

MEEKER COUNTY, MINNESOTA

BOARD OF COMMISSIONERS

Work Session Agenda

September 24, 2019

8:30 Meeting Called to Order

- Amendments to the Agenda

Barb Loch, County Auditor

- Ditch Policy Update

9:15 T21 Discussion

**DRAINAGE POLICY
FOR
MEEKER COUNTY PUBLIC DRAINAGE SYSTEMS**

The following policy is intended to supplement Minnesota Statutes Chapter 103E in the Maintenance and Operation of Public Drainage Systems within Meeker County. This policy shall not apply to a "Joint Drainage System" (multi-County), unless specifically adopted by a Joint Drainage Authority.

1. DEFINITIONS:

The definitions found in Minn. Stat. § 103E.005 are used in this document.

Approved Herbicides: Herbicides approved by the County Drainage Inspector and complying with all local, state, and federal restrictions.

County Drainage Inspector: Person appointed by the Drainage Authority, pursuant to Minn. Stat. § 103E.065, to inspect and administer the drainage systems of the Drainage Authority (i.e. the Meeker County Drainage Inspector or his delegee).

2. PUBLIC DRAINAGE SYSTEM INSPECTIONS:

The County Drainage Inspector shall inspect the public drainage systems under its jurisdiction on a regular basis as required by law. The County Drainage Inspector shall also respond to any requests for inspection and examine the public drainage system as requested.

3. VEGETATION CONTROL:

Spraying Program: The purpose of vegetation control is to prevent the growth of any type of tree or brush within the Drainage System or its right-of-way and to reduce future repair and maintenance costs. The County Drainage Inspector may conduct an annual review of the Drainage Systems to devise a spraying program. After review, the County Drainage Inspector may select areas within the Drainage Systems for spraying and create a reasonable spraying program to control vegetation. The County Drainage Inspector shall have discretion to select areas for spraying. Upon request, the County Drainage Inspector will provide a copy of the spraying program areas selected for spraying annually.

Approved Herbicides: Only Aquatic Approved Herbicides shall be used within the ditch bank and 16.5-foot right-of-way, unless with prior approval from the County Drainage Inspector. Anyone desiring to spray any area within the Drainage System right-of-way must first obtain permission from the County Drainage Inspector and use only Approved Herbicides.

Opt Out of Spraying Program: Property owners wanting to opt out of chemical spraying must notify the County Drainage Inspector in writing each year on or before March 1st. Upon receipt of said written notification, the County Drainage Inspector shall provide a "spray start

date" to the property owner who provided written notice. The property owner providing notice shall have the option to remove all trees and brush in the ditch right-of-way at their own expense. Upon completion, the property owner shall notify the County Drainage Inspector who shall then inspect the removal. If the removal of vegetation is satisfactory, as determined by the County Drainage Inspector, the County Drainage Inspector may remove the applicable area from that year's designated area for chemical spraying. If the removal is not satisfactory, or if not completed by the "spray start date," chemical spray will be applied as determined necessary and proper by the County Drainage Inspector.

Tree Growth: Pursuant to Section 22.28 of the Meeker County Land Development Ordinances, no person shall plant trees within 75 feet from the centerline of any county or judicial ditch unless: 1.) A property owner may plant trees to within 16.5 feet of the top the open ditch within 100 feet of the open ditch's inlet or outlet from a lake as measured from the lake ordinary high-water level; 2.) A property owner receives authorization from the Meeker County Zoning Department and Ditch Authority through a variance procedure.

No trees are to be planted over or within 75 feet of a Drainage System tile.

Tree Removal: Trees that need to be removed from a Drainage System will be removed in a manner that will reduce erosion to the extent possible. Trees will be piled, burned, and buried when dry, unless an alternative method of disposal is deemed appropriate by the County Drainage Inspector. Property owners may remove trees themselves at their own expense, but only after receiving permission from the County Drainage Inspector.

Crop Damage: During the course of the spraying and whenever crops are encountered, the Drainage Authority or its designee will use reasonable and prudent care in the operation of vehicles to minimize crop damage. The Drainage Authority may provide reasonable reimbursement for crop damage. Any crop damage which occurs within the 16.5-foot designated right-of-way from the top of the ditch bank shall not be eligible for reimbursement.

4. DRAINAGE SYSTEM REPAIRS:

Repairs anticipated to cost more than \$10,000, shall be brought to the full Drainage Authority for consideration and approval. All repair work documentation shall become part of the drainage system permanent file. Damage payments will be calculated and payment made to the current property owner of record at a rate approved by the County Drainage Authority.

