cass fine sandy loam, overwash, occasionally flooded	2	86	0.24
Cm	8435	Cass loam, rarely flooded	5	56	0.28
2Cm	8436	Cass loam, occasionally flooded	5	56	0.28
	8439	Cass silt loam, occasionally flooded	3	56	0.37
	8491	Gothenburg loam, frequently flooded	5	56	0.32
Rw	8493	Gothenburg loamy sand, frequently flooded	5	134	0.15
LA	8506	Lex silt loam, rarely flooded	3	86	0.32
Pt	8563	Platte loam, occasionally flooded	2	86	0.32
	8570	Platte-Bolent complex, occasionally flooded	2	86	0.28
2An	8808	Anselmo fine sandy loam, terrace, 0 to 1 percent slopes	5	86	0.20
2AnA	8809	Anselmo fine sandy loam, terrace, 1 to 3 percent slopes	5	86	0.20
	8812	Cozad loam, sand substratum, 0 to 3 percent slopes	5	56	0.37
2Ks	8815	Cozad silt loam, 0 to 1 percent slopes	5	48	0.43
Ha	8840	Hall silt loam, 0 to 1 percent slopes	5	48	0.37
2Hd	8866	Hord silt loam, 0 to 1 percent slopes, warm	5	48	0.37
2HdA	8870	Hord silt loam, 1 to 3 percent slopes	5	48	0.37
	8932	Simeon sandy loam, 0 to 3 percent slopes	5	86	0.15
	9025	Gates fine sandy loam, 0 to 3 percent slopes, hummocky	5	86	0.20
	9026	Gates silt loam, 0 to 1 percent slopes	5	56	0.49
	9027	Gates silt loam, 1 to 3 percent slopes	5	56	0.49
Ks	9063	Kenesaw silt loam, 0 to 1 percent slopes	5	56	0.43
KsA	9064	Kenesaw silt loam, 1 to 3 percent slopes	5	56	0.43
KsB	9066	Kenesaw silt loam, 3 to 6 percent slopes	5	56	0.43
Ru	9080	Rusco silt loam, 0 to 1 percent slopes	5	56	0.43
S	9830	Spoil banks	5	86	0.37
INT	9970	Aquolls	5	0	0
AED	9971	Arents, earthen dam	0	0	0
BP	9976	Borrow pit	0	0	0
GP	9983	Gravel pit	0	0	0
M-W	9986	Miscellaneous water, sewage lagoon	0	0	0
W	9999	Water	0	0	0

CLAY COUNTY HIGHLY ERODIBLE LAND REPORT

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
	2667	Holdrege silt loam, 0 to 1percent slopes	5	48	0.49
UyE2	2823	Uly silt loam, 11to 17 percent slopes, eroded	5	48	0.37
	2824	Uly silt loam, 11to 30 percent slopes, eroded	5	48	0.37
UyF	2834	Uly-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
MdF	3255	Meadin sandy loam, 2 to 30 percent slopes	5	86	0.20
Hf	3545	Hobbs silt loam, channeled, frequently flooded	5	56	0.37
He	3561	Hobbs silt loam, occasionally flooded	5	56	0.37
Ma	3731	Massie silty clay loam, frequently ponded	3	48	
Bu	3820	Butler silt loam, 0 to 1percent slopes	3	48	0.37
Ce	3824	Crete silt loam, 0 to 1percent slopes	5	48	0.37
CeB	3825	Crete silt loam, 1to 3 percent slopes	5	48	0.37
	3835	Geary silt loam, 11to 30 percent slopes	5	48	0.37
GeE2	3837	Geary silty clay loam, 11to 17 percent slopes, eroded	5	48	0.37
GaD	3838	Geary silt loam, 7 to 11percent slopes	5	48	0.37
GeD2	3840	Geary silty clay loam, 7 to 11percent slopes, eroded	5	48	0.37
GaC	3844	Geary silt loam, 3 to 7 percent slopes	5	48	0.37
GeC2	3846	Geary silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
GaF	3851	Geary-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
Hc	3864	Hastings silt loam, 0 to 1percent slopes	5	48	0.37
HcB	3866	Hastings silt loam, 1to 3 percent slopes	5	48	0.37
HcC	3868	Hastings silt loam, 3 to 7 percent slopes	5	48	0.37
HdC2	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.43
HgC	3882	Holder silt loam, 3 to 7 percent slopes	5	48	0.37
HgD	3884	Holder silt loam, 7 to 11percent slopes	5	48	0.37
HhC2	3887	Holder silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
HhD2	3889	Holder silty clay loam, 7 to 11percent slopes, eroded	5	48	0.37
Sc	3910	Scott silt loam, frequently ponded	3	48	0.37
Fm	3952	Fillmore silt loam, frequently ponded	3	48	0.37
Fo	3953	Fillmore silt loam, drained, 0 to 1percent slopes	3	48	0.37
HdD2	3962	Hastings silty clay loam, 7 to 11percent slopes, eroded	5	48	0.43
Cg	4100	Crete silt loam, thick solum, 0 to 1percent slopes	5	48	0.32
Ca	8434	Cass fine sandy loam, overwash, occasionally flooded	2	86	0.24
	8436	Cass loam, occasionally flooded	5	56	0.28
Cd	8439	Cass silt loam, occasionally flooded	3	56	0.37
Ha	8840	Hall silt loam, 0 to 1percent slopes	5	48	0.37
	8866	Hall silt loam, 0 to 1percent slopes, warm	5	48	0.37
HrB	8870	Hord silt loam, 1to 3 percent slopes	5	48	0.37
LD	9967	Sanitary landfill			0
INT	9970	Aquolls	5		0
AED	9971	Arents, earthen dam			0
GP	9983	Gravel pit			0
M-W	9986	Miscellaneous water, sewage lagoon			0
W	9999	Water			0

