ORDINANCE NO. 06-1

Douglas TOWNSHIP
DAKOTA COUNTY, MINNESOTA

AN ORDINANCE ESTABLISHING EROSION CONTROL AND STORM WATER MANAGEMENT REQUIREMENTS FOR LAND DISTURBANCES

THE BOARD of Douglas TOWNSHIP DOES ORDAIN:

Section 1: Purpose

1.1 The purpose of this Ordinance is to prevent or reduce the negative impacts of stormwater runoff and to provide for the protection of water quality and natural resources by requiring that land disturbance activities comply with Township minimum standards for permit requirements, plan reviews, erosion control, stormwater management and buffers.

1.2 This Ordinance requires that all land disturbance activities, whether requiring a permit under this Ordinance or otherwise, shall not result in nuisance conditions or threaten public safety, health and welfare. All work must be performed in conformance with the goals and strategies of the North Cannon River WMO Watershed Management Plan.

Section 2: Coverage

2.1 This Ordinance covers all land disturbances, within the jurisdictional boundaries of ____Township.

2.2 Unless the Township has determined the activity to be exempt per Section 2.4, all proposed land disturbances that are equal to or greater than one (1) acre in size, and including the disturbance of less than one (1) acre that is part of a larger common plan of development or sale that will ultimately disturb greater than one (1) acre, and/or result in the temporary or permanent placement of or stockpiling of fifty (50) cubic yards or more of soil materials, shall apply to the Township for a permit and submit a project Storm Water Pollution Prevention Plan (SWPPP) for review and approval.

2.3 No land disturbance shall be allowed until the Township has approved the project SWPPP and issued a permit.

2.4 The following activities are not regulated under this Ordinance and are Exempt;

A.) Minor land disturbance activities such landscaping, repairs, and maintenance work that are less than one (1) acre in size and not part of a larger common plan of development or sale.

B.) Land disturbances to construct, install, or maintain public or private utilities that are less than one (1) acre in size and not part of a larger common plan of development or sale.

C.) All USDA/NRCS agricultural activities for the production of agricultural, horticultural, or silvicultural crops and livestock production including the installation or maintenance of drainage tile lines and fencing for livestock or other agricultural purposes.

D.) All wetland activities within or adjacent to a delineated wetland, authorized and performed in conformance with the rules of the Minnesota Wetland Conservation Act (WCA).

E.) Emergency repair work requiring immediate action, provided the disturbed area is limited to the minimum area needed to address the emergency and the area is stabilized in accordance with the Ordinance requirements as soon as possible. A permit will be required for all subsequent or additional work.

F.) Commercial mining activities including the extraction, crushing, washing, refining or processing of sand, gravel, rock, black dirt, peat and soils and their removal from the site.

Section 3: Definitions

3.1 For the purposes of this Ordinance, the following terms, phrases, words, and their derivatives must have the meaning stated in Section 3.4 and shall include by reference the definitions found in Appendix "B" of the most current NPDES Construction Permit.

3.2 All references to specific sections of the Minnesota Statutes or Rules include amendments, revisions or recodifications of such sections.

3.3 The words "shall" and "must" are mandatory; the word "may" is permissive.

3.4 Definitions:

Applicant Any person or entity that applies to the Township for a permit under this Ordinance.

BMPs Best Management Practices as described in the MPCA Protecting Water Quality in Urban Areas Manual.

Buffer Strip An area of dense vegetated ground cover abutting or surrounding a wetland, water body or watercourse that filters sediment and retains nutrients from stormwater runoff.

Discharge The runoff or drainage of storm water, including snowmelt, from a project site. The discharge point is the location of a flow outlet or where flows cross a property line.

Exposed Soil Areas All areas where the vegetation (trees, shrubs, brush, etc.) has been removed or has not been established. This includes topsoil stockpile areas, fill/borrow areas and disposal areas.

Impervious Surface A constructed hard surface that either prevents or retards the entry of water and causes water to run off the surface in greater amounts than would have run off prior to the construction of the surface. Examples include: rooftops, sidewalks, patios, driveways, parking lots, storage areas, concrete, asphalt, gravel roads; and includes areas where the native soils have been densely compacted.

