

**DRAINAGE REPAIR POLICY  
FOR  
COUNTY DRAINAGE SYSTEMS**

**Drainage System No. \_\_\_\_\_**

The following policy is intended to supplement Minnesota Statutes Chapter 103E in the Maintenance and Operation of Drainage Systems within Meeker County. This policy shall not apply to a "Joint Drainage System" (multi-County), unless specifically adopted by the Joint Drainage Authority. This policy is adopted by the Drainage Authority for Drainage System No. \_\_\_\_\_.

Most of the drainage systems in the County were established with the aide of federal wetlands grant monies, starting in 1890 and ending in 1925. Minnesota adopted its' drainage laws in the late 1800's, and with the exception of a few changes, most of these laws are still read as originally worded. Most of the original drainage work was done to add value to the land for agricultural purposes or to prevent diseases caused by mosquitoes.

**1. DEFINITIONS:**

**County Engineer:** The Meeker County Highway Engineer or his delegee.

**Drainage Authority Representative:** The member of the Drainage Authority whose County Commissioner District encompasses the portion of the Drainage System where repairs are contemplated pursuant to this policy.

**2. VEGETATION CONTROL:**

**Spraying Program:** The intent of vegetation control is primarily to prevent a growth of any type of tree or brush within the ditch itself or its right-of-way and to reduce future repair and maintenance costs. The County Engineer or Drainage Authority Representative may conduct an annual review of the County Ditch Systems. After review, the County Engineer will present a spraying program to the Drainage Authority for approval.

**Approved Chemicals:** On ditches selected by the County Engineer and approved by the Drainage Authority to be sprayed, only approved chemicals will be applied to eliminate trees and brush within the ditch bank and within the 16.5-foot right-of-way. If landowners spray any of their own ditch within the drainage system, they also must use only approved chemicals for such an application.

**Opt Out of Spraying Program:** Landowners who do not approve of chemical application shall notify the County Engineer in writing each year. Upon receipt of said notification, the County Engineer shall provide a "start date" after which the proposed spraying will be commenced. The landowner shall have the option to remove all trees and brush in the ditch right-of-way at their own expense. Upon completion, the landowner shall notify the County Engineer who shall then inspect the removal. If the removal is satisfactory, the County Engineer shall remove that portion of the ditch from the chemical spraying area. If the removal is not satisfactory, or if it is not completed by the "start date", chemical spray will be applied.

**Tree Growth:** Pursuant to Section 22.27 of the Meeker County Zoning Ordinance, no person shall plant trees within 75 feet of the center of the ditch bank unless: 1.) A property owner may plant trees to within 16.5 feet of the top the ditch within 100 feet of the ditch's inlet or outlet from a lake as measured from the lake ordinary high water level; 2.) A property owner receives approved by the Meeker County Zoning Department through a variance procedure.

**Tree Removal:** Trees that need to be removed from a drainage system will be removed in a manner that will reduce erosion. Trees will be piled, burned and buried when dry. Landowners may remove trees themselves for wood before the repair is started, at their own expense.

**Crop Damage:** During the course of the spraying operations and when crops are encountered, the Drainage Authority or its designee will use reasonable and prudent care in the operation of vehicles to minimize crop damage. However, any crop damage which occurs within the 16.5 foot designated right-of-way from the top of the ditch bank, is not eligible for reimbursement.

### 3. **DITCH CLEAN OUTS:**

**Repair Authorization:** Minor ditch cleaning (repairs costing less than \$10,000), commonly referred too as "dip outs," will be done on a request basis. These requests must be directed to the County Engineer or the Drainage Authority Representative in writing. The County Engineer may make arrangements for an appropriate contractor to be involved with the clean out, but shall not authorize such work until approved by the Drainage Authority Representative.

Repairs anticipated to cost more than \$10,000, shall be brought to the full Drainage Authority for approval. The repair work documentation shall become part of the drainage system permanent file.

**Scope of Work:** All clean out requests will be reviewed to determine the appropriate limits of work so that any work done will return the ditch to proper operating condition. That may mean that work may extend downstream and upstream of an area that a request for clean out occurs.

### 4. **TILE REPAIR:**

**Repair Authorization:** Minor tile repairs (repairs costing less than \$10,000) will be done on a request basis. These requests must be directed to the County Engineer or the Drainage Authority Representative in writing. The County Engineer may make arrangements for an appropriate contractor to be involved with the repair, but shall not authorize such work until approved by the Drainage Authority Representative.

Repairs anticipated to cost more than \$10,000, shall be brought to the full Drainage Authority for approval. The repair work documentation shall become part of the drainage system permanent file.

**Scope of Work:** All repair requests will be reviewed to determine the appropriate limits of work so that any work done will return the tile to proper operating condition. That may mean that work may extend downstream and upstream of an area that a request for repair occurs.

