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INTRODUCTION

Public drainage in Minnesota is governed by Minnesota Statutes Section 103E, the Drainage Code. The Drainage Code has existed in its current form for over a century – with minor amendments over the years to keep up with other changes in the legal landscape. Throughout the development of public drainage in Minnesota, various processes have developed to ensure that the management and administration of public drainage systems is in conformity with the Drainage Code. See "*Understanding Minnesota Public Drainage Law*" is attached as Appendix ___, by permission of the Association of Minnesota Counties. <Option: attach Understanding Minnesota Drainage Law as an Exhibit ***get AMC permission***>

The purpose of this manual is to provide information for the proper inspection and maintenance of public drainage systems. Inspection and maintenance is the responsibility of the Drainage Authority, but is often carried out by a Drainage Inspector, hired to advise Drainage Authority regarding proper management of the public drainage systems. This manual provides suggestions about the duties of drainage inspectors, recommended best practices for the administration of public drainage, and templates for forms and policies to be used as starting points for drainage inspectors and drainage authorities. This manual is based on information gathered from drainage inspectors throughout the state, as well as Minnesota laws relating to drainage and drainage maintenance. This manual should be used a reference for how drainage inspection and maintenance <u>must</u> be carried out.

The sample documents and policies contained within this manual take a conservative approach to the administration of drainage systems. Some drainage authorities have created policies to streamline the administrative process. These alternative policies, and the issues they may raise, will be identified throughout the manual.

SECTION 1. DRAINAGE INSPECTOR DUTIES & RESPONSIBILITIES

The position of Drainage Inspector is authorized for drainage authorities where the aggregate cost of drainage systems is more than \$50,000. As stated in the introduction, the Drainage Inspector advises the Drainage Authority. Before outlining the duties and responsibilities of drainage inspectors, a fundamental discussion of drainage authorities is necessary.

What are drainage authorities? Drainage authorities are typically the county board of the county in which a drainage system is located. Where a drainage system exists within two or more counties, a joint county drainage authority is required. The joint drainage authority is made up of a total of five members appointed from the various county boards at a joint meeting of various county boards.¹ The make up of the joint drainage authority is typically based upon the area of the joint drainage system existing in each affected county. The Drainage Authority might also be a Watershed District Board, where one exists.

State law grants drainage authorities the power to construct, improve, and maintain drainage systems and related control structures. Drainage authorities may perform such work within municipalities. State law lays out specific procedure and requirements that drainage authorities must follow when undertaking any work. The most significant requirement is that drainage authorities must inspect and maintain the public drainage systems within their jurisdiction. Maintenance of a drainage system includes the vegetative strips along a ditch. This requirement is found in Minnesota Statute 103E.705 Subd.1 and has been affirmed by Minnesota Courts.

¹ It is not typical that the county board's will meet jointly in a single location to establish joint drainage authorities. Rather, affected counties typically adopt joint resolutions, in separate meetings, which designate membership in the various joint drainage authority boards required by the counties. Initial Draft 2/13/2009

To assist in the performance of its statutory obligations to the drainage systems, many drainage authorities hire drainage inspectors. While drainage inspectors have specific statutory duties, the reality is that drainage inspectors are also delegated many of the drainage authority's responsibilities— including the day-to-day administration of drainage systems. The limits of this delegation are not absolutely clear, but it appears that drainage authorities may delegate nearly all responsibilities other than decision-making responsibilities required by law. Because the drainage code places significant administrative responsibilities for drainage systems on the County Auditor, the Auditor (or watershed district administrator) typically coordinates the activities of the Drainage inspector.

The following are specific requirements of drainage inspectors imposed by state law. Other responsibilities typically delegated by the drainage authority are discussed throughout this manual.

- (1) The county drainage inspector must inspect the drainage systems within the county on a regular basis. An inspection committee may be substituted for an inspector where the aggregate drainage system in the county has been constructed for less than \$50,000-which is uncommon. [*Minnesota Statute 103E.065*]
- (2) The ditch inspector must inspect open ditches at a minimum of every 5 years if no violations have been found. If violations have been found, the ditch must be inspected every year until one year after violations have been corrected. [*Minnesota Statute 103E.705 Subd. 1*]
- (3) The inspection process includes the inspection of vegetative strips along a ditch. If a violation is found, the inspector must send the property owner a notice that states:
 - (A) The date the ditch was inspected; Initial Draft 2/13/2009

- (B) The person making the inspection;
- (C) That spoil banks are spread in a manner consistent with the plan and function of the drainage system and that the drainage system has acquired a permanent strip of perennial vegetation, according to section 103E.021;
- (D) The violations of Section 103E.021 that have been identified;
- (E) The measures that must be taken by the property owner to comply with section 103E.021 and the date when the property must be in compliance; and
- (F) That if the property owner does not comply by the date specified, the drainage authority will perform the work necessary to bring the area into compliance with section 103E.021 and charge the cost of the work to the property owner.
 [*Minnesota Statute 103E.705 Subd. 2*] See Appendix A for a sample Notice of Violation.
- (4) If a property owner does not bring an area into compliance with section 103E.021, as provided in the compliance notice, the drainage inspector must notify the drainage authority. [*Minnesota Statute 103E.705 Subd. 2*]
- (5) For each drainage system that the board designates and requires the drainage inspector to examine, the drainage inspector must prepare a written drainage inspection report and submit it to the board after examining a drainage system. The report must designate portions of the drainage system and the permanent strips of vegetation that need repair or maintenance and the location and nature of the necessary repair or maintenance. The board must consider the drainage inspection report at its next meeting and may repair all or any part of the drainage system. [*Minnesota Statute 103E.705 Subd. 3*]

(6) If drainage report indicates that maintenance or repairs of grass strips are necessary, and the report is approved by the drainage authority, the maintenance or repairs must be made in compliance with section 103E.021. [*Minnesota Statute 103E.705 Subd. 4*] See Section 4 for detailed information on repairs.

SECTION 2. RELEVANT DRAINAGE STATUTORY PROVISIONS

The following is a list and short summary of relevant sections of Minnesota Statutes

Chapter 103E-- the drainage portion of Minnesota's Water Law, referred to as the drainage code.

An in-depth discussion of each of the provisions is included in later topical sections. These laws

are current as of the publication date. The Legislature, however, may revise the law or create

new provisions. The current version of Minnesota Law can be viewed at

https://www.revisor.leg.state.mn.us/pubs/. It is suggested that drainage inspectors work with

their legal counsel to ensure compliance with statutory requirements.

*Minnesota Statute 103E.021 requires vegetative buffer strips along ditches.

*Minnesota Statute 103E.061 grants the drainage authority a <u>right of entry</u> to survey perform certain work

*Minnesota Statute 103E.065 authorizes drainage inspectors to examine drainage systems.

*Minnesota Statute 103E.067 requires annual reporting on the status of vegetative buffer strips

*Minnesota Statute 103E.075 addresses obstructions of drainage systems.

*Minnesota Statute 103E.081 enumerates <u>crimes related to drainage systems</u> and the associated penalties.

*Minnesota Statute 103E.701 outlines the <u>drainage authority's power</u> to undertake certain repairs on drainage systems.

*Minnesota Statute 103E.705 provides the procedures that the drainage authority must follow when **<u>undertaking repairs</u>** to a drainage system.

*Minnesota Statute 103E.715 outlines the **procedure for making repairs** that are requested by petition.

*Minnesota Statute 103E.725 identifies those fees and expenses that qualify as "costs of repair."

*Minnesota Statute 103E.728 provides a mechanism for apportioning costs of repair.

*Minnesota Statute 103E.735 grants the drainage authority the right to establish a <u>drainage</u> <u>system repair fund</u>.

Initial Draft 2/13/2009 SECTION 3. REGULAR MAINTENANCE PROCEDURE AND FORMS

As stated in Section 1, drainage authorities are required to maintain the public drainage systems within their jurisdiction The key components of maintenance are inspections, inspection reports, and requests or petitions for repair.

Inspection Schedule

The drainage authority should develop an inspection schedule for each segment of its drainage system. Open ditches must be inspected at least every 5 years. However, if violations have been found, the ditch must be inspected every year until one year after violations have been corrected. Other components of a drainage system are merely required to be inspected "on a regular basis." This is a vague directive, so the drainage authority should define the "regular basis" at which other components are inspected.

A prudent schedule should consist of a multi-year cycle. See Appendix B for an Inspection Schedule template. Each open ditch, or portion of a ditch, should be assigned a year– 1 through 5. Each component of the drainage system, other than open ditches, should also be assigned a year. For simplicity, drainage system components should be tracked on the same multi-year cycle as open ditches. For example, an inspection schedule might appear as follows:

YEAR	INSPECTION ITEMS	VIOLATIONS
1	JD 1 (N of Hwy 4) + all culverts and crossings	Yes: fixed in 2009, annual inspection until 2010
<u>2</u>	JD 1 (S of Hwy 4)+ all culverts and crossings	Yes: fixed in 2008, annual inspection until 2009
<u>3</u>	JD 3 & JD 4 + all culverts and crossings	NO
<u>4</u>	JD 5 + all culverts and crossings	NO
<u>5</u>	JD 2 + all culverts and crossings; all public drain tiles	NO

In setting the inspection schedule it is important to remember to allocate time for potential annual inspections of ditches found to have violations. It is also important to be as specific as possible when listing inspection items. See also Section 12 Record Keeping.

In addition to regularly scheduled inspections, drainage inspectors perform inspections based on property complaints. In order to ensure that complaints are appropriately and timely acted upon, the drainage authority should include a provision for complaint inspections in its overall drainage policy. See Appendix C Model Drainage Policy.

Inspection Reports

The ditch inspector must file a written report to the Drainage Authority after every inspection. The inspection report is an important record of the conditions encountered by the drainage inspector. The report is the basis on which the drainage authority orders repairs or pursues violations. It is critical that the inspection report be comprehensive, detailed, and uniform to the greatest extent possible. To foster these characteristics the drainage authority, in its drainage policy, should identify each component of the drainage system that should be examined by the inspector. These might include bank slope, ditch depth, the presence of obstructions, drain tile outlets, crossings and culverts, the presence of trees along the bank, and the integrity of the buffer strip including the presence of noxious weeds. The drainage policy should also list other items to be included in the inspection report such as photos, drawings, GPS locations, written descriptions of observations, and necessary repairs to fix identified problems. See Inspection Report Template in Appendix D and Model Drainage Policy in Appendix C. See also Section 12 Record Keeping.

Requests for Repairs

The most common methods for initiating a repair are either by informal request to the drainage authority or upon report and recommendation of the drainage inspector. Typically, the informal request triggers an inspection to confirm the existence of conditions to warrant repair. In both instances, the Drainage Authority initiates the repair without a petition in accordance with Minn. Stat. 103E.705.

Upon receiving the inspection report, the Drainage Authority may order a repair identified in the report without bids, so long as the cost of repairs for one year will be less than the greater of \$100,000.00 or \$1,000.00 per mile of open ditch in the ditch system. These limits do not apply to repairs and construction after a disaster. For larger repairs and maintenance activities, the drainage authority must follow additional procedures set forth in the drainage code.

Initiation of repairs for joint drainage systems should follow the same procedures outlined above. However, often joint drainage authorities are either not formed or are not prepared to make decisions because the interests or motivation of the various counties are in conflict. In such cases, repairs may be difficult.²

Though not a best practice, some joint authorities have adopted a drainage policy which authorizes each county on the joint drainage system to order repairs not to exceed a specific dollar amount per occurrence and maximum dollar amount per joint drainage system per calendar year. Any repairs costing in excess of these caps require additional authorization of a majority of the joint drainage authority. This policy balances efficiency and expeditious repairs

 $^{^2}$ As a best practice, it is recommended that all actions related to the joint drainage system be brought to the joint drainage authority. This can be accomplished by the establishment of standing meetings, at least once annually, where the joint drainage authority will take up the management of the joint drainage system or systems. The drainage inspectors and auditors of the various counties should coordinate to determine the processes to be followed and the manner of resolving conflict. A lesser practice is described in the text. Initial Draft 2/13/2009

with full review of the joint drainage authority and is authorized by Minnesota Statute 103E.711. See Appendix E Request for Maintenance Template.