Infiltration The percolation of water into the ground to provide water quality treatment, groundwater recharge and reduce the amount of stormwater runoff.

Land Disturbance All activities that removes or buries vegetative covers, exposes soil areas and/or results in a change in surface topography including: construction activity, excavation, fill, grading,

stockpiling soil, the construction of any structure, and/or any other activity that may cause or contribute to erosion or the movement of sediment. (Agricultural activities are not a land disturbance under this Ordinance. See Section 2 for other exempt activities.)

Landlocked Basin A basin that is one acre or more in size and does not have a natural or publicly maintained outlet at or below the calculated flood elevation.

LID Low Impact Development – Site designs to reduce storm water impacts and mimic natural conditions.

MPCA Minnesota Pollution Control Agency – Administrator of the NPDES permit program.

NPDES National Pollutant Discharge Elimination System – State permit program to protect water quality.

Nuisance Condition Any condition resulting in or likely to result in any damages, degraded water quality, increased erosion, unstable conditions, flooding, lack of easement, lack of capacity, disrepair and all threats to public health, safety and welfare.

Ordinary High Water (OHW) The boundary of water basins, watercourses, public waters and public water wetlands and:

(1) The ordinary high water level is an elevation delineating the highest water level that has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial;

(2) For watercourses, the ordinary high water level is the elevation of the top of the bank of the channel; and

(3) For reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool.

Runoff Coefficients (RCNs) An assigned number used in hydrologic models to represent the amount of precipitation that is not infiltrated into the surface upon which it falls. The higher the RCN; the greater the runoff amount.

Structure Anything manufactured, constructed or erected which is normally attached to or positioned on land, including portable structures, earthen structures, roads, parking lots, and storage areas.

SWCD Dakota County Soil and Water Conservation District

SWPPP Storm Water Pollution Prevention Plan – A project plan identifying the existing site conditions, the proposed work and specific actions to be taken to protect water quality per the NPDES permit.

USDA/NRCS agricultural activities – All agricultural activities for the production of agricultural, horticultural, or silvicultural crops and livestock production including the installation or maintenance of drainage tile lines and fencing for livestock or other agricultural purposes regardless of whether the land owner or land operator is enrolled in the Federal Farm Program.

Section 4: Erosion and Sediment Control Standards

All projects discharging to Special Waters as defined in Minn. R. 7050.0180 shall comply with the additional requirements of most current Appendix "A" of the NPDES Construction Permit. Where provisions of Appendix "A" conflict with the requirements elsewhere in this Ordinance, the provisions in Appendix "A" shall take precedence.

4.1 All land disturbances requiring a permit under this Ordinance, shall submit a Storm Water Pollution Prevention Plan (SWPPP) to the Township for review and approval.

4.2 The SWPPP must clearly show the nature and extent of the proposed work and shall specify the work must be performed in conformance with this Ordinance and the most current requirements of the NPDES Construction Permit.

4.3 The Township may require the applicant to submit any additional information or data it determines to be necessary to complete its review. Submittals determined by the Township to be incomplete or otherwise unacceptable for the purposes of this Ordinance shall be returned to the applicant for correction and resubmittal.

4.4 The minimum submittal requirements are:

A.) A detailed SWPPP in compliance with the most current NPDES Construction Permit.

B.) The following additional information shall be submitted to the Township for review along with the SWPPP information:

1. Location of surface waters including wetlands delineations, lakes, streams, shoreland zoning, floodplains, 303(d) Impaired Waters, Outstanding Resource Value Waters and Special Waters.
2. Identify all unstable areas such as steep slopes, ravines, and gullies.
3. Discharge points where predevelopment and post development flows cross property lines.
4. Copies of approved permits from local, state and federal agencies applicable to the work.

Section 5: Storm Water Management Standards

All projects discharging to Special Waters as defined in Minn. R. 7050.0180 shall comply with the additional requirements of the most current Appendix "A" of the NPDES Construction Permit. Where provisions of Appendix "A" conflict with the requirements elsewhere in this Ordinance, the provisions in Appendix "A" shall take precedence.