FILLMORE COUNTY HIGHLY ERODIBLE LAND REPORT

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
UyE2	2823	Uly silt loam, 11to 17 percent slopes, eroded	5	48	0.37
UyF	2834	Uly-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
Hf	3545	Hobbs silt loam, channeled, frequently flooded	5	56	0.37
	3557	Hobbs silt loam, channeled, occasionally flooded	5	48	0.37
He	3561	Hobbs silt loam, occasionally flooded	5	48	0.37
	3641	Kezan silt loam, channeled, frequently flooded	5	48	0.32
Ma	3731	Massie silty clay loam, frequently ponded	3	48	0.00
	3775	Muir silt loam, rarely flooded	5	48	0.32
	3776	Muir silt loam, 1to 3 percent slope	5	48	0.32
	3777	Muir silt loam, 3 to 7 percent slope	5	48	0.32
	3812	Olbut-Butler silt loams, 0 to 1percent slopes	3	48	0.37
	3817	Butler silty clay loam, 0 to 1percent slopes	5	48	0.37
Bu	3820	Butler silt loam, 0 to 1percent slopes	3	48	0.37
Ce	3824	Crete silt loam, 0 to 1percent slopes	5	48	0.37
CeB	3825	Crete silt loam, 1to 3 percent slopes	5	48	0.37
	3826	Crete silt loam, 3 to 7 percent slopes	5	48	0.37
	3827	Crete silty clay loam, 0 to 1percent slopes	5	48	0.37
	3829	Crete silty clay loam, 1to 3 percent slopes	5	48	0.37
	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
GeE2	3837	Geary silty clay loam, 11to 17 percent slopes, eroded	5	48	0.37
	3839	Geary silt loam, 11to 30 percent slopes	5	48	0.37
GeD2	3840	Geary silty clay loam, 7 to 11percent slopes, eroded	5	48	0.37
GeC2	3846	Geary silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
GaF	3851	Geary-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
Hc	3864	Hastings silt loam, 0 to 1percent slopes	5	48	0.37
HcB	3866	Hastings silt loam, 1to 3 percent slopes	5	48	0.37
HcC	3868	Hastings silt loam, 3 to 7 percent slopes	5	48	0.37
	3869	Hastings silt loam, 7 to 11perecent slopes	5	48	0.32
HdC2	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.43
HhD2	3889	Holder silty clay loam, 7 to 11percent slopes, eroded	5	48	0.37
Sc	3910	Scott silt loam, frequently ponded	3	48	0.37
	3913	Scott silty clay loam, drained, 0 to 1percent slopes	5	48	0.37
Fm	3952	Fillmore silt loam, frequently ponded	3	48	0.37
Fo	3953	Fillmore silt loam, drained, 0 to 1percent slopes	3	48	0.37
HdD2	3962	Hastings silty clay loam, 7 to 11percent slopes, eroded	5	48	0.43
Cg	4100	Crete silt loam, thick solum, 0 to 1percent slopes	5	48	0.32
	7258	Deroin silty clay loam, 6 to 11percent slopes, eroded	5	48	0.32
	8866	Hord silt loam, 0 to 1percent slopes, warm	5	48	0.37
HrB	8870	Hord silt loam, 1to 3 percent slopes	5	48	0.37
INT	9970	Aquolls	5		0.00
AED	9971	Arents, earthen dam			0.00
GP	9983	Gravel pit			0.00
M-W	9986	Miscellaneous water, sewage lagoon			0.00
W	9999	Water			0.00