Petition for Repairs

The second method of initiating a repair is by petition to the Drainage Authority. The petition may be signed by anyone with an interest in the drainage facility. Minnesota Statute 103E.715 Subd. 1. If the Drainage Authority determines that the drainage system needs repair, the engineer will examine the drainage system and make a report. Once the report is received from the engineer, a public hearing must be held with mailed notices to the petitioners as well as owners of property and political subdivisions likely to be affected by the repair. The notice must be mailed at least ten days before the public hearing. Minn. Stat. 103E.715, Subd. 4 restricts the Drainage Authority's ability to reject the petition if at least 26% of landowners sign the repair petition. Minn. Stat. 103E.715, Subd. 6 requires the appointment of viewers to assess damages and benefits if certain repairs are necessary. See Appendix F Petition for Repair Template.

Minor Clean Outs

Though not a best practice, some drainage authorities have enacted a policy to allow minor repairs (often referred to as "minor clean outs" or "minor maintenance") without full board approval. These minor clean outs are not explicitly allowed by law. Therefore, if a drainage authority is going to allow minor clean outs with authorization of less than the majority of the drainage authority, the authority should enact a comprehensive policy. The policy should expressly state the limits for the clean outs that may be authorized by less than the full drainage authority. These limits should identity the type of minor clean outs and maximum cost for the minor clean outs that may be authorized by less than the full drainage

Initial Draft 2/13/2009 authorities are advised to consult their legal counsel and proceed with caution when enacting such a policy.³

Bridges, Culverts, and Crossings

Special attention must be paid to the installation and repair of bridges and culverts. State law requires that adequate hydraulic capacity be maintenance throughout the drainage system. Minnesota Statute 103E.721. The determination of hydraulic capacity should be performed by a qualified processional. If a drainage system is expanded, and requires that the hydraulic capacity of a bridge or culvert be expanded, the drainage authority may require the construction or installation of a bridge or culvert with increased capacity. The costs may be collected as an assessment for benefits.

Often, a drainage authority will receive a request for the installation, maintenance, or expansion of a private crossing on the drainage system. Such a request should trigger review to determine the necessity of the work and the impact on the drainage system. Crossings and approaches currently existing on drainage systems may or may not be part of the drainage system, and the drainage authority may or may not have maintenance responsibility for the crossing. Upon a request to maintain or re-construct an existing crossing, the drainage must determine whether the crossing was established as part of the drainage system. If the drainage authority determines that the crossing is part of the drainage system, it must repair or replace the crossing, or, if practical, abandon the crossing and consolidate it with another or order the establishment of a road.

³ As a best practice it is recommended that the drainage authority consult with its legal and engineering advisors to determine the impact of various maintenance activities. Several permitting and other legal requirements can be triggered even by minor repairs.

Some drainage authorities have developed a permitting program for private crossings. If the drainage authority determines that the crossing is not part of the drainage system, it may require an application for a permit for a new crossing. If a permitting program is established, the drainage authority should regulate the size and type of culverts used for field crossings. Some authorities go so far as to provide the appropriate culvert at the property owner's expense. The width, depth and size of all crossings should be determined by the authority's engineer. A postconstruction inspection should be required to ensure that the crossing is installed to the drainage authority's specifications. All private crossing permits should clearly state that private crossings are not part of the drainage system. Some authorities take the prudent measure of requiring the property owner to execute and record a notice that acknowledges that the crossing is not part of the drainage system and maintenance for the crossing is the sole responsibility of the property owner.

Private crossings may complicate drainage system maintenance. Drainage authorities should therefore require that new private crossing be permitted as an option of last resort. Property owners should be required to first attempt to obtain easements over neighboring property. Every effort should be made to consolidate crossings when possible.

SECTION 4. REPAIR FUNDS

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Drainage authorities may establish a repair fund to pay for repair costs. A repair fund should be thought of reserve fund, from which money for minor repairs can be drawn from. All properties benefitted by the drainage system may be assessed in order to finance the fund. Assessments are made in proportion to the benefits allocated to each property. Minnesota Statute 103E.735 places limits on the size of a repair fund. The fund may not exceed 20 percent of the assessed benefits of the drainage system or \$40,000, whichever is greater. This means that repairs exceeding the limit will need to be assessed. Assessments for a repair, or to replenish the repair fund, may be collected in equal annual installments and in accordance with Minnesota Statute 103E.731. If administration of a drainage system is taken over by a water management authority, the repair fund is also transferred to the water management authority.

There is a typically a connection between improvements and repairs, which may allow use of repair fund money for a portion of an improvement project. The drainage authority, however, should proceed with caution when using repair funds on an improvement project. Often times, an improvement project serves to (a) restore the system to a functioning state, and (b) enhance the system beyond its original state. The restoration of the original function is a repair, for which repair funds may be used.

The reality is that improvement projects proceed as one cohesive project, not as a phased project where the repair is done first, and then the improvement is made. Since the repair costs can be assessed to all properties benefitted by the system, and improvement costs can only be assessed against properties benefitted by the improvement, individual findings of repair cost and benefits and improvement costs and benefits must be made. The determination of repair cost and benefit might only be performed in the abstract, but it serves to what portion of the project may Initial Draft 2/13/2009

be assessed against all properties. The costs-benefit analysis for a project involving both repairs

and improvements is as follows:

Repair Portion of Project

- 1. Determine costs to perform just the repair, without regard to other costs of the project (this may be somewhat theoretical).
- 2. Determine benefits that result from the repair.
- 3. Repair benefits must exceed repair costs.

Improvement Portion of Project

- 1. Determine total cost of the project (including repair costs from above).
- 2. Determine total benefits of the project (including repair benefits from above)
- 3. Total benefits must exceed total costs.

Allocation for Assessment

- 1. Repair costs are assessed to <u>all</u> properties or taken from the repair fund.
- 2. Improvement costs (total project costs repair costs) are assessed top the properties benefitted by the improvement.

This determination of benefits is logical because the benefits assessed to all properties flow from

the repair of the system, whether the repair is a discernable component of the project or not. See

In the Matter of the Petition for Improvement of Murray County Ditch No. 34, 615 N.W.2d 40

(Minn. 2000).

Initial Draft 2/13/2009 SECTION 5. REDETERMINATION OF BENEFITS

Drainage Benefits

The benefits roll for a drainage system determines which lands will pay for future drainage repairs. Each land pays its proportionate share of the drainage repair costs. When a repair is performed, the repair costs are spread across the drainage system in proportion to the benefits established on the rolls.

When a drainage system is first established, the drainage authority creates a permanent roll of benefits. The benefits are measured by a market value increase which results from having a drainage system in place. On some old drainage systems, these benefits remain from the original establishment proceedings in the early part of the century. The benefits determined 70 or more years ago will often be out of date for a variety of reasons. The market values used by the drainage authority will reflect old land values. Today's land values, and the corresponding increments, are dozens of times higher than they were when the drainage system was first established. In addition, new lands may have been altered or improved to make use of or place a burden on the system. This happens in part because modern farming practices require more efficient use of the land, and because the economy of farming favors placing large tracts under production in order to increase yields. Landowners, relying on the availability of the drainage ditch, are able to alter the volume and rate of surface waters leaving their property in a manner which places additional burden on downstream landowners and, ultimately, on the ditch.

If the drainage authority was restricted to ancient benefit rolls and limited benefitted areas, it would not be able to account for the new burdens placed on the drainage system or changes in land use – and unfairness would result. The drainage code permits the drainage

authority to redetermine benefits so that all benefitting lands will carry their fair share of the burden they place upon the ditch. Minn. Stat. § 103E.351, see also § 103E. 741.

Redetermination of Benefits

If the drainage authority determines that the original benefits or damages determined in a drainage proceeding do not reflect the reasonable present day land values, or that the benefitted or damaged areas have changed, the drainage authority may appoint three viewers to redetermine and report the benefits and damages and the benefitted and damaged areas. Minn. Stat. \$103E.351, Subd. 1. The redetermined benefits and damages and the current benefitted and damaged properties must be used in place of the original benefits and damages and benefitted and damaged properties in all subsequent proceedings related to the drainage system Minn. Stat. \$103E.351 Subd. 3. A person who objects to a redetermination of benefits and damages and benefitted and damaged areas may appeal from the order confirming the benefits and damages and benefitted and damaged areas under Section 103E.091. Minn. Stat. \$103E.351 Subd. 4.

The drainage code treats a redetermination of benefits, and directs the viewers to determine benefits and damages, as if a new drainage system were being constructed. The viewers, with or without an engineer, shall determine the benefits and damages to all property affected by the proposed drainage project and make a viewers report. Minn. Stat. § 103E.311. The viewers determine the amount of benefits to all property within the area affected by the drainage system whether the property is benefitted immediately by construction of the proposed drainage project, the proposed drainage project can become an outlet for drainage, the project makes an outlet more accessible, or the project otherwise directly benefits the property. Minn. Stat. § 103E.315 Subd. 5(a). The benefits may be based on: (1) an increase in the current market value of the property as a result of constructing the project; (2) an increase in the Initial Draft 2/13/2009

Initial Draft 2/13/2009 potential for agricultural production as a result of constructing the project; or (3) an increased

value of the property as a result of the potential different land use.

Within the area affected by the drainage system, the viewers may assess outlet benefits on: (1) property that is responsible for increased sedimentation in downstream areas of the watershed; and (2) property that is responsible for increased drainage system maintenance or increased drainage system capacity because the natural drainage on the property has been altered or modified to accelerate the drainage of water from the property. Minn. Stat. § 103E.315 Subd. 6(c).

Property Splits

A significant source of complication for benefit allocation arises when property is subdivided or platted. Before property that is encumbered by a drainage lien can be subdivided, an apportionment of the lien value must be filed with the county recorder. Minnesota Statutes 103E.625. Once a lien is satisfied though, state law does not specifically require that an apportionment of benefits be filed. If benefits are not allocated prior to subdividing or platting, allocation future repairs costs becomes difficult and contentious. For example, assume a 640 acre parcel was allocated an original benefit amount for the original establishment amount. The Section is then subdivided into sixteen 40 acre parcels without reallocating the original benefit amount to the sixteen different parcels. Then two of the 40 acre tracts are platted into 60 residential lots, and four of the other 40 acre tracts are subdivided into five and ten acre tracts all without a reallocation of the original benefits. Years after these subdivisions, and decades after the original assessment of benefits, major repairs of the drainage system are required. Allocating the repairs costs becomes a nightmare. Absent voluntary agreement by all of the property owners, a redetermination of benefits becomes necessary. Initial Draft 2/13/2009

To avoid this mess, some county auditors have made an agreement with the county recorder to require a benefit allocation prior to recording any subdivision or plat. If the subdividing party cannot determine how to allocate the benefits, a hearing can be requested and the drainage authority will determine the allocation. This is a prudent measure that prevents future benefit allocation issues and should be included in the authority's drainage policy.

Past subdivisions that have not had benefits reallocated, still pose a significant problem though. If a voluntary agreement can be reached by the various property owners, this can be recorded and will resolve the issue. See Appendix H for a sample assessment division template. This template can be used for an allocation required by county recorders or voluntarily obtained allocations for previously subdivided properties.

Initial Draft 2/13/2009 SECTION 6. PERMITS FOR DRAINAGE SYSTEM PROJECTS

Drainage authorities, and their contractors, are subject to the same regulatory requirements as private parties. This means that drainage system projects may require federal, state, or local permits before the project can proceed. These various regulatory schemes often overlap, so projects typically require multiple permits from multiple permitting authorities. The following is a summary of permits that are typically required. This summary is not intended to be a complete list of potentially required permits.

WCA Wetland Permit

The Wetland Conservation Act ("WCA") is a Minnesota law that was enacted with a goal of no-net-loss of wetlands in Minnesota. In simple terms, WCA first requires anyone proposing to drain, fill, or excavate a wetland to try to avoid disturbing the wetland. Second, impacts to wetland must be minimized. Finally, impacted wetlands must be replaced in accordance with an approved replacement plan. An impact is any loss of wetland acreage, wetland function, or wetland value. Certain wetland activities are exempt from the act, allowing projects with minimal impact or projects located on land where certain pre-established land uses are present to proceed without regulation.