5.1 In addition to the SWPPP, all land disturbances cumulatively creating a total of one (1) or more acres of new impervious surface must also submit engineered construction plans and calculations to the Township for review and approval. The cumulative new impervious surface shall include both the onsite areas and the offsite areas where impervious surfaces have been created in association with the work. (i.e., new streets, lane widening, etc)

5.2 The engineered construction plans and calculations must clearly show the nature and extent of the proposed work and specify a stormwater management system designed to effectively manage stormwater, for the both onsite and offsite work areas, in conformance with this Ordinance, the most current NPDES Construction Permit and all other applicable Federal, State and/or Local regulatory requirements.

5.3 The Township may require the applicant to submit any additional information or data it determines to be necessary to complete its review. Submittals determined by the Township to be incomplete or otherwise unacceptable for the purposes of this Ordinance shall be returned to the applicant for correction and resubmittal.

5.4 The minimum engineered construction plan submittal requirements are:

A) A registered professional engineer must sign all engineered construction plans and calculations.

B) The engineered construction plans and calculations must include sufficient information for the Township to evaluate the changes to the storm water drainage characteristics within the watershed areas affected by the proposed land disturbance activity and the designed performance of the new system.

C) A written assessment that identifies the potential for downstream nuisances conditions.

D) The following information shall be submitted to the Township for review:

1. A detailed SWPPP in compliance with the most current NPDES Construction Permit.
2. Engineered construction plans showing all proposed onsite and offsite site improvements and all land disturbance areas.
3. Drainage exhibits identifying the drainage areas, patterns, pervious/impervious surface covers and assigned RCNs for the pre-developed and post-developed conditions.
4. Map identifying the hydrological soil types.
5. A Drainage Summary and Drainage Exhibit identifying the existing and proposed peak discharge rates at each project discharge point for the 2, 10 and 100-year events and volume for the 1-year event.
6. Supporting documentation used to determine peak discharge rates and volumes.
7. First floor and lowest opening elevations for all existing and proposed buildings and information regarding whether the structure is or is not in a land-locked area. Identify location and elevation of all emergency overflows.
8. The normal and high water and 100-year flood elevations for all adjacent water bodies whether natural or created and the delineation of all areas subject to flooding at the 100-yr flood elevation.
9. Location and size of all existing public and private drains and tiles lines.
10. Identification of the downstream drainage conditions at each project discharge point.
11. Location of all wetlands, water bodies, watercourses, 303(d) Impaired Waters, Outstanding Resource Value Waters and Special Waters.
12. Copies of approved permits from local, state and federal agencies applicable to the work.

5.5 All storm water must be discharged in a manner that shall not cause nuisance conditions, erosion in receiving channels or on down slope properties, or inundation in wetlands causing a significant adverse impact to the wetlands as determined by the regulating governmental agency.

5.6 The minimum design capacity of drainage systems shall be the ten (10) year storm event and shall be designed to convey runoff from a one hundred (100) year event without significant damage or significant risk to human health and safety.

5.7 Discharge Rate Controls: Storm water discharges shall be controlled so that at each project discharge point, the pre-development two (2), ten (10), and one hundred (100) year storm event peak discharge rates are not increased in the post-developed condition.

5.8 The hydrological model calculations used to determine the pre-developed and post-developed discharge rates and volume shall use the Natural Resources Conservation Service (NRCS) SCS TR-20 and TR-55 Methods as defined in the current Hydrology Guide for Minnesota.

5.9 The SCS TR-20 and TR-55 model calculations shall use rainfall depths for the one (1), two (2), ten (10) and one hundred (100) year, 24-hour storm events of 2.4, 2.8, 4.2 and 6.0 inches respectively and Type II rainfall distribution.

5.10 Pre-development model calculations shall be based on the underlying hydrological soil group and the SCS Runoff Curve Numbers (RCNs) assigned in Table 1.

Table 1 – Pre–Development Runoff Curve Numbers

Hydrologic Soil Group	A	B	C	D	Impervious
Runoff Curve Number	39	61	74	80	98

5.11 Post-development model calculations shall be based on the underlying hydrological soil group and assigned SCS Runoff Curve Numbers (RCNs) for urban areas that are most appropriate to the proposed post-developed surface cover.