JEFFERSON COUNTY HIGHLY ERODIBLE LAND REPORT

Page 1

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
	2834	Uly-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
JaB	3184	Jansen loam, 2 to 6 percent slopes	3	56	0.24
JaB2	3185	Jansen loam, 3 to 7 percent slopes, eroded	3	56	0.24
JaC	3186	Jansen loam, 6 to 11percent slopes	3	56	0.24
MwD	3247	Meadin loam, 6 to 30 percent slopes	2	56	0.32
EdB2	3361	Edalgo silty clay loam, 3 to 7 percent slopes, eroded	3	48	0.37
LcB2	3392	Lancaster loam, 3 to 7 percent slopes, eroded	3	48	0.32
	3404	Longford silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
	3545	Hobbs silt loam, channeled, frequently flooded	5	56	0.37
Sy	3557	Hobbs silt loam, channeled, occasionally flooded	5	48	0.37
2Hb	3561	Hobbs silt loam, occasionally flooded	5	56	0.37
Hd	3775	Muir silt loam, rarely flooded	5	48	0.32
HbA	3776	Muir silt loam, 1to 3 percent slopes	5	48	0.32
	3800	Crete silt loam, 0 to 1percent slopes, loess plains and breaks	5	48	0.37
	3801	Crete silt loam, 1to 3 percent slopes, loess plains and breaks	5	48	0.37
	3802	Crete silt loam, 3 to 7 percent slopes, eroded, loess plains and breaks	5	48	0.37
Bu	3820	Butler silt loam, 0 to 1percent slopes	3	48	0.37
Ce	3824	Crete silt loam, 0 to 1percent slopes	5	48	0.37
CeA	3825	Crete silt loam, 1to 3 percent slopes	5	48	0.37
CrB2	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
CeC	3832	Crete silt loam, 7 to 11percent slopes	5	48	0.32
GeC3	3834	Geary silty clay loam, 3 to 11percent slopes, severely eroded	4	48	0.37
GeE	3839	Geary silty clay loam, 11to 30 percent slopes	5	48	0.37
GeC	3840	Geary silty clay loam, 7 to 11percent slopes, eroded	5	48	0.37
	3841	Geary silty clay loam, 11to 30 percent slopes, severely eroded	4	48	0.37
GeB	3846	Geary silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
EdC	3855	Edalgo silty clay loam, 7 to 11percent slopes	3	48	0.32
GJC	3857	Geary and Jansen soils, 7 to 11percent slopes	3	48	0.37
GJE	3860	Geary and Jansen soils, 11to 30 percent slopes	3	48	0.37
GJC2	3861	Geary and Jansen soils, 7 to 11percent slopes, eroded	5	48	0.37
GJC3	3862	Geary and Jansen soils, 7 to 11percent slopes, severely eroded	2	48	0.37
HsA	3866	Hastings silt loam, 1to 3 percent slopes	5	48	0.37
HtC3	3867	Hastings silty clay loam, 3 to 11percent slopes, severely eroded	5	48	0.32
HsB	3868	Hastings silt loam, 3 to 7 percent slopes	5	48	0.37
HsC	3869	Hastings silt loam, 7 to 11percent slopes	5	48	0.32
HtB2	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.43
	3962	Hastings silty clay loam, 7 to 11percent slopes, eroded	5	48	0.43
Rv	4108	Hedville loam, 30 to 50 percent slopes	1	48	0.17
HvE	4110	Hedville loam, 7 to 30 percent slopes	1	56	0.28
KsD	4161	Kipson silt loam, 7 to 30 percent slopes	2	56	0.24
	4162	Kipson soils, 11to 30 percent slopes	2	56	0.20
LEE	4170	Lancaster and Edalgo soils, 11to 30 percent slopes	3	48	0.28
LcC	4173	Lancaster loam, 7 to 11percent slopes	3	48	0.28
LanC3	4175	Lancaster soils, 7 to 11percent slopes, severely eroded	3	86	0.10

JEFFERSON COUNTY HIGHLY ERODIBLE LAND REPORT

Page 2

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
Wx	6365	Obert soils, occasionally flooded	5	86	0.37
Hb	7153	Kennebec silt loam, rarely flooded	5	48	0.28
BdE	7217	Burchard clay loam, 11 to 30 percent slopes	5	48	0.24
BdB	7226	Burchard clay loam, 2 to 6 percent slopes	5	48	0.24
BdC	7227	Burchard clay loam, 6 to 11 percent slopes	5	48	0.24
BdC3	7228	Burchard clay loam, 6 to 11 percent slopes, eroded	5	48	0.24
HbA	7231	Judson silt loam, 2 to 6 percent slopes	5	48	0.37
	7257	Deroin silty clay loam, 2 to 6 percent slopes, eroded	5	48	0.32
	7258	Deroin silty clay loam, 6 to 11 percent slopes, eroded	5	48	0.32
	7266	Burchard-Steinauer clay loams, 11 to 17 percent slopes, eroded	5	48	0.24
	7267	Burchard-Steinauer clay loams, 11 to 30 percent slopes	5	48	0.24
	7268	Burchard-Steinauer clay loams, 6 to 11 percent slopes, eroded	5	48	0.24
MnC2	7297	Malcolm silt loam, 6 to 11 percent slopes, eroded	5	48	0.43
	7344	Malmo, eroded-Pawnee complex, 6 to 11 percent slopes	4	86	0.24
	7347	Malmo silty clay loam, 6 to 11 percent slopes, eroded	4	86	0.37
	7348	Malmo silty clay loam, 3 to 6 percent slopes, eroded	4	86	0.37
	7349	Malmo clay loam, 2 to 6 percent slopes, eroded	4	86	0.24
MadC3	7350	Malmo clay, 3 to 11 percent slopes, eroded	4	86	0.24
	7411	Cortland-Malmo complex, 6 to 11 percent slopes, eroded	3	48	0.32
MrE	7417	Morrill clay loam, 11 to 30 percent slopes	5	48	0.24
MrC	7418	Morrill clay loam, 6 to 11 percent slopes	5	48	0.24
	7422	Morrill clay loam, 6 to 11 percent slopes, eroded	5	48	0.24
MrB	7423	Morrill clay loam, 3 to 6 percent slopes	5	48	0.24
MrB2	7425	Morrill clay loam, 3 to 6 percent slopes, eroded	5	48	0.24
MC3	7432	Morrill soils, 6 to 11 percent slopes, severely eroded	5	48	0.24
	7464	Otoe silty clay loam, 6 to 11 percent slopes, eroded	5	86	0.28
BfD	7550	Benfield silty clay loam, 11 to 30 percent slopes	3	38	0.24
BfB2	7551	Benfield silty clay loam, 3 to 11 percent slopes, eroded	3	38	0.24
BfC	7552	Benfield silty clay loam, 6 to 11 percent slopes, eroded	3	38	0.24
	7611	Steinauer clay loam, 11 to 30 percent slopes	5	86	0.24
MaaB2	7666	Mayberry silty clay loam, 3 to 6 percent slopes, eroded	5	48	0.32
MaaC	7667	Mayberry silty clay loam, 6 to 11 percent slopes	5	48	0.32
	7689	Wymore silty clay loam, 0 to 2 percent slopes	5	48	0.32
	7693	Wymore silty clay loam, 2 to 6 percent slopes	5	48	0.32
5540	7750	Nodaway silt loam, occasionally flooded	5	48	0.37
Sy	7868	Nodaway silt loam, channeled, occasionally flooded	5	48	0.37
Cm	8435	Cass loam, rarely flooded	5	56	0.28
2Cm	8436	Cass loam, occasionally flooded	3	56	0.28
HdA	8870	Hord silt loam, 1 to 3 percent slopes	3	48	0.32
Sx	9903	Fluvaquents, sandy, frequently flooded	5	0	0.05
AED	9971	Arents, earthen dam			
MP	9975	Mine or quarry		0	
BP	9976	Borrow pit			
GP	9983	Gravel pit	0	0	0.00
M-W	9986	Miscellaneous water, sewage lagoon			
W	9999	Water			