There are a number of exemptions from the requirements of WCA that might apply to drainage system projects. Exemptions, however, may not be combined to increase the amount of the exemption. Minnesota Rule 8420.0122 Subp. 2 provides two exemptions specific to drainage: (1) a replacement plan is not required for draining of type 1 wetlands, or up to five acres of type 2 or type 6 wetlands, in an unincorporated area on land that has been assessed drainage benefits for a public drainage system, with certain caveats; (2) a replacement plan is not required for draining, excavating, or filling of wetlands that have been in existence for more than Initial Draft 2/13/2009

25 years, resulting from maintenance and repair of existing public drainage systems conducted or authorized by a public drainage authority—unless the wetland is a type 3, 4, or 5.

Minnesota Rule 8420.0122 Subp. 5 provides an exemption for incidental wetlands that are created solely as a result of: beaver dam construction; blockage of culverts through roadways maintained by a public or private entity; or actions by public or private entities that were taken for a purpose other than creating the wetland.

De minimis exemptions are provided by Minnesota Rule 8420.0122 Subp. 9. A statewide de minimis exemption is allowed for: (a) 100 square feet of impacts to type 3, 4, 5, 8, and white cedar and tamarack wetlands outside of the building setback zone, as defined in the local shoreland management ordinance; or (b) 20 square feet of wetland, regardless of type, inside the building setback zone, as defined in the local shoreland management ordinance. Additional de minimis exemptions exist, depending upon the location in state and type of wetland being impacted.

Public Water Work Permit

Any time a drainage system project impacts a public water, as defined by Minnesota Statute 103G.055 Subd. 15, a Public Waters Work Permit is necessary. For purpose of the permit, "impact" means to by affect the course, current, or cross section below the ordinary high water level in public waters and public waters wetlands.

A Public Waters Work Permit is not required for maintenance, the installation of drain tile, and drainage system repairs if certain conditions are met.

Maintenance:

(1) The outlet has been maintained and has been functioning within the last 5 years;

- (2) The maintenance work does not alter the original course, current or cross-section of the lake, wetland or streambed; and
- (3) The removed debris must be placed outside of public waters and wetlands and may require local government approval.

Installation of agricultural drain tile outlets:

- The outlet involves no construction of an open ditch and is not intended to drain a public water or wetland;
- (2) The bank is restored to the natural slope;
- (3) The installation does not require channelization, dredging or filling; and
- (4) Except for the tile, no permanent structure is placed in the lake, wetland or streambed.

Drainage system repairs:

- The public drainage system is lawfully established under Minnesota Statutes, chapters 103D and 103E;
- (2) The repair is sponsored by the public drainage authority;
- (3) The project is consistent with the definition of a repair in Minnesota Statutes, 103E.701, Subd. 1;
- (4) The project does not affect significant fish and wildlife habitat, as determined by DNR; and the project does not substantially affect public waters.

The local DNR Area Hydrologist should be contacted to determine whether a permit is needed. Application forms and guidance documents are available on the Minnesota DNR website at: http://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/index.html.

If a public water wetland is going to be impacted, a replacement wetland may be required. Minnesota Statute 103G.221 generally provides that public water wetlands may not be drained unless a public waters work permit for the work includes the replacement of the drained wetlands. If a public waters work permit is required, wetland replacement is generally required.

Minnesota Statute 103G.245 Subd. 2 creates an exception to the permit requirements of 103G.221 for (1) maintenance and repair of drainage systems where the public water wetland is an altered natural watercourses that is part of the drainage system, or (2) a drainage project, established under chapter 103E, that does not substantially affect public waters. The first exemption is straight-forward, but the second exemption requires interpretation. "Substantially affect" is undefined in the statute, rules, and court cases. Section 103G.2241 Subd. 9 provides a number de minimis instances where a wetland (not a public waters wetland) may be drained without replacement. Public waters wetlands are less regulated than WCA wetlands under 103G, so it seems logical that the draining of a public waters wetland in the same manner as the de minimis exceptions of 103G.2241 Subd. 9 would not be considered to "substantially affect" a public waters wetland. Beyond these limits, a court or agency will probably look to the specific facts of the drainage activity, characteristics and size of the public waters wetland to be drained, and the public waters wetland's public value.

If a drainage authority is exempt from the permit requirements of 103G.221, Minnesota Statute 103E.011 Subd. 2. requires that the authority receive permission from the Commissioner of Natural Resources before draining a public waters wetland. For the repair of a drainage Initial Draft 2/13/2009

system, state law requires the Commissioner of Natural Resources to approve the depth of the repair work. No other approval is required by statute or rule. If the repair of a pubic drainage system will drain a public waters wetland, and the repair work is exempt from the permit requirements of 103G.221, the repair is exempt from all wetland replacement requirements.

Clean Water Act and Section 404 Permits

Section 404 of the Clean Water Act ("CWA") regulates the placing of fill material in waters and wetland. The meaning of "fill" is defined very broadly and includes the sidecasting dredged material into waters or wetlands and mechanized land clearing or grading activities in waters or wetlands. The CWA is a federal law administered by the U.S. Army Corps of Engineers. Any activity involving the filling of waters or wetlands requires a permit. Permits are evaluated on whether the activity serves a public or private need, balanced with the options for avoidance (alternatives that do not involve fill), minimization (least damaging practice), and mitigation (compensate for, or replacement of unavoidable impacts).

The CWA contains several exemptions relevant to drainage. The discharge of fill, incidental to construction, maintaining, and connecting upland drainage facilities to waters of the United States, generally does not require a permit. 33 CFR 323.4. Emergencies that require the removal of sandbars, gravel bars, or other similar blockages formed by flood which close or constrict previously existing drainage systems are exempt. The removal, however, must not be an improvement to the drainage system as it existed prior to the blockage. The removal must be performed within one year of discovery of such blockages in order to be exempt. No exemption exists for drainage activities that cause conversion of a wetland to a non-wetland. Also, any canal, ditch, dike or other waterway or structure which drains or significantly modifies a stream,

lake, swamp, bog or any other wetland or aquatic area constituting waters of the United States

requires a permit.

NPDES Permit Any time one or more acres of land is disturbed as part of a construction project, a National Pollutant Discharge Elimination System ("NPDES") Permit is required. For drainage systems, routine ditch maintenance is exempt from the NPDES requirement if less than 5 acres of land are disturbed as part of the maintenance project. To qualify for the exemption, the project must: disturb less than 5 acres; not alter the original line, slope, hydraulic capacity, or purpose of the ditch; comply with state and federal wetland regulations; and use appropriate BMPs to control erosion and sedimentation. (4)Typically, the spoil area and the area over which machinery will travel, are the areas used to determine how much land is disturbed. Routine maintenance may include the removal of ediment: the removal of tress, beaver dams, or debris: and repairing minor erosion problems along banks. See MPCA Guidance Document "Drainage Ditch http://www.pca.state.mn.us/publications/wq-strm2-17.pdf for additional information.

The NPDES permit for a project is either a "General" permit or an "Individual" permit. Nearly drainage projects will fall within the "General" permit category. This means that a drainage authority may seek coverage under the general permit issued to the State for certain construction activities. Only very large-scale projects will require an "Individual" permit.

To apply for an NPDES permit, the drainage authority must complete an application, which may be done online. Application forms and guidance documents can be found on the Initial Draft 2/13/2009 **Comment [RN1]:** We need to look hard at this section. Notwithstanding that the MPCA has established permitting requirements for activities disturbing more than 5 acres, I can not find any authority for the MPCA to apply that standard to ditch maintenance. In fact, both in the CWA regulations and in the MPCA's NPDES regulations, ditch maintenance appears to be exempt by incorporation of section 404(f) of the CWA (33 USC section 1344(f)).

MPCA's website at: <u>http://www.pca.state.mn.us/water/stormwater/stormwater-c.html</u>. Any time the drainage authority is required to obtain a NPDES Permit, the authority must also create a storm water pollution prevention plan ("SWPPP") that explains how the impacts of storm water runoff from the project will be minimized. See the attached SWPPP template in Appendix G. The SWPPP must be created prior to applying for an NPDES Permit. To apply for a NPDES Permit, the drainage authority must complete an application form, include a copy of the SWPPP Plan, and pay a permit fee. The application is lengthy and requires detailed information about the project and local hydrology, however, the detailed instructions provided by the MPCA provide clear guidance for completion of the application.

Local Regulations

Besides WCA Wetland Permits, local authorities may require other permits. Zoning ordinances are a common local regulation that may be triggered by a drainage system project. Other special districts such as watershed districts may have specific rules that require notice or approval by a governing entity. Drainage authorities should consult with other local units of government before proceeding with a project.

Initial Draft 2/13/2009 SECTION 7. GOVERNMENT PROGRAMS AND DRAINAGE

Drainage systems typically run through agricultural lands, which are often enrolled in various government programs. The government programs may impact how drainage authorities perform maintenance and repairs on drainage systems. The following are common government programs that may impact a drainage system. A brief description of the program and how it may affect public drainage system is provided.

CRP and Other Federal Programs

The Conservation Reserve Program ("CRP") is a federal program administered by the U.S. Department of Agriculture ("USDA"). The program operates through long terms leases, often referred to as "CRP contracts," with farmers. Farmers are paid to take crop land out of production and establish natural vegetative cover. The duration of the leases ranges from ten to fifteen years. CRP can affect drainage systems in several ways. If a new system is constructed through lands enrolled in CRP, money may need to be paid to USDA if land is removed from the program in violation of the contract between the property owner and USDA. Restoration work or the repayment of money may also be necessary when drainage system maintenance interferes with the vegetative cover required under the program. Drainage authorities are advised to consult with the USDA prior to impacting CRP lands.

The Conservation Reserve Enhancement Program ("CREP"), Wetland Reserves Program ("WRP"), Environmental Quality Incentives Program ("EQIP"), Wildlife Habitat Improvement Program ("WHIP") are other federal programs funded by the federal farm bill and administered by the USDA. These programs create the same potential problems to drainage systems as CRP.

Property Tax Relief Programs

Minnesota has a number of property tax relief programs, which may impact the administration of drainage systems. The most prevalent program is the Green Acres tax deferral program established for certain agricultural property. See Minnesota Statute 273.111. The program allows farmers to obtain a deferment from higher property valuations on productive agricultural land that is a result of development pressures. The program caps the taxable value for a property below the market value for the property. This difference in value creates deferred property taxes. In the event that a property enrolled in the program is no longer put to an agricultural use, the County Assessor can go back three years and recapture the deferred taxes. In 2008, the Green Acres law was significantly revised. These revisions include changes to the eligibility, payback provisions, and valuation guidelines. There has been significant backlash to the 2008 revisions, and it is anticipated that some or all of the 2008 revisions will be reversed in the 2009 legislative session.

The Native Prairies Tax Exemption Program creates a taxable value of \$0 for native prairie parcels and there is no look back provision. The Native Prairies Tax Exemption Program is administered by the DNR in cooperation with the county tax assessor. The Wetland Tax Exemption Program is similar to the Native Prairies Exemption, except wetlands rather than prairies are eligible for a total tax exemption. The Minnesota Agricultural Land Preservation Program and Metropolitan Agricultural Preserves Program provide farmers a property tax credit in exchange for a restrictive covenant requiring the property owner to maintain the agricultural use of the property. Both programs are administered by the Minnesota Department of Agriculture in cooperation with the county tax assessor.

Property tax relief programs may indirectly affect drainage system administration. If a new system is constructed through lands enrolled in these programs, property owners may incur Initial Draft 2/13/2009

significant contractual penalties or increases in taxes. Drainage authorities are advised to consult with the taxing authorities and agencies administering these programs prior to impacting CRP lands.

Conservation Easements and Cost Share Programs

Conservation easements are an integral part of conservation programs. Reinvest in Minnesota Reserve Program ("RIM") is the major governmental conservation program in Minnesota. Under RIM, property owners are paid grant conservation easements that retire environmentally important lands from agricultural uses. The two major components of RIM are the Native Prairie Bank Program and the Permanent Wetland Preserves Program ("PWP"). The Native Prairie Bank Program offers both permanent and limited duration easements and is administered by the DNR. PWP easements are permanent and are administered by SWCDs.