Minor Repair Authorization: Minor repairs costing less than \$10,000 may be done on a request basis or at the discretion of the County Drainage Inspector. Minor repairs include, but are not limited to, ditch cleaning (commonly referred to locally as "dip outs") and tile repairs. Minor repair requests must be directed to the County Drainage Inspector in writing. The County Drainage Inspector may authorize the repair and arrange for an appropriate contractor to be involved with the repair.

Scope of Work: All minor repairs will be reviewed by the County Drainage Inspector to determine the appropriate limits of work so that any work done will return the ditch to proper

operating condition. Work may extend downstream and upstream of an area where a repair is requested, if necessary.

5. DROP INLET PIPE STRUCTURES:

The Drainage Authority will actively promote erosion control measures within its County Drainage System. The most common cause of erosion in ditches is a lack of adequate structures to control side inlet water flow into the ditch; therefore, the Drainage Authority will install drop inlet pipe structures where it determines necessary. When installing a drop inlet pipe structure, the Drainage System shall typically pay the following expenses:

- a. Forty (40) feet of pipe; dual wall plastic pipe preferred, the first twenty (20) feet adjacent to the ditch being non-perforated;
- b. The blind tee;
- c. The marker flags;
- d. Trash guard on perforated riser;
- e. Rodent guard on outlet pipe;
- f. A perforated riser, which must extend one (1) foot about ground level. A six (6) inch diameter hole must be cut in 2 sides of the riser just above ground level, to handle heavy rains; and
- g. All necessary excavation to install the drop inlet pipe structure.

All expenses associated with extending the horizontal pipe beyond forty (40) feet shall be paid by the property owner and/or the person requesting the extension.

The County Drainage Inspector shall select sites for drop inlet pipe structures based on requests received and inspections by the County Drainage Inspector. Drop inlet pipe installation authorization will rest with the County Drainage Inspector. The design of a drop inlet pipe structure must be approved by the County Drainage Inspector. If the combination of a drop inlet pipe and minor repair is expected to exceed \$10,000.00, the project shall be brought to the full Drainage Authority for consideration and approval.

Attached to this Policy as **Exhibit A** is a diagram depicting a typical drop inlet pipe structure.

6. BEAVER CONTROL:

Trapping: When beaver or beaver dams are reported or discovered, a trapper will be retained by the County Drainage Inspector to remove the problem beaver. To receive compensation, trappers must demonstrate the number of beavers trapped and the location where trapped. The retained trapper may provide dated photographic evidence to the County Drainage Inspector of sufficient detail to prove the beaver were trapped. It is the trapper's responsibility to contact the Minnesota Department of Natural Resources or other government agency for appropriate approval for trapping beavers out-of-season. The Drainage Authority will set the rate of payment for removal of beaver.

Beaver Dams: After the beaver have been removed, the County Drainage Inspector may hire a contractor to remove the beaver dam(s) by mechanical means, if possible. If explosives are to be used, the contractor and removal process must be approved by the County Sheriff or other government agency and all proper permits and insurance must be obtained.

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

7. GRASS BUFFER STRIPS:

Compliance with Minn. Stat. §§ 103E.021 and 103F.48: The Drainage Authority encourages the use of grass buffer strips beyond the 16.5 feet buffer established under Minn. Stat. § 103E.021 or 103F.48. Any violations of §§ 103E.021 or 103F.48 shall be handled in accordance with the applicable law.

Meeker County Buffer Ordinance: Property owners must comply with the Meeker County Buffer Ordinance which includes requirements for public drainage systems established under Minn. Stat. chapter 103E. The Ordinance applies to all waters shown on the "Buffer-protection map" as defined in Minn. Stat. § 103F.48

8. PRIVATE APPROACHES AND CROSSINGS:

The installation, repair, or replacement of a private approach or crossing requires written approval from the Drainage Authority before any work is done. The County Drainage Inspector will set the size of culvert needed to construct approaches and crossings and the width, depth, and size of the crossing. The County Drainage Inspector will inspect the approach or crossing after installation. The property owner will be responsible for the costs of all materials, installing the culvert and the associated dirt work. Private crossings shall be maintained by the property owner.