NUCKOLLS COUNTY HIGHLY ERODIBLE LAND REPORT

Page 1

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
In	2327	Inavale fine sandy loam, rarely flooded	5	86	0.28
Ig	2335	Inavale loamy fine sand, 0 to 3 percent slopes	5	134	0.15
Mb	2345	McCook fine sandy loam, rarely flooded	5	86	0.24
Mc	2347	McCook silt loam, rarely flooded	5	86	0.37
Mu	2368	Munjor soils, occasionally flooded	4	56	0.37
	2521	Coly-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
	2560	Coly-Uly-Hobbs silt loams, 3 to 60 percent slopes	5	86	0.43
	2668	Holdrege silt loam, 1to 3 percent slopes	5	48	0.49
	2675	Holdrege silt loam, 3 to 7 percent slopes, plains and breaks	5	48	0.49
	2676	Holdrege silt loam, 3 to 7 percent slopes, eroded, plains and breaks	5	48	0.43
	2823	Uly silt loam, 11to 17 percent slopes, eroded	5	48	0.37
UyF	2824	Uly silt loam, 11to 30 percent slopes, eroded	5	48	0.37
	2834	Uly-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
MdF	3247	Meadin loam, 6 to 30 percent slopes	2	56	0.37
	3261	Muir silt loam, very rarely flooded	5	48	0.32
	3521	Cass fine sandy loam, occasionally flooded	4	86	0.28
	3537	Gibbon silty clay loam, occasionally flooded	4	48	0.37
HeB	3545	Hobbs silt loam, channeled, frequently flooded	5	56	0.37
Hf	3561	Hobbs silt loam, occasionally flooded	5	56	0.37
Ma	3731	Massie silty clay loam, frequently ponded	3	48	0.00
	3800	Crete silt loam, 0 to 1percent slopes, loess plains and breaks	5	48	0.37
Bu	3820	Butler silt loam, 0 to 1percent slopes	3	48	0.37
Cr	3824	Crete silt loam, 0 to 1percent slopes	5	48	0.37
GfF	3833	Geary-Uly complex, 11to 30 percent slopes	5	48	0.37
GfF3	3836	Geary variant-Uly complex, 11to 30 percent slopes, severely eroded	5	48	0.37
GaD	3838	Geary silt loam, 7 to 11percent slopes	5	48	0.37
GeD2	3840	Geary silty clay loam, 7 to 11percent slopes, eroded	5	48	0.37
GaC	3844	Geary silt loam, 3 to 7 percent slopes	5	48	0.37
GeC2	3846	Geary silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
	3851	Geary-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
	3852	Geary and Hobbs soils	5	48	0.37
GgC	3859	Geary and Jansen silt loams, 3 to 7 percent slopes	5	48	0.37
GhF	3860	Geary and Jansen soils, 11to 30 percent slopes	3	48	0.37
GhD2	3861	Geary and Jansen soils, 7 to 11percent slopes, eroded	5	48	0.37
Hc	3864	Hastings silt loam, 0 to 1percent slopes	5	48	0.37
HcB	3866	Hastings silt loam, 1to 3 percent slopes	5	48	0.37
HcC	3868	Hastings silt loam, 3 to 7 percent slopes	5	48	0.37
	3869	Hastings silt loam, 7 to 11percent slopes	5	48	0.32
HdC2	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.43
HgB	3880	Holder silt loam, 1to 3 percent slopes	5	48	0.37
HgC	3882	Holder silt loam, 3 to 7 percent slopes	5	48	0.37
HgD	3884	Holder silt loam, 7 to 11percent slopes	5	48	0.37
HhC2	3887	Holder silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
HhD2	3889	Holder silty clay loam, 7 to 11percent slopes, eroded	5	48	0.37