In addition to governmental programs, non-profit entities also hold conservation easements. The Nature Conservancy and The Minnesota Land Trust are the key non-profit easement holders in Minnesota. Conservation easements may also be found around developments when required by the zoning authority. Unlike CRP or property tax relief programs that create contractual rights, conservation easements create property rights. This may complicate the creation of a new drainage system or expanding an existing system, by adding a party, other than the fee title property owner, to the matter.

Initial Draft 2/13/2009 SECTION 8. BEAVERS AND BEAVER DAMS

Beavers can be a significant threat to the proper functioning of drainage systems. Drainage authorities should have a policy for dealing with beavers, including the removal of dams and dens. Minnesota state law regulates the taking of beavers and the removal of dams and dens. In addition, a drainage authority should incorporate some practical guidelines when dealing with

Minnesota Statute 97B.655 allows the taking of beavers that are causing damage. That statue states in relevant part, "Owners and occupants may take certain animals. A person may take... beaver on land owned or occupied by the person where the animal is causing damage. The person may take the animal without a license and in any manner except by poison, or artificial lights in the closed season.... a person that kills... beaver under this subdivision must notify a conservation officer or employee of the Wildlife Division within 24 hours after the animal is killed." Minnesota Statute 97A.401, subdivision 5, authorizes the DNR issues permits "to remove or destroy their dens, nests, eggs, houses, or dams for the purpose of preventing or reducing damage or injury to people, property, agricultural crops, or other interests." Drainage authorities are not exempt from these requirements.

In some instances, the DNR may abate a beaver dam that impairs a drainage system. Minnesota Statute 97B.665 states, "When a drainage watercourse is impaired by a beaver dam, the commissioner shall take action to remove the impairment, if: (1) the county board unanimously consents; (2) the landowner approves; (3) the commissioner agrees; and (4) the action is financially feasible." The DNR's action may include destruction or alteration of beaver dams and removal of beaver. If a beaver dam causes a threat to personal safety or a serious threat

to damage property, and a person cannot obtain consent, an action may be filed district court. The court may order the DNR to take action to abate the drainage impairment.

BWSR is required to create a program to assist in dealing with beaver problems. See Minnesota Statute 103E.950. The program is to provide grants for the control of beaver that are causing damage to public waters, roads, and ditches and adjacent private property. The grants may only be made to joint powers boards (as established under Minnesota Statute 461.59), SWCDs, and Indian tribal governments. In order for this program to be utilized by drainage authorities, they must be part of joint powers entity, seek money from the local SWCD, or work with an Indian tribe. The grants may provide up to 50 percent of the costs of implementing a beaver damage control program by a joint powers board.

Beaver dam and den removal should be done with caution. Removal can be a source of potentially significant liability. If explosives are used to remove a dam, significant regulations apply. See Minnesota Statute 299F.73 et seq. and Minnesota Rules 7500.0100 et seq. Anyone using explosives must be bonded and licensed by the state. Additional information can be found at <u>http://www.dps.state.mn.us/fmarshal/Explosives.htm</u>. Removal work will typically also require permits. See Section 6 Permits for Drainage System Projects.

A drainage authority should address beaver control in its drainage policy. The policy needs to address DNR permitting, establish a procedure for paying trappers, and provide guidance on the removal of dams and dens. The policy should identify mitigation steps, such as re-vegetation of buffer strips that are required after dam removal. To potentially defray beaver control costs, the policy should direct the authority to participate in beaver control programs if available.

Initial Draft 2/13/2009 SECTION 9. PESTICIDE APPLICATION

The use of pesticides is an important aspect of the maintenance of the vegetative strips along drainage systems. Pesticides are necessary to control noxious weeds and trees. The use of pesticides, however, raises some issues that must be addressed by drainage authorities and their drainage inspectors.

Any application of pesticide to a public drainage system must be performed by a person certified by the Minnesota Department of Agriculture. This applies to contracted pesticide applicators <u>and</u> applicators who are employed by the drainage authority. Use of certified applicators is required by law anytime a "restricted use product" is being applied– this encompasses most common pesticides. Use of certified applicators also helps to ensure that the applicator is properly trained in selecting the appropriate pesticide, proper application of pesticides, and worker protection measures. Certification also requires that the applicator is insured or bonded, which provides some level of protection to the drainage authority.

In addition to state certification, applicators should explicitly agree to comply with Minnesota Statutes 18B, Minnesota Rules 1505, and all other laws and regulations. Specifically, the applicator should agree to apply the pesticide only in accordance with its label and in a manner that does not endanger the public, crops, and livestock or wildlife. The applicator should also agree not to fill containers directly from a public water or rinse containers in a public water.

For additional information, the Minnesota Department of Agriculture maintains a website that provides fact sheets on worker protection, pesticide application BMPs, and licensing and certification requirements. The website can be found at:

http://www.mda.state.mn.us/licensing/pestfert/pesticideapplicator.htm

SECTION 10. DIFFERENCES BETWEEN COUNTIES AND WATERSHED DISTRICTS

{STAKEHOLDER INPUT NEEDED}

WATERSHED DISTRICT STATUTE PROVISION

103D.621 DRAINAGE IMPROVEMENTS.

Subdivision 1.Findings.

The legislature finds that because of urban growth and development in the metropolitan area problems arise for the improvement and repair of drainage systems which were originally established for the benefit of land used for agriculture. The procedure for improvement and repair of drainage systems now in the metropolitan area should be simplified to more adequately and economically improve and repair drainage systems.

Subd. 2.Definitions.

(a) The terms in this section have the meanings given them in this subdivision.

(b) "Drainage system" has the meaning given in section 103E.005, subdivision 12.

(c) "Watershed district" means any watershed district established under this chapter, wholly or partially in a metropolitan county.

(d) "Metropolitan county" means any one of the following counties: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, or Washington.

(e) "Metropolitan area" means the combined area of the metropolitan counties.

Subd. 3.Drainage improvements.

With the concurrence of the governing bodies of the cities and the town boards of the towns where the drainage system is located, the managers of a watershed district where there is a drainage system may improve and repair any drainage system transferred to the watershed district under section 103D.625 by conforming to sections 429.031; 429.041, subdivisions 1 and 2; 429.051; 429.061; and 429.071.

Subd. 4.Alternative power.

With the concurrence of the governing bodies of the cities and the town boards of the towns where the drainage system is located, the managers may improve and repair a drainage system under the power granted to them in this chapter notwithstanding any provision of chapter 103E.

Subd. 5.Appeal.

A person aggrieved by an order for improvement or repair by the managers or by an assessment may appeal as provided in sections 103D.535 and 103D.541.

103D.625 DRAINAGE SYSTEMS IN WATERSHED DISTRICT.
Initial Draft 2/13/2009 Subdivision 1.Watershed district assumption of drainage system.

(a) The managers shall take over a joint county or county drainage system within the watershed district and the right to repair and maintain the drainage system if directed by a joint county drainage authority or a county board. The transfer may be initiated by:

(1) the joint county drainage authority or county board;

(2) a petition from a person interested in the drainage system; or

(3) the managers.

(b) The transfer may not be made until the joint county drainage authority or county board has held a hearing on the transfer. Notice of the proposed transfer with the time and place of hearing must be given by two weeks' published notice in a legal newspaper of general circulation in the area where the transfer is to occur. All interested persons may appear and be heard.

(c) After the hearing, the joint county drainage authority or county board shall order the watershed district to take over the joint county or county drainage system, unless it appears that the takeover would not serve the purpose of this chapter and would not be for the public welfare or be in the public interest.

Subd. 2.Drainage systems are works of watershed district.

A joint county or county drainage system that is taken over in whole or in part is part of the works of the watershed district to the extent taken over.

Subd. 3.Procedure for repair or improvement.

After the transfer is ordered, all proceedings for repair and maintenance must conform to chapter 103E, except for repairs and maintenance done pursuant to section 103D.621, subdivision 4.

Subd. 4.Construction or improvement.

Construction of new drainage systems or improvements of existing drainage systems in the watershed district must be initiated by filing a petition with the managers. The proceedings for the construction or improvement of drainage systems in the watershed district must conform to chapter 103E, except for repairs and maintenance done pursuant to section 103D.621, subdivision 4.

DRAINAGE CODE PROVISIONS

103E.735 Subd 2 repair funds are transferred with drainage system

103E.812 Outlines process for transferring drainage system to water management authority, often times a watershed district.

 \rightarrow only after expiration of assessment lien

→petition

 \rightarrow transfer hearing

 \rightarrow cost paid by transferee

 \rightarrow existing rights unaffected by transfer; effects require payment

Initial Draft 2/13/2009 SECTION 11. URBANIZATION OF DITCH SYSTEMS

{STAKEHOLDER INPUT NEEDED}

 \rightarrow transfers, encroachments, etc.

SECTION 12. RECORD KEEPING

The keeping of records is essential to the proper administration of a public drainage system. That being said, many drainage system components are nearly a century old and very few original records exist. Modernization of records is made easier with GPS, GIS, and digital photography. This work, however, is typically labor intensive and expensive. Even without the use of technology, a systematic retention and filing system can provide organization that facilitates efficient and effective administration of drainage systems.

The Minnesota Board of Soil and Water Resources, in partnership with the Water Resources Center at Minnesota State University in Mankato, has recently prepared the *"Drainage Records Modernization Guideline."* This resource provides a comprehensive discussion on the history of drainage records in Minnesota, technology to preserve and update records, and best practices for inventorying undocumented systems and maintain future records of systems. The document is attached as Appendix ___, by permission of BWSR and the Water Resource Center.

<attach Drainage Records Modernization Guidelines as an Exhibit ***get BWSR
permission***>

SECTION 13. MEETINGS

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A drainage authority may only make decisions during meetings where a quorum is present. Meetings need to be held regularly. Regularly scheduled meetings can be cancelled for lack business. Any time a drainage authority cancels a meeting, changes the time, or changes the meeting, the public must be provided with notice. Notice must be given 3 days prior to the meeting by posting and mailing, or publishing in the legal paper for the authority. Emergency meetings require that the authority make a good faith effort to provide as much notice as possible.

Drainage authorities are subject to Minnesota's open meeting law. This means that the public has a right to attend meetings, view copies of documents related to the agenda that are given to the members of the drainage authority during the meeting, and know the result of all votes taken by the members of the authority. Several exceptions allow the drainage authority to close a meeting to the public: to preserve attorney/client privilege, and to negotiate real estate acquisitions. A drainage authority should work with its legal counsel to determine if a closed meeting is appropriate. Minnesota courts have held that the appropriateness of a closed meeting is highly fact specific.

Minnesota Statute 103E.043 states that "A drainage authority may hold informal meetings... to inform persons affected by the drainage system about the drainage proceedings and provide a forum for informal discussions." The meaning of this has never been explained by a court of the Minnesota attorney general. A conservative reading is that drainage authorities can hold meetings outside of regularly scheduled meetings with a less formal format, and outside of the typical meeting space. For example, the authority to convene a meeting at the drainage

system and answer questions posed by property owners. A conservative reading of this statute is that the open meeting law still applies to informal meetings. There are a number of best practices for drainage authority meetings. The meeting should be guided by a written agenda, which helps keep the meeting on track. Detailed minutes should be taken that adequately reflect the discussion by members and accurately record votes. This ensures that an appropriate record of all meetings is maintained. A drainage authority should consider using some simple rules of order. This creates a procedure to ensure the orderly running of meetings.

SECTION 14. CONSULTANTS

Initial Draft 2/13/2009

{ADDITIONAL STAKEHOLDER INPUT NEEDED}

Consultants are often an integral part of drainage system administration due to the rather obscure nature of drainage systems. Drainage authorities often engage private sector attorneys and engineers to supplement the expertise of the county attorney and county engineer.

Attorneys

Drainage authorities typically function in an informal manner. This can foster efficiency, but it can also create liability. Legal representation is not necessary for every aspect drainage administration, but there are three main areas where a drainage authority should work closely with its attorney. While costs may be a concern, consulting an attorney on the front end, is often less expensive than bring an attorney on board after things go wrong.