THE STATUTE SAYS THE DRAINAGE AUTHORITY **MAY MAINTAIN, REPAIR, OR REBUILD PRIVATE CROSSINGS ON SYSTEMS ESTABLISHED PRIOR TO 1947. IF THE SYSTEM WAS ESTABLISHED AFTER 1947 THE DA MUST MAINTAIN PRIVATE CROSSINGS.**

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: Owners of property listed as benefited by the drainage system may be allowed to drain into the system whether by open ditch or by tile by obtaining written approval from the Drainage Authority. Detailed design plans and name of the proposed contractor must be submitted as part of the approval 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: Property owners wishing to use an established drainage system as an outlet must 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 and enough elevation to drop water away from the slopes of the ditch. No tile outlets may be installed below the normal flow level water height of the ditch. Construction must be approved by the County Drainage Inspector or Drainage Authority as appropriate.

Municipal Discharge: Municipalities requesting to use a drainage system as an outlet must follow MN Statute 103E.411, must obtain approval from the Drainage Authority, and must meet minimum discharge standards at all times. Continuous monitoring equipment should be installed at the expense of the municipality.

10. PRIVATE WORK ON THE PUBLIC DRAINAGE SYSTEM

Small repairs may be completed by private land owners at their own expense with prior approval from the County Drainage Inspector. Some repairs completed by private property owners may be eligible for reimbursement from the Drainage Authority on a case by case basis. To be eligible for reimbursement the property owner must have prior approval from the County Drainage Inspector, an initial estimate, and proof of actual cost for the work completed. Repairs and/or costs deemed unreasonable by the County Drainage Inspector will not be reimbursed. Damages caused by private work on the public drainage system will be repaired at the expense of the individual responsible for the damage.

11. DRAINAGE SYSTEM IMPROVEMENTS:

All improvements to a drainage system shall follow Minnesota Chapter 103E.

12. REVIEW OF BENEFITS:

Prior to recommending any project herein, the County Drainage Inspector 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 Drainage Inspector 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.

13. REMOVAL OF PROPERTY, ABANDONMENT OR PARTIAL ABANDONMENT:

Removal of Property: If property within the benefited area of a drainage system no longer benefits from the drainage system, the owner of the benefited property may petition the drainage authority to have the property removed from the drainage system in accordance with Minn. Stat. § 103E.805.

Abandonment of Drainage System: If an owner of benefited property believes that a drainage system, or part of a drainage system, is no longer of public benefit and utility serves any useful purpose to any property or the general public or has ceased to function to the point that restoration is no longer feasible, the landowner may file a petition to abandon the entire drainage system, or part of the drainage system, in accordance with Minn. Stat. §§ 103E.811 or 103E.806, respectively.

14. DRAINAGE SYSTEM REPAIR FUNDS:

Minn. Stat. § 103E.735 allows the Drainage Authority to establish a repair fund for each separate drainage system account. The repair fund for each drainage system may not exceed 20% of the most recent benefit determination or \$100,000 whichever is greater. Assessments for a repair fund shall be pro-rated according to the determined benefits. The County Drainage Inspector, or other county staff, may recommend to the Drainage Authority which systems should have repair funds and the amount of any annual repair fund assessment. 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.

15. 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 utilize an elevated crossing to prevent the cattle from entering the water. Cattle may be watered from a ditch; however, access to the ditch must be reasonably controlled to avoid causing any damage to the ditch. 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 Drainage Inspector to work out an approved rotation for the cattle to be allowed to graze. Any damage to a ditch caused by cattle shall be the responsibility of the owner of the cattle.

Manure: Manure shall be spread a minimum of 100 feet from the crown of the spoils, and any stockpiling of manure shall be a minimum of 300 feet from the crown of the spoils, unless greater distances are imposed by other authority.

Feedlot Runoff: Feedlot runoff shall be prevented from entering the public drainage system.

Fences: No fence may be installed closer than 16.5 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 or pollution issues are discovered, proper measures shall be taken to correct the problem to the extent possible. If erosion is discovered due to water entering the system over the spoil's bank, then drop inlet pipe structures should be installed in accordance with section 5 herein.

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

Obstructions: Drainage systems must not be obstructed unless a responsible party can show why an obstruction is necessary. Any existing or proposed obstruction in a drainage system must be properly engineered and must be permitted by the Drainage Authority only after a hearing has been conducted in accordance with Minn. Stat. § 103E.075. The Drainage Authority must be notified of any temporary obstruction that will or may disrupt flow and drainage for more than forty-eight (48) hours.

Deer Stands: Deer stands and other facilities used for recreation should not be placed closer than 16.5 feet from the crown of the ditch. The Drainage Authority will remove any structure blocking maintenance to the ditch, regardless of its distance from the ditch.

Rock and Debris: Rocks or debris are prohibited within the in-slope of a drainage ditch. Debris shall not be dumped within 16.5 feet of the crown of the ditch. Property owners are encouraged to stockpile rock when removing from fields for later use as riprap. Rock piles, however, must not impede the drainage authority's ability to maintain the drainage system.