NUCKOLLS COUNTY HIGHLY ERODIBLE LAND REPORT

Page 2

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
Sc	3910	Scott silt loam, frequently ponded	3	48	0.37
Fm	3952	Fillmore silt loam, frequently ponded	3	48	0.37
	4138	Holdrege silt loam, 7 to 11 percent slopes	5	48	0.49
	4147	Holdrege soils, 3 to 7 percent slopes, severely eroded	4	48	0.37
KsF	4161	Kipson silt loam, 7 to 30 percent slopes	2	56	0.24
Sa	6379	Saltine soils, occasionally flooded	5	86	0.43
	7261	Deroin soils, 3 to 6 percent slopes, severely eroded	4	48	0.32
	7262	Deroin soils, 6 to 11 percent slopes, severely eroded	4	48	0.32
Ca	8436	Cass loam, occasionally flooded	4	56	0.32
Gn	8470	Gibbon silt loam, occasionally flooded	5	86	0.32
Sb	8493	Gothenburg loamy sand, frequently flooded	5	134	0.15
Wb	8581	Wann fine sandy loam, rarely flooded	5	86	0.24
Wm	8585	Wann loam, rarely flooded	5	56	0.28
Co	8815	Cozad silt loam, 0 to 1 percent slopes	5	56	0.43
Ha	8840	Hall silt loam, 0 to 1 percent slopes	5	48	0.37
	8866	Hord silt loam, 0 to 1 percent slopes, warm	5	48	0.37
HrB	8870	Hord silt loam, 1 to 3 percent slopes	5	48	0.37
HrC	8872	Hord silt loam, 3 to 6 percent slopes	5	48	0.32
	9903	Fluvaquents, sandy, frequently flooded	5	0	0.05
LD	9967	Sanitary landfill			
AED	9971	Arents, earthen dam			
GP	9983	Gravel pit			
M-W	9986	Miscellaneous water, sewage lagoon			
W	9999	Water			

THAYER COUNTY HIGHLY ERODIBLE LAND REPORT

Page 1

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
2Ly	2376	Roxbury silty clay loam, rarely flooded	5	86	0.32
	2824	Uly silt loam, 1 to 3 percent slopes, eroded	5	48	0.37
By	2834	Uly-Hobbs silt loams, 0 to 3 percent slopes	5	48	0.37
WKC	2900	Wakeen and Kipson silty clay loams, 6 to 11 percent slopes	3	86	0.37
WKC3	2901	Wakeen and Kipson variant silty clay loams, 6 to 11 percent slopes, severely eroded	3	86	0.37
WeD	2905	Wakeen silty clay loam, 12 to 30 percent slopes	3	86	0.37
JaC	3186	Jansen loam, 6 to 11 percent slopes	3	56	0.28
JsC2	3188	Jansen sandy clay loam, 6 to 11 percent slopes, eroded	3	56	0.15
JMC	3190	Jansen-Meadin complex, 6 to 11 percent slopes, eroded	2	56	0.15
JMD	3191	Jansen-Meadin complex, 11 to 30 percent slopes, eroded	2	56	0.15
Mw	3246	Meadin loam, 2 to 3 percent slopes	2	56	0.32
	3247	Meadin loam, 6 to 30 percent slopes	2	56	0.37
Lb	3518	Lamo silty clay loam, occasionally flooded	5	86	0.37
Cs	3521	Cass fine sandy loam, occasionally flooded	3	86	0.20
	3545	Hobbs silt loam, channeled, frequently flooded	5	56	0.37
Sy	3553	Hobbs silt loam, frequently flooded	5	56	0.37
	3557	Hobbs silt loam, channeled, occasionally flooded	5	48	0.37
2Hb	3561	Hobbs silt loam, occasionally flooded	5	56	0.37
De	3726	Detroit silt loam, 0 to 1 percent slopes	5	48	0.37
MuB2	3770	Muir silt loam, 3 to 7 percent slopes, eroded	5	48	0.37
Mu	3775	Muir silt loam, rarely flooded	5	48	0.32
MuA	3776	Muir silt loam, 1 to 3 percent slopes	5	48	0.32
MQ	3779	Muir-Meadin complex, 0 to 3 percent slopes	2	56	0.24
	3800	Crete silt loam, 0 to 1 percent slopes, loess plains and breaks	5	48	0.37
	3801	Crete silt loam, 1 to 3 percent slopes, loess plains and breaks	5	48	0.37
	3802	Crete silty clay loam, 3 to 7 percent slopes, eroded, loess plains and breaks	5	48	0.37
Bu	3820	Butler silt loam, 0 to 1 percent slopes	3	48	0.37
Ce	3824	Crete silt loam, 0 to 1 percent slopes	5	48	0.37
CeA	3825	Crete silt loam, 1 to 3 percent slopes	5	48	0.37
	3829	Crete silty clay loam, 1 to 3 percent slopes	5	48	0.37
CrB2	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
	3833	Geary-Uly complex, 1 to 3 percent slopes	5	48	0.37
	3834	Geary silty clay loam, 3 to 11 percent slopes, severely eroded	4	48	0.37
	3837	Geary silty clay loam, 11 to 17 percent slopes, eroded	5	48	0.37
GeE	3839	Geary silty clay loam, 11 to 30 percent slopes	5	48	0.37
GeC2	3840	Geary silty clay loam, 7 to 11 percent slopes, eroded	5	48	0.37
GeE3	3841	Geary silty clay loam, 11 to 30 percent slopes, severely eroded	4	48	0.37
GeB2	3846	Geary silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.37
	3851	Geary-Hobbs silt loams, 0 to 3 percent slopes	5	48	0.37
	3857	Geary and Jansen soils, 7 to 11 percent slopes	3	48	0.37
	3860	Geary and Jansen soils, 11 to 30 percent slopes	3	48	0.37
	3861	Geary and Jansen soils, 7 to 11 percent slopes, eroded	5	48	0.37
	3862	Geary and Jansen soils, 7 to 11 percent slopes, severely eroded	2	48	0.37