First, any time a violation is discovered, legal counsel should be involved early in the process. An attorney will ensure that legal processes are followed, so that if the matter does end up in court, the drainage authority is properly positioned. Second, whenever a drainage authority seeks to adopt a new policy or enter into an agreement of any kind, the authority is well advised to have its legal counsel review the policy so the authority is fully aware of the legal implication of a policy or agreement. Lastly, whenever there is a redetermination of benefits, an attorney should be consulted. A redetermination is the altering of property owners' legal rights and should be taken with a corresponding seriousness.

Engineers

<EXPAND>

Initial Draft 2/13/2009 CONTRACTORS INSURANCE <incorporate into this section>

Initial Draft 2/13/2009 SECTION 15. GOPHER STATE ONE CALL

Gopher State One Call is the one-call notification system established to inform all Minnesota underground utility companies of intended excavations. Gopher State One Call is a nonprofit organization created in 1987 by the Minnesota Legislature when it enacted Minnesota Statute Chapter 216D. The law requires anyone who engages in any type of excavation to provide advance notice of at least two working days to Gopher State One Call. The law also imposes requirement on certain local governments. The service provided by Gopher State One Call to excavators is free of charge; the cost is paid in full by underground utility companies. Minnesota Statute 216D.02 requires that cities, townships, and counties that issue permits for an activity involving excavation must display and distribute notification of the requirements imposed by Chapter 216D. Local governments are also required to submit notice to Gopher State One Call prior to soliciting any bids, executing any contracts, or undertaking any project that involves excavation. Excavation is defined very broadly to encompass nearly all activities that involve the mechanical disturbance of soil. Ordinary agricultural activity is exempted from the definition. Once utilities receive notice, they are required to mark all underground utilities at the project site. The statute creates specific timelines:

-Notice must be given to Gopher State One Call at least 48 hours prior to the excavation -Notice to Gopher State One Call must be made not more than 14 days prior to the

-Nonce to Gopher State One Call must be made not more than 14 days prior to the excavation

-Notice must be resubmitted if the project last more than 14 days unless arrangements are made with the underground utility company.

Anyone may call 811 to get the national call center which directs you to Gopher State One Call or (800) 252-1166 to call Gopher State One Call directly.

Initial Draft 2/13/2009 SECTION 16. LIST OF ACRONYMS AND DEFINITIONS

FEMA: "Federal Emergency Management Agency"- the federal agency charged with coordinating disaster recovery efforts, and administering federal disaster recovery programs and money.

<u>SWPP Plan or SWPPP:</u> "Storm Water Pollution Prevention Plan"- a component of an NPDES application that explains how applicants will control storm water.

<u>NPDES:</u> "National Pollution Discharge Elimination System"- federal permit program regulating point sources that discharge pollutants into waters of the United States; administered by the MPCA in Minnesota.

<u>MPCA</u>: "Minnesota Pollution Control Agency"- the Minnesota administrative agency charged with monitoring environmental quality, providing technical and financial assistance, and enforcing environmental regulations in the state.

<u>DNR</u>: "Department of Natural Resources"- the Minnesota administrative agency responsible for managing the state natural resources and enforcing laws related to those natural resources.

<u>GIS:</u> "Geographical Information System"- sophisticated mapping software that allows the compilation of layers of information referenced to spatial locations.

<u>GPS:</u> "Global Positioning System"- satellite based navigation and surveying system that allows for very precise 3-dimensional location.

<u>BWSR</u>: "Board of Water and Soil Resources"- the Minnesota administrative agency for SWCDs, watershed districts, water management organizations, and WCA.

WCA: "Wetland Conservation Act"- Minnesota law that maintains and protects Minnesota's wetlands with a goal of no-net-loss of wetlands in the state. The law regulates draining, filling, and replacement of wetlands and is implemented on the local and state levels..

<u>**CWA:</u>** "Clean Water Act"- federal legislation that regulates surface water quality in the United States by reducing direct pollutant discharges into waterways, financing municipal wastewater treatment facilities, and managing polluted runoff.</u>

<u>SWCD</u>: "Soil & Water Conservation District"- a governmental subdivision organized under Minnesota Statutes Chapter 103C to manage and direct natural resource management programs at the local level.

<u>PWW</u>: "Public Water Wetland"- those wetlands defined by Minnesota Statute 103G.005 Subd. 15a as " all types 3, 4, and 5 wetlands, as defined in United States Fish and Wildlife Service Circular No. 39 (1971 edition), not included within the definition of public waters, that are ten Initial Draft 2/13/2009 Initial Draft 2/13/2009 or more acres in size in unincorporated areas or 2-1/2 or more acres in incorporated areas."

Initial Draft 2/13/2009 SECTION 17. LIST OF DRAINAGE INSPECTORS <<obr/>obtain from MN Drainage Inspector Assoc. List>>

APPENDIX A

SAMPLE NOTICE OF BUFFER STRIP VIOLATION

DATE

John P. Violator Address

NOTICE OF VIOLATION (N1/2 SE1/4 Sec 10, XYZ Township)

Dear Mr. Violator:

The purpose of this letter is to notify you that you are in violation of Minnesota Statute 103E.705 with regard to the permanent vegetated buffer strips along *<drainage system ID*>.

I am the Drainage Inspector for *<drainage authority>* and on *<date>* I observed the following: {*Provide detailed description of violation from inspection report. Include information such as photos, drawings, GPS locations, written descriptions of observations.*}

You must remedy the violation by *<date>*. To remedy the violation, you must {*provide detailed summary of repairs necessary to fix violation*}.

If you fail to remedy the violation by *<date>*, the *<drainage authority>* will perform the work and charge you for the costs pursuant to Minnesota Statute 103E.705 Subd. 2.

Please contact me with questions.

Signed by Drainage Inspector

APPENDIX B

SAMPLE INSPECTION SCHEDULE

Xcel doc—already prepared, need to properly insert

APPENDIX C

SAMPLE DRAINAGE POLICY

_____ County Drainage Authority Drainage Policy

This policy is adopted by the ______ County Drainage Authority to guide the administration of public drainage facilities within ______ County. The purpose of this policy is to clarify the procedures for repair, maintenance, and the determination of benefits related to public drainage facilities.

The policy also identifies performance standards and best management practices that are necessary for the efficient and effective operation of public drainage facilities.

Benefitted landowners that own the ditch systems have the lawful right to have these drainage systems maintained. These benefitted lands and their owners have paid for the construction and maintenance of the systems without the use of public funds. State statute allows some outside funds to be used for flood control and environmental purposes only, as provided for in 103E.011.

1. DEFINITIONS

The definitions found in Minnesota Statute 103E.005 are used in this document. Definitions not found in 103E.005 are found below.

Drainage System: A public drainage system managed by the County or a Joint County Drainage Authority, including County, Judicial and Joint Ditches and drain tiles.

Drainage Inspector: A person appointed by the Drainage Authority, pursuant to Minnesota Statute 103E.065, to inspect and administer the drainage systems of the Drainage Authority.

Drainage System Improvement: Any work on or within a drainage system that lowers the original ditch or drain tile elevation or increases the original capacity of a ditch or drain tile.

Normal Agricultural Practices: Normal agricultural practices include activities normally undertaken for the purposes of raising an agricultural crop and include traditional methods tilling, planting, cultivating and harvesting. For the purposes of this policy the digging of ditches for surface drainage, tiling, the raising of crops that require unusually deep penetration of the soil or any other practices that require the unusually deep penetration of the soil, and are not considered normal agricultural practices.

2. GENERAL INFORMATION

Minnesota Statute 103E controls the repair of drainage facilities. This section is intended to restate the law in a manner that is clear and understandable to the ordinary person. "Repair" is defined by Minnesota Statute 103E.701, Subdivision 1 as "... to restore all or part of a drainage system as nearly as practicable to the same condition as originally constructed and subsequently improved, including resloping of ditches and leveling of waste banks if necessary to prevent further deterioration, realignment to original construction if necessary to restore the effectiveness of the drainage system and routine operation that may required to remove obstruction and maintain the efficiency of the drainage system."

Essentially, a repair is any activity that maintains a ditch in the state it was constructed. All decisions regarding repairs to public drainage systems are the responsibility of the Drainage Authority. In ______ County, the Drainage Authority is made up of the five county commissioners. In the case of joint county ditches, a select number of commissioners will be appointed by each County Board to serve as the Joint Drainage Authority. The Drainage Authority cannot delegate its statutory responsibilities to landowners. The Drainage Authority shall not approve any action in violation of Minnesota Law regardless of the percentage of landowners requesting a particular action.

Once a drainage system is established, the Drainage Authority has an affirmative duty to maintain the system and the grass strips. The drainage system is to be inspected on a regular basis.

3. INSPECTIONS

A. Scheduled

The Drainage Authority shall provide a regular, systematic inspection schedule for implementation by the Drainage Inspector. The Drainage Inspector shall provide a written report to the Drainage Authority for inclusion in the ditch record. The report shall list the necessary repairs and violations found at the time of inspection. The Drainage Inspector will include an estimated cost of any necessary repairs or maintenance.

B. Unscheduled

The Drainage Authority shall respond to requests for inspections to determine the existence of problems of the drainage systems. The Drainage Inspector shall provide a written report to the Drainage Authority for inclusion in the ditch record. The report shall list the conditions found at the time of inspection. The Drainage Inspector will include an estimated cost of any necessary repairs or maintenance.

C. Construction

The Drainage Inspector or staff will make inspections of any work in progress and a final inspection after the work has been completed to insure that construction on the drainage systems has been performed in a satisfactory manner.

4. MEETINGS

The Drainage Authority shall meet on the _____ of each month. The Drainage Authority may also hold special meetings as necessary. Notice of all meetings shall be published in the official newspaper of _____ County. Minutes of each meeting shall be taken and filed in the _____ County Auditor's Office.

5. ADDITIONAL DRAINAGE

A. Approval for Property Benefitted by Public Drainage System Landowners of benefitted property may seek approval from the Drainage Authority to drain water into the public drainage system by ditch or drain tile in accordance with Minnesota Statute 103E.225.

B. Approval for Property Not Benefitted by Public Drainage System

Landowners of property not assessed benefits for an existing drainage system may seek approval from the Drainage Authority to drain water into the public drainage system by ditch or drain tile in accordance with Minnesota Statute 103E.411.

C. Municipalities

A municipality may seek approval from the Drainage Authority to use the public drainage system as an outlet in accordance with Minnesota Statute 103E.401.

6. DRAINAGE SYSTEM IMPROVEMENTS

All improvements to an existing drainage system require a landowner petition and proceeding before the Drainage Authority in accordance with Minnesota Statute 103E.215.

7. VIOLATIONS

All inspection reports prepared by the Drainage Inspector shall contain photos, drawings, GPS locations, written descriptions of observations, and necessary repairs to fix identified violations. Failure to remedy violations defined in Minnesota Statute 103E.081 is a misdemeanor and subject to criminal prosecution. The Drainage Authority reserves the right to seek enforcement of violations in accordance with Minnesota Statute 103E.085.

Initial Draft 2/13/2009 REPAIR PROCEDURES

A. Procedures to Initiate Repairs

8.

There are two methods that may be used to initiate a repair to a drainage system and grass strip.

(1) <u>103E.705</u>. The most common method is to have the Drainage Authority order the repair without a petition in accordance with Minn. Stat. 103E.705. The ditch inspector must file a written report to the Drainage Authority after every inspection. Upon receiving the inspection report, the Drainage Authority may order a repair identified in the report without bids, so long as the cost of repairs for one year will be less than the greater of \$100,000.00 or \$1,000.00 per mile of open ditch in the ditch system. These limits do not apply to repairs and construction after a disaster.

In the case of joint ditch, ______County and the adjoining county, by written agreement, may authorize each county on the ditch system to order repairs not to exceed \$5,000.00 per occurrence and \$20,000.00 per ditch per calendar year. Any repairs in excess of \$5,000.00 per occurrence and \$20,000.00 per ditch per calendar year, require additional authorization of a majority of the Joint Ditch Authority.

(2) <u>103E.715</u>. The second method of initiating a repair is by petition to the Drainage Authority. The petition may be signed by *"anyone with an interest in the drainage facility."* If the Drainage Authority determines that the drainage system needs repair, the engineer will examine the drainage system and make a report.