**5. DROP INLET PIPE STRUCTURES:**

The Drainage Authority will actively promote erosion control measures within its County Drainage System to prevent future costly ditch clean outs. Since the most common cause of erosion in ditches is a lack of adequate structures to control side inlet water flow into the ditch, the Drainage Authority will have drop inlet pipe structures installed in areas where it determines erosion is a problem as a maintenance procedure. The Drainage System shall be responsible for paying for the following expenses, which are necessary to install a drop inlet tile structure:

- a. Forty- (40) foot of pipe; dual wall plastic pipe preferred, the first twenty (20) feet being non-perforated.
- b. The blind tee.
- c. The marker flag.
- d. Five (5) foot perforated riser, which must extend one (1) foot about ground level. A six (6) inch diameter hole must be cut in the side of the ground above part of the riser, near the top to handle heavy rains.
- e. All necessary digging and dirt moving to install the drop inlet pipe structure.

All expenses associated with extending the horizontal pipe beyond forty- (40) feet will be paid by the landowner or the person requesting the extension.

Sites will be selected based on the requests by property owners and inspections of the ditches by the County Engineer or Drainage Authority Representative. Drop inlet pipe installation authorization will rest with the Ditch Authority Representative. The design of a drop inlet structure must be approved by the County Engineer and Drainage Authority Representative. If the installation of drop inlet pipe within a ditch is expected to exceed \$5,000.00, or a combination of a drop inlet pipe and dip out is expected to exceed \$10,000.00, the project, in order to proceed, shall be brought to the full Drainage Authority for their approval.

Attached to this Policy is a diagram of what a typical drop inlet pipe structure would look like.

A property owner who has a tile system that brings sub-surface water drainage into the Drainage System shall be solely responsible for installing and payment for an adequate inlet into the System.

**6. BEAVER CONTROL:**

**Trapping:** When beaver dams are reported or discovered when inspecting drainage systems, a trapper will be retained by the County Engineer or Drainage Authority Representative to remove the problem beaver. In order to be compensated, trappers will be responsible for providing the County Engineer with the number of beaver trapped along with their tails and where they were trapped. It is the trapper's responsibility to contact the DNR for appropriate approval for trapping beavers out-of-season. The Drainage Authority will annually set the rate of payment for the removal of beaver.

**Beaver Dams:** After the beaver have been removed, the County Engineer or Drainage Authority Representative may hire a contractor to remove the beaver dam(s) by mechanical means, if possible. If explosives are to be used by a contractor, the contractor must be approved by the County Sheriff and provide proper permits and insurance.

The Drainage Authority should participate in the State's nuisance control program for beavers if it is available.

## **7. GRASS BUFFER STRIPS:**

**Requirements:** A permanent grass buffer strip shall, wherever possible, be maintained between the top edges of the channel or ditch and the drainage system right of way boundary line for those systems not required to comply with Minn. Stat. 103E.021, up to the maximums required for Minn. Stat. 103E.021 compliance. For all other systems, Minn. Stat. 103E.021 shall be complied with including a permanent grass buffer strip being maintained on the banks and on a strip of land 16 ½ feet in width or the crown of the leveled spoil bank, whichever is greater, on each side of the channel or ditch. Grass buffer strips will be required on all systems when repairs are done that require re-sloping of the ditch banks within the system. All landowners are encouraged to contact the Farm Service Agency concerning the installation of grass buffer strips.

**Violations:** Landowners will be notified by the Drainage Authority if a violation of the buffer strip requirement is found. The landowner will be given 60 days to bring the area of non-compliance into compliance. If the area is not brought into compliance during this period, the Drainage Authority will proceed in a manner described in Minnesota Statute 103E.21 subd. 4 and 5.

**Agricultural Practices:** Agricultural practices such as plowing, tilling, pasturing cattle or other practices, which are not consistent with the purpose of the grass buffer strip, are not permitted. The grass buffer strip may be cut from time to time, but the cut hay must be removed. Grasses used to seed slopes and grass buffer strips will need to be resistant to sprays and chemicals used to control brush. Alfalfa seeding will not be allowed on the slopes or grass buffer strips.

## **8. APPROACHES AND CROSSINGS:**

**Field and Approach Crossings:** All new crossings or replacement of existing crossings must be requested in writing by the landowner and permitted by the Drainage Authority. The County Engineer will size the culvert needed to construct approaches and crossings needed by the landowner. The landowner will be responsible for the costs of all materials, installing the culvert and the associated dirt work. Private crossings shall be maintained by the landowner. The County Engineer will set the width, depth and size of the crossing and will inspect the crossing after installation.

**Irrigation Crossings:** Irrigation crossings will need to be of a bridge type that will not affect the flow of water, be installed in a manner that will not restrict repairs on a system, and be able to be removed easily. The use of multiple culverts, new or used, will not be allowed for the crossing of irrigation systems unless they are part of a present field crossing.