THAYER COUNTY HIGHLY ERODIBLE LAND REPORT

Page 2

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
Hs	3864	Hastings silt loam, 0 to 1percent slopes	5	48	0.37
HsA	3866	Hastings silt loam, 1to 3 percent slopes	5	48	0.37
	3867	Hastings silty clay loam, 3 to 11percent slopes, severely eroded	5	48	0.32
HsB	3868	Hastings silt loam, 3 to 7 percent slopes	5	48	0.37
HsC	3869	Hastings silt loam, 7 to 11percent slopes	5	48	0.32
HtB2	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded	5	48	0.43
Ht	3873	Hastings silty clay loam, 0 to 1percent slopes	5	48	0.32
Sc	3914	Scott soils, frequently ponded	5	48	0.37
Fm	3952	Fillmore silt loam, frequently ponded	3	48	0.37
GeC3	3955	Geary silty clay loam, 7 to 11percent slopes, severely eroded	4	48	0.37
HtC2	3962	Hastings silty clay loam, 7 to 11percent slopes, eroded	5	48	0.43
Hs2	3969	Hastings soils, eroded	5	48	0.37
	4161	Kipson silt loam, 7 to 30 percent slopes	2	56	0.24
KpD	4162	Kipson soils, 11to 30 percent slopes	2	56	0.20
LcD3	4174	Lancaster loam, 7 to 16 percent slopes, severely eroded	3	48	0.24
	4175	Lancaster soils, 7 to 11percent slopes, severely eroded	3	86	0.10
	7552	Benfield silty clay loam, 6 to 11percent slopes, eroded	3	38	0.24
	8436	Cass loam, occasionally flooded	4	56	0.32
Cv	8441	Cass very fine sandy loam, rarely flooded	3	86	0.37
Sx	8493	Gothenburg loamy sand, frequently flooded	5	134	0.15
	8840	Hall silt loam, 0 to 1percent slopes	5	48	0.37
	8866	Hord silt loam, 0 to 1percent slopes, warm	5	48	0.37
INT	9970	Aquolls	5		
AED	9971	Arents, earthen dam			
MP	9975	Mine or quarry		0	
GP	9983	Gravel pit			
M-W	9986	Miscellaneous water, sewage lagoon			
W	9999	Water			