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 to allow for future storage.

Property Owner Rights: None of these policies are intended to allow for additional access to property owner's property which is not already allowed by law. If possible, Contractors or Drainage Authority personnel should contact property owners before entering property.

Adopted the 20th day of May, 2003.

First revised on the 18th day of September, 2007.

This second revision is adopted by the Meeker County Drainage Authority on the _____ day of _____, 2019.

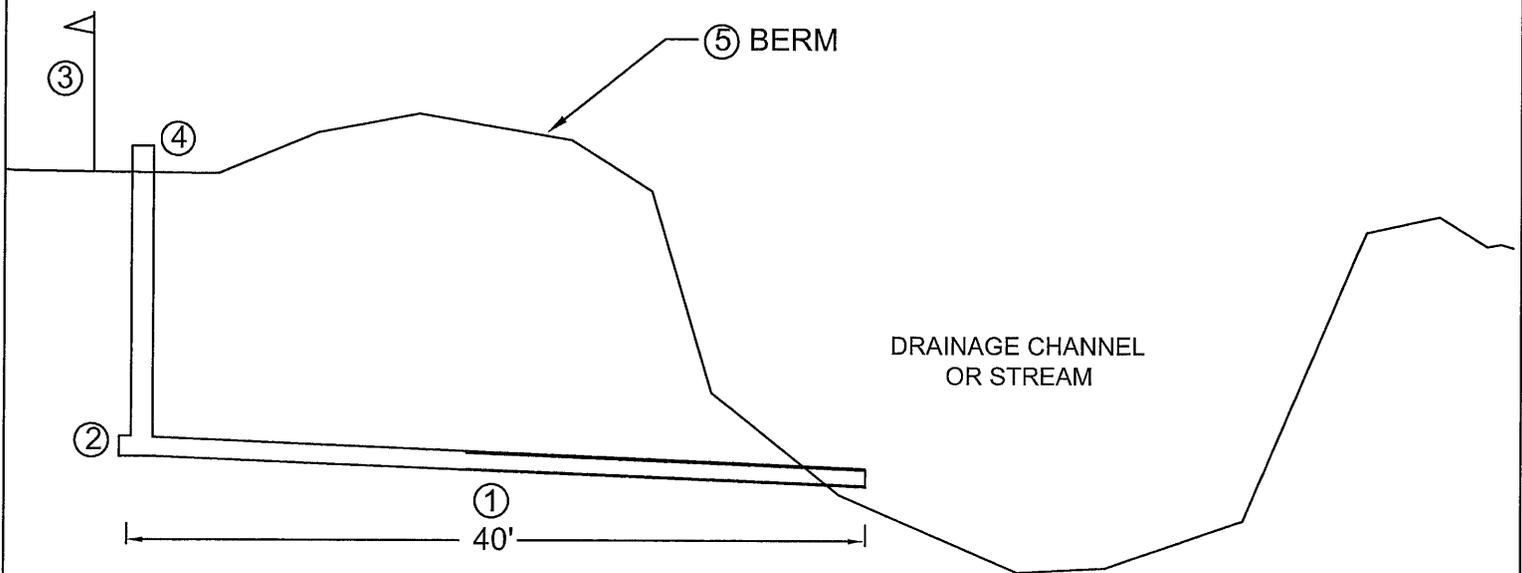
This Drainage Policy for Meeker County Drainage Systems is updated, revised, and effective this _____ day of _____, 2019.

/s/ Barbara Loch

MEEKER COUNTY AUDITOR

MEEKER COUNTY DRAINAGE DITCH DROP INLET PIPE TYPICAL

- ① Forty foot of dual wall plastic pipe, or equivalent. The twenty feet preceding the outlet end must be non perforated pipe. Outlet required to have a rodent guard.
All necessary excavation to install. Discharge point shall be near the top of the ordinary water level.
- ② Blind tee
- ③ Marker flag with minimum exposed height of five feet.
- ④ A perforated riser which must extend one foot above the ground level with trash guard.
Two six inch diameter holes must be cut in the sides of the riser to begin three inches above ground level, to handle heavy rains. Surround inlet with $1\frac{1}{2}$ " rock (approx. 6" deep by 6' diameter) underlaid with non-woven geotextile. All necessary excavation to install.
- ⑤ Berm elevation to be at least six inches higher than top of perforated riser.



**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 20th day of May , 2003.

Revised this 18th day of September , 2007.

/s/ Barbara Loch

MEEKER COUNTY AUDITOR