5.12 All RCNs used shall assume an undrained soil condition unless the sub-drainage system is publicly owned and maintained.

5.13 All projects creating one (1) or more acres of new impervious surface shall incorporate Low Impact Development (LID) practices into the project design to the extent that the pre-development one (1) year storm event runoff volume is not increased in the post-developed condition.
Examples of LID strategies to reduce runoff volumes may include:

A) Creating as much un-mowed natural area on the site as possible. RCNs are lower for wooded, meadow and buffer strip areas than mowed areas.
B) Minimizing new impervious surfaces wherever possible.
C) Directing roof drains and pavement drainage to natural areas rather than to streets, storm sewers and ditches to reduce the total area of connected impervious surface.
D) Using raingardens and natural depressions to retain runoff on-site.

5.14 Prior to construction, silt fences are required to surround natural areas and areas where infiltration practices will be located. These areas must be protected from construction activity, sediment and compaction. (These areas shall receive the same level of protection during construction as that given to Individual Sewage Treatment System (ISTS) septic sites).

5.15 If wet sedimentation basins are part of the stormwater management system, the basins shall be designed in compliance with the Walker Method (1987); and must have an armored emergency overflow set at the 100-year level. The top of pond berms must be at least 1-foot above the emergency overflow and be at least 10-feet wide to provide maintenance access. Pond outlets must have a skimming device. The minimum water quality volume that must be treated by the project's permanent storm water management system shall be one half (1/2) inch of runoff from the new impervious surfaces created by the project.

5.15 Public Drainage and Utility Easements are required for all storm water facilities, wetlands, buffer strips, floodplains and connecting drainage routes. All easements shall include a connection to a public road for access and maintenance.

5.16 Public drainage systems shall not rely upon the continued operation of a private drainage system (such as a tile line system). All storm water facilities must be designed assuming that private systems will no longer function unless a permanent easement is provided for future maintenance and a professional engineer has certified the private system has design capacity and service condition that make it suitable as a component of the public drainage system.

5.17 Structure Lowest Floor Elevations shall be based on the following:

In land-locked basins areas: The lowest floor elevation shall be the lesser of 1-foot above the surveyed basin overflow; or 3-feet above the high water level of the basin calculated assuming 100-year back to back events under full build-out conditions for the contributing watershed and assuming all private drainage systems no longer function.

Where the 100-year flood level has been established: The lowest floor elevation shall be the greater of at least 1-foot above the 100-yr flood elevation or 1-foot above the emergency overflow.

For public waters and public water wetlands (DNR protected water bodies) where the 100-yr flood elevation has not been established: The lowest floor elevation shall be at least 3 feet above the ordinary high water level (OHW).

In all other cases: The minimum floor elevation shall be at least 3 feet above the highest known water level.

5.18 Subject to Township approval, an applicant may also make an in-kind or a monetary contribution to the development and maintenance of community storm water management facilities designed to serve multiple land disturbing and development activities undertaken by one or more persons, including the applicant.

Section 6: Vegetated Buffer Protection Standards for Rivers, Streams and Wetlands

All projects discharging to Special Waters as defined in Minn. R. 7050.0180 shall comply with the additional requirements of the most current Appendix "A" of the NPDES Construction Permit. Where provisions of Appendix "A" conflict with the requirements elsewhere in this Ordinance, the provisions in Appendix "A" shall take precedence.

6.1 Any drainage, filling, excavation or other alteration of a wetland shall be conducted in compliance with Minnesota Statutes, Section 103G.245, the Wetland Conservation Act, and regulations adopted hereunder including the Department of Natural Resources (DNR) and the Corp of Engineers (COE). The applicant is responsible to research and obtain all applicable permits.