Once the report is received from the engineer, a public hearing must be held with mailed notices to the petitioners as well as owners of property and political subdivisions likely to be affected by the repair. The notice must be mailed at least ten days before the public hearing. Minn. Stat. 103E.715, Subd. 4 restricts the Drainage Authority's ability to reject the petition if at least 26% of landowners sign the repair petition. Minn. Stat. 103E.715, Subd. 6 requires the appointment of viewers to assess damages and benefits if certain repairs are necessary.

B. Replacement of Drain Tile

When replacing drain tile lines, it is _____ County policy to use drain tile with the same size and rate of flow, and to locate the new drain tile at same depth and original location as nearly as practicable. Exceptions to this policy are:

(1) Minnesota Statute 103E.701 Subdivision 6 specifically allows:

Drain tiles or open ditches may be realigned as a repair if the realignment is for the "preservation, restoration, or enhancement of wetlands," in accordance with Minn. Stat. 103E.701, Subd. 6.

- (2) Incidental straightening of a drain tile system resulting from the tile-laying technology used to replace drain tiles, in accordance with Minn. Stat. 103E.701, Subd. 1.
 - (3) Replacement of drain tiles with the next larger size that is readily available if the original size is not readily available, in accordance with Minn. Stat. 103E.701, Subd. 1.

Subsidence of peat ground or erosion may expose drain tile lines or reduce the cover to the point where drain tile lines are being damaged by normal agricultural activities. Replacing drain tile deeper than originally installed is considered an improvement and will rarely be allowed, and then only under specific conditions. If more cover is necessary to protect the drain tile, realignment of the drain tile short distances into side hills is preferred where practicable. The following conditions must be met before the

_____ County Drainage Authority will allow a drain tile line to be realigned or replaced at a lower depth than originally constructed:

- (1) A written report from the drainage inspector or engineer must state that the drain tile line must be replaced in order to maintain the efficiency of the drainage system.
- (2) Subsidence or erosion must have occurred during normal agricultural practices.
- (3) Replacing the drain tile at its original location and depth will result in a situation where damage by normal agricultural practices is likely to occur.
- (4) The realignment or replacement of the drain tile at a lower depth will not result in additional lands being drained.
- (5) The realignment or replacement of the drain tile at a lower depth will not increase the efficiency of a private drain tile beyond the drain tile's original construction.
- (6) The Drainage Authority must consider the total cost of the repair and whether or not the repair is in the best interest of the drainage system.

C. Payment of Damages During a Repair

Minn. Stat. 103E does not provide for the repair of drainage right-of-way. The Courts, however, have determined that the repair right-of-way is permitted to the extent necessary to maintain the drainage system. It is ______ County Drainage Authority policy to pay damages for damaged crops that result from a repair. Damages to grass buffer strips or other non-crop land may be paid when the damages occur on lands enrolled in a government program that requires vegetative cover be maintained as part of the program. Damages to grass or cover crop will not be paid if the replanting is performed by the contractor as part of the repair. Damages to crops planted in violation of an established buffer strip easement will not be paid.

D. Drainage System Repair Funds

Repair funds are held in a separate ditch account for each ditch system. As required by Minnesota Statute 103E.735, the balance in this fund shall not exceed \$40,000.00 or 20% of the assessed benefits of the drainage system, whichever is greater. The annual repair assessment levies are limited to 20% of the assessed benefits of the drainage system, \$1,000.00 per mile of open ditch in the ditch system, or \$50,000.00, whichever is greater.

Consistent with the Minnesota State Auditor's position, a reasonable balance must be maintained in each account to allow for the payment of most repairs without borrowing funds from another account. The ______ County Drainage Authority has determined that \$4 to \$5 per benefitted acre is sufficient for most drainage systems. Depending on the maintenance needs of a drainage system, \$4 to \$5 per acre may be inadequate for some systems and excessive for others and may be adjusted accordingly. The Drainage Inspector will recommend to the Drainage Authority which systems should have repair funds and how much the yearly assessments should be. A yearly review of the fund balance will be done by the Drainage Inspector and recommendations made to the Drainage Authority to replenish the fund subject to statutory maximum.

If land has ditch benefits when sold and is assessed into the ditch system, the purchaser, even if it is the state or federal, should be responsible for paying any future assessments.

If a program is offered from FEMA, funds should be sought for damages after a disaster declaration.

9. CHANGES IN BENEFITS

Once a drainage system is established, benefits can only be changed by petition and hearing as required by Minnesota Statute 103E. Corrections of clerical errors are permitted after sufficient documentation is provided.

A. Petition to Remove Land From a Drainage System

(1) Once a drainage system is established, land cannot be removed from the system unless the landowner making the petition has physically diverted the water from the system. Diversions of waters can be done through an impoundment or diversion of water to a different public or

private system. The petition to remove land from a drainage system must be made under Minn. Stat. 103E.805.

(2) The procedures for the total abandonment of a public drainage system are found in Minnesota Statute 103E.811.

(3) The procedures for a municipality or water management authority to take over all or part of a public drainage system is found in Minn. Stat. 103E.812. _____ County encourages municipalities to formally take control of public systems used as municipal storm systems.

B. Petition to Remove Benefits But Not Land From a Drainage System

The placement of land into a temporary or permanent conservation easement program is not sufficient cause to remove or reduce a landowner's ditch benefits. The ______ County Drainage Authority will remove benefits from lands as part of a wetland restoration project only after a certified engineer has shown that the impoundment is a benefit to the drainage system in the form of reduced maintenance or an increase in the efficiency of all or part of the system. Each petition for removal of benefits must be filed in accordance with Minn. Stat. 103E.805 and will be handled individually based on the merits of the restoration project.

Benefits may be reduced without impoundment or diversion only if a redetermination of benefits of the entire ditch system is performed.

C. Distribution of Benefits After the Subdivision of Land

The distribution of benefits resulting from the subdivision of ownership in lands benefitted by a drainage system may be determined by a Drainage Authority or by the landowners splitting the parcel. The benefits attributed to each new parcel must reasonably represent the benefits received by each parcel. Any party may ask for a hearing before the Drainage Authority to determine the distribution of benefits.

10. STRUCTURES PROHIBITED OVER DRAIN TILE LINES

Permanent structures of any type shall not be built over or near a public drain tile line. Landowners who do build any type of structure over or near a drain tile line assume liability for any damage caused by the failure of the drain tile line. The landowner is responsible for the cost of moving a drain tile line away from a structure. Before a drain tile line is moved, the landowner must submit a plan to the Drainage Authority showing the new location of drain tile in relation to the old drain tile and all surrounding structures, a list of the materials to be used, and the name of the contractor doing the work. The Drainage Authority may require a licensed engineer to review the plan before construction.

11. PRIVATE CROSSINGS AND CULVERTS

The installation, repair, or replacement of a private crossing or culvert over a public drainage system requires written approval from the Drainage Authority before any work is done. Private crossings or culverts that were built as part of the public drainage system will be repaired and costs charged to the repair account. Private crossings not built as part of the public drainage system are the responsibility of the landowner. If a private crossing or culvert, not built as part of the public drainage system, is removed or repaired by the Drainage Authority, the costs may be charged to the landowner.

A landowner wishing to construct a new private crossing or culvert over a public drainage system must submit a written request and get permission from the Drainage Authority prior to construction. The Drainage Authority may set the width, depth, and size of the crossing or culvert and will inspect the crossing or culvert after installation. The Drainage Authority may seek the advice of a licensed engineer to determine if the proposed crossing or culvert will impair the drainage system.

The Drainage Authority reserves the right to remove, at the landowner's expense, any improperly installed crossing or culvert, extension of a crossing or culvert, or any crossing or culvert installed without prior approval from the Drainage Authority.

Increasing the width or capacity of a crossing or culvert is not a repair and all costs for such an improvement must be paid by the landowner requesting the increase in capacity or width.

The Drainage Authority has no obligation to grant a permit for improving or installing a crossing or culvert. The Drainage Authority reserves the right to use alternative methods to maintain a landowner's right of access, including, but not limited to, replacement of a bridge or culvert with another suitable material, or obtaining an alternative legal right-of-way. To the extent possible, the Drainage Authority will require the consolidation of crossings and culverts.

If a landowner places an additional crossing or culvert over a public drainage system or extends an existing crossing or culvert, the Landowner must follow the following guidelines:

- All costs of widening or extending the crossing or culvert must be paid by the landowners requesting the improvement.
- (2) Any new culvert must be bedded properly and installed at the same invert as the original culvert.
- (3) All materials used in the installation must be of the same or better quality than the original construction.
- (4) The flow under the crossing or through the culvert, to the extent practicable, must remain the same as the original flow characteristics.
- (5) A qualified contractor must perform all construction.
- (6) The landowner responsible for improving the crossing or culvert shall be responsible for all repairs or maintenance caused by improper installation.
- (7) If at some future date an extended crossing or culvert is replaced as a repair, the landowners shall be responsible for replacement of the extended portion of the crossing or culvert.
- (8) As a condition to the permit authorizing installation of the approach, crossing, or culvert, the landowner must execute and record a restriction on the property to acknowledge that the crossing or culvert shall not be part of the drainage system and subjecting the property, and any additional real estate added thereto, to ongoing operations and maintenance of the culvert.

Irrigation crossings shall be of a bridge-type that will not affect the flow of water, must be installed in a manner that will not restrict repairs on a system, and must be able to be removed easily. All costs associated with irrigation crossings shall be the responsibility of the landowner. The Drainage Authority reserves the right to regulate the width, depth and size of the crossing. If, after inspection, the crossing does not meet the Drainage Authority's requirements, the crossing must be modified to meet the requirements or removed at the landowner's expense.

12. EROSION CONTROL

The Drainage Authority shall actively promote erosion control measures that reduce future costly ditch clean outs and protect the downstream environment. Erosion control methods include, but are not limited to, the following:

A. Vegetation Control

Spraving Program. The intent of vegetation control is primarily to prevent a growth of any type of tree or brush within the public drainage system or its right-of-way as a method to reduce future repair and maintenance costs. The Drainage Inspector shall conduct regular inspections of the public drainage system. After inspection, the Drainage Inspector may recommend a spraying program to the Drainage Authority for approval.

<u>Approved Chemicals.</u> Only State and Federal approved chemicals shall be applied to eliminate trees and brush within the public drainage system. If landowners spray any private drainage system that flows into the public drainage system, only approved chemical shall be used.

<u>Opt Out of Spraying Program</u>. Landowners who disapprove of chemical application shall notify the ______ County Drainage Authority in writing each year. The Landowner shall have the option to remove all trees and brush in the ditch right-of-way at their own expense. If, upon inspection, the removal of the trees and brush is satisfactory, that portion of the ditch will be removed from the spraying area. If the tree and brush removal is not satisfactory, the Drainage Authority may order chemical spray to be applied.

<u>Mowing</u>. The District may, if cost effective, consider using a mower to control weeds along a system to prevent possible contamination of the water from spray. Only sprays that are approved for use around and over water should be used.

Tree Removal. Trees that need to be removed from a drainage system will be removed in a manner the will not cause erosion. Trees may be chipped, piled and burned when dry, or buried. Landowners may remove trees at their own expense and liability, including damage to the public drainage system.

B. Drop Inlet Pipe Structures

The most common cause of erosion in public ditches is a lack of adequate structures to control side inlet water flow into the ditch. The Drainage Authority will install drop inlet pipe structures, as a maintenance procedure, in areas where erosion is a potential problem. The Drainage Authority shall be responsible for paying the following expenses to install a drop inlet pipe structure:

- (1) Forty feet of pipe; dual wall plastic pipe preferred, with the first twenty feet of the outlet end being non-perforated steel pipe,
- (2) Blind tee,
- (3) Marker flag,
- (4) Five feet of perforated riser or trash guard, typically six inches in diameter, and
- (5) All excavation necessary to install the drop inlet pipe structure.

If a landowner requests extending the horizontal pipe beyond the edge of the spoil bank, all expenses associated with the additional extension shall be paid by the landowner.

A landowner who has a private drain tile system that brings sub-surface water drainage into the public drainage system shall be solely responsible for the costs and installation of an adequate outlet into the public drainage system.

C. Grass Buffer Strips

The ______County Drainage Authority encourages the use of the grass buffer strips beyond the one rod buffer established under Minnesota Statute 103E.021 and the use of the grass buffer strips where the one rod buffer has not been established under 103E.021.