9. **ADDITIONAL DRAINAGE BY USING DITCHES AND NEW TILE:**

**Adding Drainage Within the Drainage System:** Landowners on the benefited property list may be allowed to drain into the system whether by open ditch or by tile, by obtaining the appropriate permit from the Drainage Authority. Detailed design plans and who the proposed contractor will be are required to be submitted as part of the permit process. When the work is completed a GPS map must be submitted to the Drainage Authority, which includes the size of the tile, number of feet of each sized tile, location of each sized tile and the location of drop pipes used.

**Adding Drainage from Outside the Drainage System:** Landowners wishing to bring water from property not included in the benefited property list, need to follow MN Statute 103E.401. The Drainage Authority will determine the fee and prorated assessment base for adding land to the drainage system. This may include outlet fees and assessments for benefits.

**Construction Methods:** Open ditches must have drop pipes (prefer steel) and enough elevation to drop water away from the slopes of the ditch. Plastic pipe will not be allowed either as exposed or drop inlet pipes. No tile outlets will be allowed for installation that is below the normal flow level water height of the ditch.

**Municipal Discharge:** Municipalities requesting to discharge into a drainage system must follow MN Statute 103E.411, must obtain a permit from the Drainage Authority and meet minimum discharge standards at all times. Continuous monitoring equipment should be installed at their expense.

10. **DRAINAGE SYSTEM IMPROVEMENTS:**

All improvements to a drainage system will follow MN Statute 103E.215 or .221. Signed petitions and bonds will be required. Petitioners or landowners of the improvements will be required to pay the costs of the improvements.

11. **REVIEW OF BENEFITS:**

Prior to recommending any project herein, the County Engineer shall review the benefits for the affected drainage system and determine whether the project is cost effective for the most recent determination of property benefited. If the County Engineer determines that the benefits need to be reviewed and subsequently re-determined, he shall include a preliminary recommendation to the Drainage Authority prior to any work being performed.

12. **REMOVAL OF PROPERTY OR ABANDONMENT:**

Removal of property or abandonment of any section of ditch or tile will follow MN Statutes 103E.805 or 103E.811.

**13. DRAINAGE SYSTEM REPAIR FUNDS:**

According to MN Statute, 103E.735, the Drainage Authority may establish a maintenance repair fund for each of the drainage systems. The repair fund for each of the drainage systems may not exceed 20% of the most recent benefit determination or \$40,000 which ever is greater. Assessments will be pro-rated according to the determination of benefits. The County Engineer may recommend to the Drainage Authority which systems should have repair funds and how much the yearly assessments should be. If land has drainage system benefits when it is sold and is assessed into the drainage system, the purchaser, even if it is the State or Federal government, should be responsible for paying future assessments.

**14. MISCELLANEOUS DRAINAGE SYSTEM ISSUES:**

**Cattle:** Cattle will not be allowed to be in a drainage ditch except to cross at approved locations. If cattle must cross a ditch, the preferred method is to have them cross at an installed crossing to prevent the cattle from entering the water. Cattle may be watered from a ditch but the access to the amount of ditch must be controlled. Cattle will be allowed to graze along a ditch for short periods of time to remove vegetation and then must be removed. No trampling of the ditch banks will be allowed. Owners wishing to graze the spoils and slopes must contact the County Engineer to work out a rotation for the cattle to be allowed to graze.

**Manure:** Manure shall be spread a minimum of 100 feet and any stock piling of manure shall be a minimum of 300 feet from crown of the spoils, unless County regulations require a greater distance.

**Feedlot Runoff:** Feedlot runoff should be prevented from entering the ditch system either by direct or indirect methods.

**Fences:** No fence may be installed closer than 50 feet from the crown of the spoils. When ditch repair is performed, gates may be installed in the property line fences next to each side of the ditch to allow for the access of equipment used for repairing the ditch.

**Erosion-Pollution:** If erosion areas are discovered, proper measures shall be taken to correct the problem. If erosion is discovered due to water entering the system over the spoil's bank, then drop inlet pipe structures should be installed to drop the water in the bottom of the ditch. See Section 5 for Drop Inlet Pipe Structures.

No septic system will be allowed to discharge into a drainage system.

**Obstructions:** Any obstructions to be installed in a system must have proper engineering, have a hearing as provided by State Statute and be permitted by the Drainage Authority.

Deer stands and other facilities used for recreation should not be placed closer than 33 feet from the crown of the ditch.

**Rock and Debris:** Rocks or debris will not be allowed to be dumped into or next to a drainage ditch. Landowners should be encouraged to stockpile rock when removing from fields for later use as riprap.

**Wetlands:** Wetland areas that are part of a drainage system should be used for temporary storage for large rain events. These areas should be allowed to drain out naturally so storage is available for future storm events.

**Landowner Rights:** None of these policies are intended to allow for additional access to landowners property which is not already allowed by law. Contractor or Drainage Authority personnel should contact landowners before entering property if possible.

Adopted this   20<sup>th</sup>   day of   May  , 2003.

Revised this   18<sup>th</sup>   day of   September  , 2007.

/s/ Barbara Loch

**MEEKER COUNTY AUDITOR**