6.2 All construction stormwater discharges into waters of the state shall be in conformance with the most current NPDES Construction Permit and all other applicable local, state and federal regulations. The applicant is responsible to research, obtain permits and perform all work in compliance with all applicable requirements for discharges, including but not limited to:

A) Into or within 2000-feet of Special Waters (trout waters, fens, scientific natural areas, etc)
B) Into 303(d) impaired waters
C) Into outstanding resource value waters (ORVWs)
D) Into public waters and wetlands
E) Requiring further environmental review (EAW, EIS, AUAR etc)
F) Affecting endangered or threatened species
G) Affecting historic places or archeological sites
H) Dakota County Shoreland and Floodplain Districts

6.3 Wetland may be used for stormwater storage and treatment only if the use will not adversely affect the function and public value of the wetland as determined by the appropriate regulating governmental agency.

6.4 If any land disturbance is within two hundred (200) feet of a wetland, a wetland delineation report and functional assessment for vegetative diversity shall be submitted to the Township and appropriate regulating governmental agency for review and approval prior to Township issuance of a permit.

6.5 All structures shall have a minimum setback of 35-feet from the delineated edge of wetlands.

6.6 A permanent vegetative buffer strip, at least 25-feet in width, is required parallel to and adjoining all delineated wetland boundaries, water bodies, watercourses and streams to filter stormwater runoff. The Township may require wider buffers widths for the protection of higher value resources. Buffer strips are not required around storm water ponds or roadside ditches.

6.7 The first 25-feet of the buffer strip as measured from the water body, stream or wetland edge cannot be cleared, graded or otherwise disturbed during construction without prior written Township approval. Grading within the buffer for the purpose of accommodating house pad or yard elevations is prohibited. The buffer perimeter must be surrounded by silt fencing prior to construction. Adjacent construction grading or stormwater outlets must not channelize surface flows into or otherwise decrease the effectiveness of the buffer.

6.8 Preserving the existing acceptable vegetation within the buffer strip in an undisturbed state is required. Mowing is prohibited unless completed as part of an approved management plan. Acceptable vegetation consists of a continuous, dense layer of perennial grasses and/or an overstory of trees and shrubs that allows sheet-flow surface drainage to slowly pass to filter sediments and retain nutrients.

6.9 If unacceptable vegetation is to be removed within a buffer strip, it must be replaced with acceptable vegetation using an MnDOT, NRCS, or BWSR seed mixture and/or native trees and shrubs. This new vegetation must be established within a timeframe that minimizes bare soil exposure or other erosion-prone conditions. Unacceptable vegetation includes noxious weeds and plants, low density with bare soil areas, channelized flow or other condition making it unlikely to filter sediments and retain nutrients.

Section 7: Procedural Requirements

7.1 The Township shall only grant approval for work in compliance with this Ordinance.

7.2 The Township reserves the rights to withhold permit inspections and/or the issuance of new permits for sites that are in violation of any state or local regulations until such violations have been resolved.

7.3 The Township may, at its option, adopt a Fee Schedule and collect fees as reimbursement for its costs to conduct meetings, plan reviews, permit administration, inspection, enforcement and overall implementation of this Ordinance.

7.4 The issued permit only authorizes the work identified on the approved SWPPP and approved engineered construction plans. Disturbances outside of those identified on those approved plans are in violation of the permit and subject to enforcement actions.

7.5 The applicant shall not make field changes or modify the approved activity or plans without prior written authorizations from the Township. The Township may require the applicant to submit revised plans and/or additional information to evaluate the change.

7.6 The Township shall retain written records and approved plans.

7.7 The issuance of a permit based on approved plans, shall not prevent the Township from thereafter requiring the corrections of errors found in the plans or prevent corrective actions.

7.8 The Township may revoke an approved permit if it was issued in error or on the basis of incorrect information supplied or in violation of any provision of this Ordinance.

Section 8: Financial Securities

8.1 The Township may at its option require a supplemental Developers Agreement to define specific project requirements in addition to the requirements of this Ordinance.

8.2 If the Township requires a Developers Agreement for the project, a financial security to guarantee the performance of the SWPPP related work as required under this Ordinance shall be retained as a separate item from the balance of the project securities. The SWPPP security shall not be used as securities for other activities such as the earthwork, street construction, water, sanitary and storm sewer utilities, site amenities, etc.

8.3 The minimum amount of the SWPPP security held shall be based on three thousand ($3000) dollars per cumulative acre of land disturbance. For projects that discharge to a Special Waters, the minimum SWPPP security shall be increased to five thousand ($5000) dollars per cumulative acre of land disturbance. The Township may require additional SWPPP securities if needed.