The ______ County Drainage Authority is required to notify landowners of a violation of a grass buffer strip established under Minnesota Statutes 103E.021. The landowner shall have 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 on a manner describe in Minnesota Statute 103E.021 Subdivisions 4 and 5.

Agricultural practices such as plowing, tilling, pasturing, or other practices, which are not consistent with the purpose of the grass buffer strip, are prohibited. The grass buffer strip may be cut for hay. Grasses used to seed slopes and grass buffer strips must be resistant to sprays and chemicals used to control brush.

Initial Draft 2/13/2009 **MUNICIPAL USE OF A PUBLIC DRAINAGE SYSTEM**

Municipalities are encouraged to request transfer of all or part of a public drainage system being for municipal drainage to the Municipality. The laws regarding such transfers are found in Minnesota Statutes 103E.812. Municipalities using a Drainage System as an outlet must comply with State Law. Land within a municipality which is not already listed as benefitting from a drainage system, may not use a Drainage System without a petition under 103E.411.

14. BEAVER CONTROL

When beaver dams are reported or discovered when inspecting drainage systems, a trapper will be retained by the Drainage Authority to remove the problem beaver. It is the trapper's responsibility to contact the DNR for appropriate approval for trapping beavers out of season. The rate of payment is currently \$_____ per beaver and is subject to change. The County will only pay the trapping fee on beavers when:

- (1) The trappers have had their names registered with the Ditch Inspectors;
- (2) The trapper has been directed by one of the Ditch Inspectors to remove problem beavers from specifically designated County Ditches.
- (3) The beaver tails must be presented to one of the Ditch Inspectors before payment of \$______per tail will be authorized.

The Ditch Inspector will dispose of the beaver tails in such a way that they cannot be resubmitted.

After the beavers are removed, the Drainage Authority Representative may hire a contractor to remove the beaver dam by mechanical means whenever possible. If explosives are to be used by a contractor, the contractor must be approved by the County Sheriff and provide permits and insurance. Ditch banks and areas affected by the dam removal areas will be restored and reseeded as necessary to prevent erosion.

If offered by the state, the District shall participate in the nuisance beaver control program.

15. MISCELLANEOUS DRAINAGE SYSTEM ISSUES

Livestock. Livestock are prohibited from drainage ditches, except to cross at approved locations. If livestock must cross a ditch, the preferred method is to have them cross at an installed crossing to prevent the livestock from entering the water. Livestock may be watered from a ditch but the access to the ditch must be controlled and minimal. Livestock are permitted to graze along a ditch for short periods of time to control vegetation. Trampling of the ditch banks is prohibited. Owners wishing to graze the spoils and slopes must contact the Drainage Inspector to work out a grazing rotation for the livestock.

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 regulations.

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

Fences. No permanent fence may be installed closer than 50 feet from the crown of the spoils. When drainage system 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.

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

<u>Obstructions</u>. 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 compliance with Minnesota Statute

103E.075. The Drainage Authority must be notified of any temporary obstruction that will disrupt flow and drainage for more than 2 days.

Deer Stands. Deer stands and other facilities used for recreation shall not be placed closer than 16.5 feet from the crown of the ditch. Any structure blocking maintenance to the ditch will be removed by the Drainage Authority regardless of its distance from the ditch.

<u>Rock and Debris</u>. Rock and Debris is prohibited within the in-slope of a drainage ditch. Debris shall not be dumped within 75 feet of the crown of the spoil bank or 100 feet from the center of the ditch, whichever is greater.

Landowner Rights. A public drainage system is an easement for drainage purposes. The land within a drainage system remains private property, with no right of public access. None of the policies of the Drainage Authority allow any additional entry by the public beyond the minimum entry allowed by state law. Drainage Authority staff and contractors shall make reasonable efforts to contact landowners before entering property.

Building Setbacks. No permanent structure shall be built within 75 feet of the crown of the spoil bank or 100 feet from the center of the ditch, whichever is greater.

<u>Wetlands</u>. Wetland areas along, or that are part of a drainage system, should be used for temporary storage for large rainfall events. These areas should be allowed to drain out naturally so storage is available for future storm events.

16. REMOVAL AND ABANDONMENT

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

APPENDIX D

SAMPLE INSPECTOR REPORT

	Initial Draft 2/13/2009
	Report No
	COUNTY DRAINAGE SYSTEM INSPECTION REPORT
Drainage System Inspected:	
Date of Inspection:	Regularly Scheduled or Requested Inspection
Person Requesting Inspection:	Date of Request:
Reason for Request:	
Excessive broadleaf weeds are visibl	le in Sections:
	GPS coordinates:
Suggested Corrective Action	n:
Estimated Cost:	
Trees Growing in Sections:	
	GPS coordinates:
Suggested Corrective Action	n:
Estimated Cost:	
The 16.5 foot grass strip has been pa	artially or completely impaired in the following sections: GPS coordinates:
Suggested Corrective Action	n:
Estimated Cost:	
Sediment deposits are visible in the c	channel in sections:
	GPS coordinates:

Initial Draft 2/13/2009				
Suggeste	d Corrective Action:			
Estimate	d Cost:			
Culverts or drain	tile need repair or re	placement in the following	ng locations:	
			GPS coordinates:	
Culvert:	Size:	Length:	Estimated Cost:	
Drain Til	e: Size:	Length:	Estimated Cost:	
Other observation	Other observations and recommendations (Attach photos and sketches as necessary):			
TOTAL ESTIMA	ATED COST:			
Inspector Signatu	re:		Date:	
Print Nar	ne:			
*****	*****	******OFFICE USE**	*****	
Date Presented to	Board:	Date	of Board Action:	
Summary of Boa	rd Action:			
Contractor to Per	form Work:			
Cost of Contract	or Cost per Hour		Completion Date:	

APPENDIX E

SAMPLE REQUEST FOR MAINTENANCE

Initial Draft 2/13/2009 ____ COUNTY REQUEST FOR MAINTENANCE

Request #____

I am affected by the following public drainage system: _____

The following problems are impairing the function of the public drainage system (Attach photos and sketches as necessary): ______

Please indicate whether the entire drainage system or just a portion requires maintenance. If only a portion requires maintenance, please identify the exact location of the problem: ______

GPS coordinates:

It is my opinion that the following work needs to be performed to restore the proper function of the drainage system:

Name	Phone	Land Description	Signature	Date

Date Presented to Board: _____ Date of Board Action: _____ Summary of Board Action: _____

Contractor to Perform Work:		
Estimated Cost:	Cost of Contract or Cost per Hour:	
Completion Date:		

APPENDIX F

SAMPLE PETITION FOR REPAIR

Initial Draft 2/13/2009 **Petition for Repair of a Drainage System** (Pursuant to Minnesota Statute 103E.715)

Drainage System Name:______ (e.g., county ditch no. 1 or judicial ditch no. 1)

Location of Drainage System - Township(s): ______ County(s): ______

Petitioner(s) understand the statutory definition of "repair" is as follows:

MINNESOTA STATUTE 103E.701 REPAIRS

Subdivision 1. **Definition.** The term <u>"repair,"</u> as used in this section, means to restore all or a part of a drainage system as nearly as practicable to the same condition as originally constructed and subsequently improved, including resloping of ditches and leveling of waste banks if necessary to prevent further deterioration, realignment to original construction if necessary to restore the effectiveness of the drainage system, and routine operations that may be required to remove obstructions and maintain the efficiency of the drainage system. "Repair" also includes:

(1) incidental straightening of a tile system resulting from the tile-laying technology used to replace tiles; and

(2) replacement of tiles with the next larger size that is readily available, if the original size is not readily available.

Petitioners believe this drainage system needs repairs because:

= 100

Petitioners request the Drainage Authority:

- a. Determine the drainage system needs repair and appoint an engineer to examine the drainage system and make repair report. M.S. 103E.715, Subd. 2
- b. After filing of the repair report, set a public hearing and provide at least ten days' written notice of the public hearing to petitioners, owners of property, and political subdivisions likely to be affected by the repair in the repair report. M.S. 103E.715, Subd. 3
- c. At the public hearing, make findings and order the repair be made if:
 - (1) the drainage authority determines from the repair report and the evidence presented that the repairs recommended are necessary for the best interests of the affected property owners (M.S. 103E.715, Subd. 4(a)(1)); or
 - (2) the repair petition is signed by the owners of at least 26 percent of the property area affected by and assessed for the original construction of the drainage system, and the drainage authority determines that the drainage system is in need of repair so that it no longer serves its original purpose and the cost of the repair will not exceed the total

Initial Draft 2/13/2009 benefits determined in the original drainage system proceedings. (M.S. 103E.715, Subd 4(a)(2).)

Petitioner		Date:
	Signature	
	Name (Print)	Phone:
	Address:	
	My interest in this drainage system is:	
Petitioner	: Signature	Date:
	Name (Print)	Phone:
	Address: My interest in this drainage system is:	
Petitioner	: Signature	Date:
	Name (Print)	Phone:
	Address:	
	My interest in this drainage system is:	
Petitioner	: Signature	Date:
	Name (Print)	Phone:
	Initial Draft	2/13/2009

Address: ______
My interest in this drainage system is: _____

{Signature page __ of __}

APPENDIX G

STORM WATER POLLUTION PREVENTION PLAN TEMPLATE
Attachment A: Construction SWPPP Template

Stormwater Pollution Prevention Plan (SWPPP) Template To comply with the General Stormwater Permit for Construction Activity (MN R100001)

IMPORTANT: Before completing this SWPPP, you must read and understand the requirements in the General Stormwater Permit for Construction Activity (MN R100001) available from MPCA at http://www.pca.state.mn.us/water/stormwater/index.html. An overview of the permit is available from MPCA at http://www.pca.state.mn.us/water/stormwater/index.html. An overview of the permit is available from MPCA at http://www.pca.state.mn.us/water/stormwater/index.html. An overview of the permit is available from MPCA at http://www.pca.state.mn.us/publications/wq-strm2-05.pdf. This SWPPP Template will help you complete information required in Parts III and IV of the permit.

Construction Activity Information					
Project Name					
Project Locati	on				
Briefly describe	where construction	n activity occurs. Include	address if av	vailable	
City or Townshi	City or Township State, Zip Code MN				
Latitude and lor	igitude of approxi	nate centroid of project			
Method of collec GPS Online t	ction of latitude/loc ool USGS To Scale us	ngitude: ppographic map ed			
All cities where	construction will o	occur			
All counties whe	ere construction wi	Ill occur All t	ownships wh	ere construction	on will occur
Project Size (r	number of acres	to be disturbed)			
Project Type					
Residential		Commercial/Industri	al	🗆 Road Con	struction
Residential an Construction	Residential and Road Other (describe) Construction Other (describe)				
Cumulative I	mpervious Su	rface			
Existing area of	impervious surfac	e(t	o the nearest	quarter acre)	
Post construction area of impervious surface (to the nearest quarter acre)					
Receiving Waters					
Water Body ID*	Name of Water Body	Type (ditch, pond, wetland, lake, stream, river)	Special W (See Stormw Appendix A)	ater? ater Permit	Impaired Water?** (See Stormwater Permit

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			Appendix A)
		🗆 No	🗆 Yes 🗆 No
		🗆 No	🗆 Yes 🗆 No
	□ Yes □	🗆 No	🗆 Yes 🗆 No
	□ Yes □	🗆 No	🗆 Yes 🗆 No
*Water Body ID might not be available for all wat Tool at: <u>www.pca.state.mn.us/water/stormwater/st</u> ** Impaired water for the following pollutant(s) or biotic impairment	ormwater-c.html • stressor(s): phospho	pectal and Imports, turbidity	, dissolved oxygen, or
Dates of Construction			
Construction Start Date	Estimated Com	pletion Date	
Contact Information			
Owner of the Site			
Business of Firm Name			
Last Name First Name Title	E-mail	Telepl code)	none (include area
Mailing Address	City	State	Zip Code
Alternate Contact Last Name First Name	E-mail Teleph code)		none (include area
Contractor (Person who will oversee imple	mentation of the	SWPPP)	
Business of Firm Name			
Last Name First Name Title	E-mail	Telepl code)	none (include area
Mailing Address	City	State	Zip Code
Alternate Contact Last Name First Name	E-mail	Telephone (<i>include area code</i>)	
Party Responsible for Long Term Operation Stormwater Management System	n and Maintenand	e of the Pe	rmanent
Business of Firm Name			
Last Name First Name Title	E-mail	Telepl code)	none (include area
Mailing Address	City	State	Zip Code
Alternate Contact Last Name First Name	E-mail	Telepl code)	none (include area

Describe the construction activity (what will be built, general timeline, etc.)