WEBSTER COUNTY HIGHLY ERODIBLE LAND REPORT

Page 1

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
	2304	McCook fine sandy loam, very rarely flooded	4	86	0.17
	2321	Inavale fine sand, 0 to 3 percent slopes	5	250	0.02
	2326	Inavale fine sandy loam, 0 to 3 percent slopes	5	86	0.24
In	2327	Inavale fine sandy loam, rarely flooded	5	86	0.28
Ig	2335	Inavale loamy fine sand, 0 to 3 percent slopes	5	134	0.20
Mc	2347	McCook silt loam, rarely flooded	5	86	0.37
	2360	Munjor fine sandy loam, rarely flooded	4	86	0.17
	2363	Munjor fine sandy loam, slightly wet variant	4	86	0.24
	2366	Munjor loamy fine sand, rarely flooded	4	134	0.24
	2375	Roxbury silt loam, rarely flooded	5	86	0.37
	2521	Coly-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
	2524	Coly silt loam, 3 to 11 percent slopes	5	86	0.43
	2537	Coly silt loam, 6 to 11 percent slopes	5	86	0.37
	2560	Coly-Uly-Hobbs silt loams, 3 to 60 percent slopes	5	86	0.43
	2570	Nuckolls and Holdrege silt loams, 3 to 6 percent slopes	5	48	0.37
	2571	Nuckolls and Holdrege silt loams, 6 to 11 percent slopes	5	48	0.37
	2583	Nuckolls-Hobbs complex, 11 to 30 percent slopes	5	48	0.37
	2667	Holdrege silt loam, 0 to 1 percent slopes	5	48	0.49
	2668	Holdrege silt loam, 1 to 3 percent slopes	5	48	0.49
	2669	Holdrege silt loam, 1 to 3 percent slopes, eroded	5	48	0.43
	2673	Holdrege silt loam, 0 to 1 percent slopes, plains and breaks	5	48	0.49
	2674	Holdrege silt loam, 1 to 3 percent slopes, plains and breaks	5	48	0.49
	2675	Holdrege silt loam, 3 to 7 percent slopes, plains and breaks	5	48	0.49
	2676	Holdrege silt loam, 3 to 7 percent slopes, eroded, plains and breaks	5	48	0.43
	2830	Uly-Coly silt loams, 11 to 30 percent slopes	5	48	0.32
	2834	Uly-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
	2902	Wakeen silt loam, 3 to 11 percent slopes	3	86	0.37
	2903	Wakeen silt loam, 3 to 11 percent slopes, eroded	3	86	0.37
	2904	Wakeen silt loam, 11 to 30 percent slopes	3	86	0.37
MdF	3247	Meadin loam, 6 to 30 percent slopes	2	56	0.37
HeB	3545	Hobbs silt loam, channeled, frequently flooded	5	56	0.37
	3553	Hobbs silt loam, frequently flooded	5	56	0.37
Hf	3561	Hobbs silt loam, occasionally flooded	5	56	0.37
	3572	Humbarger silt loam, very rarely flooded	4	48	0.37
Ma	3731	Massie silty clay loam, frequently ponded	3	48	
	3800	Crete silt loam, 0 to 1 percent slopes, loess plains and breaks	5	48	0.37
GfF	3833	Geary-Uly complex, 11 to 30 percent slopes	5	48	0.37
GfF3	3835	Geary silt loam, 11 to 30 percent slopes	5	48	0.37
GaD	3838	Geary silt loam, 7 to 11 percent slopes	5	48	0.37
GaC	3844	Geary silt loam, 3 to 7 percent slopes	5	48	0.37

WEBSTER COUNTY HIGHLY ERODIBLE LAND REPORT
Page 2

1990 Frozen Factors
C Factor = 0.3
R Factor = 150

Old Sym	New Sym	Soil Map Unit Name	T	I	K
	3851	Geary-Hobbs silt loams, 0 to 30 percent slopes	5	48	0.37
	3852	Geary and Hobbs soils	5	48	0.37
Hc	3864	Hastings silt loam, 0 to 1percent slopes	5	48	0.37
HcB	3866	Hastings silt loam, 1to 3 percent slopes	5	48	0.37
Fm	3952	Fillmore silt loam, frequently ponded	4	48	0.37
	4123	Holdrege and Uly soils, 3 to 7 percent slopes, eroded	5	48	0.37
	4138	Holdrege silt loam, 7 to 11percent slopes	5	48	0.49
	4147	Holdrege soils, 3 to 7 percent slopes, severely eroded	4	48	0.37
	4148	Holdrege soils, 7 to 11percent slopes, severly eroded	4	48	0.37
	4160	Kipson complex, 7 to 30 percent slopes	2	86	0.37
KsF	4161	Kipson silt loam, 7 to 30 percent slopes	2	56	0.24
	4168	Rock Outcrop-Kipson complex, 7 to 45 percent slopes		0	
	7261	Deroin soils, 3 to 6 percent slopes, severely eroded	4	48	0.32
	7262	Deroin soils, 6 to 11percent slopes, severely eroded	4	48	0.32
Gn	8470	Gibbon silt loam, occasionally flooded	5	86	0.32
	8473	Gibbon silty clay loam, rarely flooded	5	86	0.37
Ha	8840	Hall silt loam, 0 to 1percent slopes	5	48	0.37
Hr	8866	Hord silt loam, 0 to 1percent slopes, warm	5	48	0.37
HrB	8870	Hord silt loam, 1to 3 percent slopes	5	48	0.37
	9900	Fluvaquents, frequently flooded	5	0	0.24
	9903	Fluvaquents, sandy, frequently flooded	5	0	0.05
	9921	Ustorthents	5	0	0.05
	9975	Mine or quarry			
GP	9983	Gravel pit			
M-W	9986	Miscellaneous water, sewage lagoon			
W	9999	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. 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 unless cost share assistance is made available. 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
Critical 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.