8.4 Following a written notice, failure by the applicant to take appropriate action to complete SWPPP related work within the timeframe specified in the NPDES Construction Permit shall be considered sufficient cause for the Township to act against the SWPPP security. The Township shall use the security to finance any corrective or remedial work needed at the applicants expense including staff time, attorneys' fees.

8.5 If at anytime the SWPPP security falls below 50% of the required amount, the applicant shall restore the security to the required amount.

8.6 When the Ordinance has required the plans and calculations to be signed by a registered professional engineer, the applicant's engineer shall provide a written statement to the Township certifying the project is complete and was constructed as per the approved plans in compliance with this Ordinance.

The Township shall review the project for satisfaction of the permit requirements and issue a Certificate of Completion prior to releasing the SWPPP securities.

8.7 At the Township's option, the balance of the SWPPP security may be held until the expiration of the warranty period, if any.

Section 9: Variance

9.1 The Township may grant variances from the literal provisions of this Ordinance. However, a variance shall only be granted when the terms of the variance are consistent with and in harmony with the general purpose and intent of the Ordinance in cases where the strict enforcement of the Ordinance will cause undue hardship. Conditions may be imposed on a granted variance to limit its scope to only those portion of the Ordinance found to be a hardship.

9.2 "Hardship" as used in connection with the granting of a variance means the land in question cannot be put to a reasonable use if used under the conditions of the Ordinance; the plight of the applicant is unique to the land and not created by the applicant; and the variance, if granted will not adversely affect the essential character of the locality or other adjacent land. Economic consideration alone shall not constitute a hardship.

9.3 Variances must be submitted to the Township in writing and contain sufficient information to describe and support the practical difficulty or particular hardship claimed as the basis for the variance.

9.4 Prior to Township Board action, the Township shall submit a copy of the variance request to the North Cannon River Watershed Management Organization (NCRWMO) for review and comment. The review and comment period shall be no greater than 45 days. The Township must consider the NCRWMO's recommendations before deciding whether to grant the variance to the applicant.

9.5 The Township's variance response must be in writing, and include the justification for either granting or denying the requested variance.

9.6 The variance shall become void one (1) year after being granted, unless used.

9.7 If any of the variance's conditions are violated, the Township may revoke the variance.

Section 10: Enforcement

10.1 The Township shall be responsible enforcing this Ordinance.

10.2 Any person, firm, or corporation failing to comply with or violating any of these regulations, shall be deemed guilty of a misdemeanor and be subject to a fine or imprisonment or both. All permits issued by the Township, including land use and building permits may be suspended until the violation is resolved. Each day that a separate violation exists shall constitute a separate offense.

Section 11: Right of Entry and Inspection

11.1 The applicant shall allow the Township and their authorized representatives, upon presentation of credentials to:

A.) Enter upon the permitted site for the purpose of obtaining information, examination of records and conducting investigations or surveys.
B.) Bring such equipment upon the permitted development as is necessary to conduct such surveys and investigations.
C.) Examine and copy any books, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of this permitted site.
D.) Inspect the storm water pollution control measures required by the Township.
E.) Sample and monitor any items or activities pertaining to permits issued by the Township.

Section 12: Abrogation and Greater Restrictions

12.1 The Ordinance provisions are not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Ordinance imposes greater restrictions, the provisions of this Ordinance shall prevail. All other Ordinances inconsistent with this Ordinance are hereby repealed to the extent of the inconsistency only.

Section 13: Severability

13.1 The provisions of this Ordinance are severable, and if any provisions of this Ordinance, or application of any provision of this Ordinance to any circumstance, are held invalid, the application of such provision to other circumstances, and the remainder of this Ordinance must not be affected thereby.

Section 14: Effective Date

14.1 This Ordinance will take effect and be in force after its passage and official publication.

Adopted this 1 day of MAY, 2006 by the Town Board of Douglas Township, Minnesota

Daniel R. Remmert, Chairman

ATTEST:

Ralph Schmid, Township Clerk