Describe soil types found at the project.

 General site information (III.A)

 Describe the location and type of all temporary and permanent erosion prevention and sediment control BMPs. Include the timing for installation and procedures used to establish additional temporary BMPs as necessary. (III.A.4.a)

 Attach to this SWPPP a table with the anticipated quantities for the life of the project for all erosion prevention and sediment control BMPs (III. A. 4.b)

 Attach to this SWPPP a site map that includes the following features (III.A.3.b – f):

 Existing and final grades, including dividing lines and direction of flow for all pre and post-construction stormwater runoff drainage areas located within the project limits.
 Locations of impervious surfaces and soil types.
 Location of areas not to be disturbed.
 Location of areas of phased construction
 All surface waters and existing wetlands within 1mile from the project boundaries that will receive

• An surface waters and existing wethands whilm trime from the project oblindaries that with receive stormwater runoff from the site (identifiable on maps such as USGS 7.5 minute quadrangle maps or equivalent). Where surface waters receiving runoff associated with construction activity will not fit on the plan sheet, they must be identified with an arrow, indicating both direction and distance to the surface water.

• Methods to be used for final stabilization of all exposed soil areas.

Were stormwater mitigation measures required as the result of an environmental, archaeological, or other required local, state, or federal review of the project? If yes, describe how these measures were addressed in the SWPPP. (III.A.6.)

Is the project located in a karst area such that additional measures would be necessary to protect drinking water supply management areas as described in Minn. R. chapters 7050 and 7060? If yes, describe the additional measures to be used. (III.A.7.)

Does the site discharge to a calcareous fen listed in Minn. R. 7050.0180, subp. 6.b.? If yes, a letter of approval from the Minnesota Department of Natural Resources must be obtained prior to application for this permit. (Part I B.6 and Part III.A.8)

Does the site discharge to a water that is listed as impaired for the following pollutant(s) or stressor(s): phosphorus, turbidity, dissolved oxygen or biotic impairment? Use the Special and Impaired Waters Search Tool at: www.pca.state.mn.us/water/stormwater/stormwater-c.html. If no, skip to next box.

Does the Impaired water have an approved TMDL with an Approved Waste Load Allocation for construction activity? If yes:

- a. List the receiving water, the areas of the site discharging to it, and the pollutant(s) identified in the TMDL
- b. List the BMPs and any other specific construction stormwater related implementation activities identified in the TMDL.

If the site has a discharge point within one mile of the impaired water and the water flows to the impaired water but no specific BMPs for construction are identified in the TMDL, the additional BMPs in Appendix A (C.1 and C.2) must be added to the SWPPP and implemented. (III.A.7). The additional BMPs only apply to those portions of the project that drain to one of the identified discharge points.

Training (III.A)

Training is required for all permitted projects after February 1, 2010. It must be provided by entities with expertise in erosion prevention, sediment control or permanent stormwater management. Training must be focused on the individual's job duties as they relate to the permit requirements (Part III.A.2). Who must be trained?

- ✓ Individual(s) preparing the SWPPP for the project
- Individual(s) overseeing the implementation of, revising and amending the SWPPP and individuals performing inspections required by the permit
- ✓ Individuals performing or supervising the installation, maintenance or repair of BMPs Attach to this SWPPP:

Names of the personnel trained; dates of training; name of instructor(s) and entity providing training; content of training course or workshop (including number of hours of training).

providing training; content of training course or workshop (including number of hours of training)

Selection of a Permanent Stormwater Management System (III.C)

Will the project create a new cumulative impervious surface greater than or equal to one acre? \Box Yes \Box No If yes, a water quality volume of $\frac{1}{2}$ inch of runoff from this area must be treated before leaving the site or entering surface waters (1 inch if discharging to special waters).

Describe which method will be used to treat runoff from the new impervious surfaces created by the project (III.C):

Wet sedimentation basin

- Wet sedimentation basif
 Infiltration/Filtration
- Inflitration/Filtration
 Regional ponds

Combination of practices
Include all calculations and design information for the method selected. See Part III.C of the permit for specific
requirements associated with each method.

If it is not feasible to meet the treatment requirement for the water quality volume, describe why. This can include proximity to bedrock or road projects where the lack of right of way precludes the installation of any permanent stormwater management practices. Describe what other treatment, such as grasses swales, smaller ponds, or grit chambers, will be implemented to treat runoff prior to discharge to surface waters. (III.C)

If proposing an alternative method to treat runoff from the new impervious surfaces, describe how this alternative will achieve approximately 80% removal of total suspended solids on an annual average basis (III.C.5). NOTE: If proposing an alternative method, you must submit your SWPPP to MPCA at least 90 days prior to the starting date of the construction activity.

Erosion Prevention Practices (IV.B)

Describe construction phasing, vegetative buffer strips, horizontal slope grading, and other construction practices to minimize erosion. Delineate areas not to be disturbed (e.g., with flags, stakes, signs, silt fence, etc.) before work begins.

Describe temporary erosion protection or permanent cover used for exposed soil. All exposed soil areas must be stabilized as soon as possible but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently (part IV.B.2)

For drainage or diversion ditches, describe practices to stabilize the normal wetted perimeter within 200 lineal feet of the property edge or point of discharge to surface water. The remaining portions of the temporary or permanent ditch or swale must be stabilized within 14 days after connecting to surface waters and construction in that portion of the ditch has temporarily or permanently ceased.

Describe other erosion prevention practices (list and describe).

Sediment Control Practices (IV.C)

Describe sediment control practices used to minimize sediments from entering surface waters, including curb and gutter systems and storm drain inlets. At a minimum, these sediment control practices must include:

Sediment controls for temporary or permanent drainage ditches and sediment basins that are designed as

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 part of a treatment system Installation of check dams or other grade control practice to ensure sheet flow and prevent rills (for slope lengths greater than 75 feet with a grade of 3:1 or steeper). Sediment control practices on all down gradient perimeters prior to land disturbing activities. Storm drain inlet protection for all inlets. Silt fencing or other sediment control surrounding temporary soil stockpiles. Minimize vehicle tracking of sediments (e.g., stone pads, concrete or steel wash racks, or equivalent systems). Street sweeping of tracked sediment. Temporary sedimentation basins (see Part III.B).
Dowatoring and Basin Draining (IV D)
Will the project include dewatering or basin draining? \Box Ves \Box No
If yes, describe BMPs used so the discharge does not adversely affect the receiving water or downstream andowners.
Additional BMPs for Special Waters and Discharges to Wetlands (Appendix A, Parts C and D) Special Waters. Does your project discharge to special waters? Delow.
If proximity to bedrock or road projects where the lack of right of way precludes the installation of any of the permanent stormwater management practices, then other treatment such as grassed swales, smaller ponds, or grit chambers is required prior to discharge to surface waters. Describe what other treatment will be provided.
Describe erosion and sediment controls for exposed soil areas with a continuous positive slope to a special waters, and temporary sediment basins for areas that drain 5 or more acres disturbed at one time.
Describe the undisturbed buffer zone to be used (not less than 100 linear feet from the special water).

Describe how the permanent stormwater management system will ensure that the pre and post project runoff rate and volume from the 1, and 2-year 24-hour precipitation events remains the same.

Describe how the permanent stormwater management system will minimize any increase in the temperature of trout stream receiving waters resulting in the 1, and 2-year 24-hour precipitation events.

Wetlands. Does your project discharge stormwater with the potential for significant adverse impacts to a wetland (e.g., conversion of a natural wetland to a stormwater pond)? \Box Yes \Box No If Yes, describe the wetland mitigation sequence that will be followed in accordance with Part D of Appendix A.

Inspections and Maintenance (IV.E)

Describe procedures to routinely inspect the construction site:

- Once every seven (7) days during active construction and,
- Within 24 hours after a rainfall event greater than 0.5 inches in 24 hours, and within seven (7) days after that.

Inspections must include stabilized areas, erosion prevention and sediment control BMPs, and infiltration areas.

Pollution Prevention Management Measures (IV.F) Describe practices to properly manage and dispose of solid waste, including trash (IV.F.1)

Described practices to properly manage hazardous materials (IV.F.2).

Describe practices for external washing of trucks and other construction vehicles (IV.F.3)

Describe how are you going to provide a safe, lake proof, concrete washout on site (IV.F.4):

Describe your spill prevention plan.

Describe measures to address sanitary and septic waste.

Final Stabilization (IV.G)

Describe how you will achieve final stabilization of the site (IV.G).

Records Retention (III.D)

Describe your record retention procedures (must be kept at the site) (III.D). Records must include:

- Copy of SWPPP and any changes
- Training documentation (III.A.2.)
- Inspection and maintenance records
- Permanent operation and maintenance agreements
- Calculations for the design of temporary and permanent stormwater management systems.

APPENDIX H

SAMPLE ASSESSMENT DIVISION

NOTICE OF DITCH ASSESSMENT DIVISION AGREEMENT

TO: COUNTY RECORDER FOR <> COUNTY

Notice is hereby given that on ______, 20__, a Ditch Assessment Division Agreement (the "Agreement), which is attached as **Exhibit A**, was entered into by <> and <> (the "Parties") regarding <ditch name and number>. This Agreement was entered into to clarify how future benefits for <ditch name and number> would be calculated for the subdivided property described in **Exhibit B**. The allocation of ditch benefits prior to and subsequent to the property subdivision is described in **Exhibit A**.

The Ditch Assessment Division Agreement shall be deemed to run with the land and shall be binding upon the parties' successors and assigns.

Dated:	, 20	
Dated:	. 20	
Dutou	, 20	
	•	
Dated:	, 20	
Dated:	, 20	

STATE OF MINNESOTA)
) SS
COUNTY OF)

On this _____ day of ______, 20___, before me, a Notary Public within and for said County, personally appeared ______, to me known to be the person described in, and who executed the foregoing instrument, and acknowledged that he/she executed the same as his/her free act and deed.

		Notary Public
STATE OF MINNESOTA)	
) SS	
COUNTY OF)	

On this _____ day of ______, 20___, before me, a Notary Public within and for said County, personally appeared ______, to me known to be the person described in, and who executed the foregoing instrument, and acknowledged that he/she executed the same as his/her free act and deed.

Notary	Public
--------	--------

STATE OF MINNESOTA)
) SS
COUNTY OF)

On this _____ day of ______, 20___, before me, a Notary Public within and for said County, personally appeared ______, to me known to be the person described in, and who executed the foregoing instrument, and acknowledged that he/she executed the same as his/her free act and deed.

Notary Public

THIS INSTRUMENT DRAFTED BY:

Phone: (____)_____

EXHIBIT A

DITCH ASSESSMENT DIVISION AGREEMENT

County Auditor's Office

Date Mailed: _____

Beginning Payable: ___

I hereby certify that the following is a correct statement of the assessment of benefits assessed against the property below described, the said assessment having been made in the matter of _____ Ditch # _ _____ - (ditch name and number).

Name of Owners	Description of Land	# of Acres in Tract	Original Amount of Benefits for Parcel
			\$ (%)
			\$ (%)
Total			\$ (%)

In order that any future assessments against said ditch system may be assessed separately, we the undersigned hereby agree to the following division of the benefits against the property. Described below as follows:

Name of Owners After Property Split	Description of Land	# of Acres in Tract	Amount of Benefits for Split Parcels
			\$ (%)

Note - copy has been sent to all parties.

Owners Signature

Owners Signature

Name		Name
Address		Address
Phone	Date	Phone

Address	
Phone	Date

Initial Draft 2/13/2009 Exhibit B

(Subdivided Property Description)

APPENDIX I

MPCA GUIDANCE DOCUMENT "DRAINAGE DITCH PROJECTS"

<<<see NPDES Section>>>