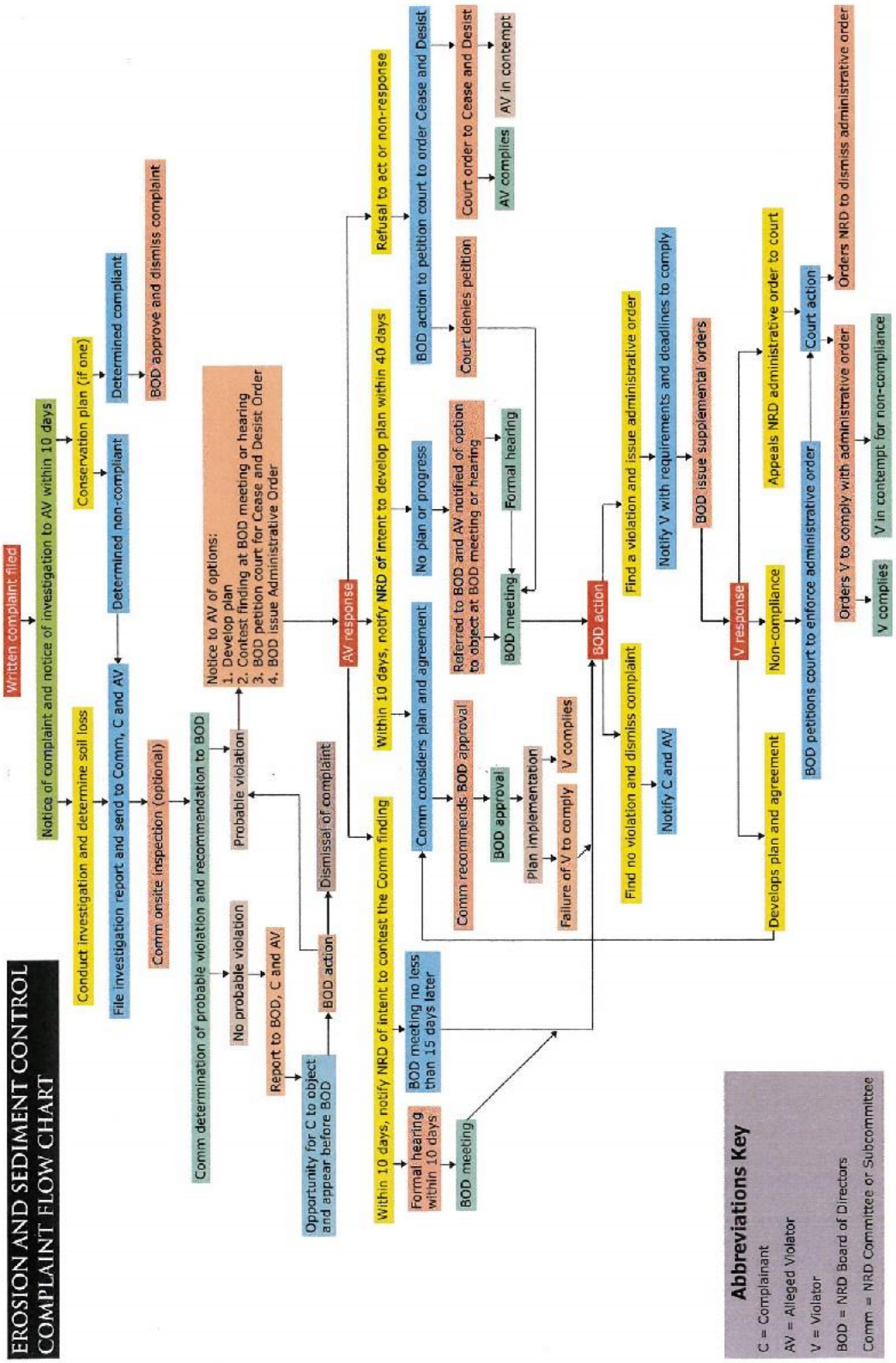
Conservation Cropping Systems
Conservation Tillage Systems
Contour Farming
Cover and Green Manure Crop
Crop Residue Management
Livestock Exclusion
Mulching
Pasture and Hayland Management
Contour Strip Cropping

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


EROSION AND SEDIMENT CONTROL COMPLAINT FLOW CHART
Written complaint filed
Notice of complaint and notice of investigation to AV within 10 days
Conduct investigation and determine soil loss
Conservation plan (if one)
File investigation report and send to Comm, C and AV
Determined non-compliant
Determined compliant
Comm onsite inspection (optional)
BOD approve and dismiss complaint
Comm determination of probable violation and recommendation to BOD
Notice to AV of options:
1. Develop plan
2. Contest finding at BOD meeting or hearing
3. BOD petition court for Cease and Desist Order
4. BOD issue Administrative Order
No probable violation
Probable violation
Report to BOD, C and AV
Opportunity for C to object and appear before BOD
BOD action
Dismissal of complaint
AV response
Refusal to act or non-response
Within 10 days, notify NRD of intent to contest the Comm finding
Within 10 days, notify NRD of intent to develop plan within 40 days
BOD action to petition court to order Cease and Desist
Court order to Cease and Desist
AV complies
AV in contempt
Comm considers plan and agreement
No plan or progress
Court denies petition
Formal hearing within 10 days
BOD meeting no less than 15 days later
Comm recommends BOD approval
Referred to BOD and AV notified of option to object at BOD meeting or hearing
Formal hearing
BOD meeting
BOD approval
Plan implementation
Failure of V to comply
V complies
BOD action
Find a violation and issue administrative order
Find no violation and dismiss complaint
Notify V with requirements and deadlines to comply
Notify C and AV
BOD issue supplemental orders
V response
Appeals NRD administrative order to court
Court action
Orders NRD to dismiss administrative order
Develops plan and agreement
Non-compliance
BOD petitions court to enforce administrative order
Orders V to comply with administrative order
V complies
V in contempt for non-compliance
Abbreviations Key
C = Complainant
AV = Alleged Violator
V = Violator
BOD = NRD Board of Directors
Comm = NRD Committee or Subcommittee