

SECTION 1107.21 STORM WATER MANAGEMENT PRACTICES.

1107.21 SUBD. 1. FINDINGS.

The City of Belle Plaine hereby finds that uncontrolled and inadequately planned use of wetlands, woodlands, natural habitat areas, areas subject to soil erosion and areas containing restrictive soils adversely affects the public health, safety and general welfare by impacting water quality and contributing to other environmental problems, creating nuisances, impairing other beneficial uses of environmental resources and hindering the ability of the City of Belle Plaine to provide adequate water, sewage, flood control and other community services. In addition, extraordinary public expenditures may be required for the protection of persons and property in such areas and in areas which may be affected by unplanned land usage.

1107.21 SUBD. 2. PURPOSE.

The purpose of this Section is to promote, preserve and enhance the natural resources within the City of Belle Plaine and protect them from adverse effects occasioned by poorly sited development or incompatible activities by regulating land disturbances or development activities that would have an adverse and potentially irreversible impact on water quality and unique and fragile environmentally sensitive land. The purpose is also to control or eliminate storm water pollution along with soil erosion and sedimentation in the City. The City intends to minimize conflicts and encouraging compatibility between land disturbances and development activities and water quality and environmentally sensitive lands; and requiring detailed review standards and procedures for land disturbing or development activities proposed for such areas, thereby achieving a balance between urban growth and development and protection of water quality and natural areas. It establishes standards and specifications for conservation practices and planning activities, which minimize storm water pollution, soil erosion and sedimentation.

1107.21 SUBD. 3. SCOPE AND EFFECT.

1. APPLICABILITY.

Every applicant for a permit to allow land disturbing activities must submit a storm water management plan to the City. No permit to all land disturbing activities shall be issued until approval of the storm water management plan or a waiver of the approval requirement has been obtained in conformance with the provisions of this Section. At a minimum, these pollution abatement practices must conform to those in the current version of the Minnesota Pollution Control Agency's publication "Protecting Water Quality in Urban Areas".

2. EXEMPTIONS.

The provisions of this Section do not apply to:

- A. Any land disturbing activity for which plans have been approved by the watershed management organization within six (6) months prior to the effective date of this Section.
- B. A lot for which a building permit has been approved on or before the effective date of this Section.
- C. Installation of fence, sign, telephone and electric poles and other kinds of posts or poles;
- D. Emergency work to protect life, limb or property.

3. WAIVER.

The City Council, upon recommendation of the Planning and Zoning Commission, may waive any requirement of this Section upon making a finding that compliance with the requirement will involve an unnecessary hardship and the waiver of such requirement will not adversely affect the standards and requirements set forth in this Section. The City Council may require as a condition of the waiver, such dedication or construction, or agreement to dedicate or construct as may be necessary to adequately meet said standards and requirements.

4. GENERAL POLICY.

For rivers and streams, storm water discharge rates from storm water treatment basins shall not increase over the predevelopment two (2) year, ten (10) year and one hundred (100) year peak storm discharge rates, based on the last ten (10) years of how that land was used. Also, accelerated channel erosion must not occur as a result of the proposed activity. For discharges to wetlands, volume control is generally more important than discharge rate control.

5. GRADING PLAN.

The storm water management plan's measures, the limit of disturbed surface and the location of buffer areas shall be marked on the approved grading plan, and identified with flags, stakes, signs etc. on the development site before work begins.

1107.21 SUBD. 4. STORM WATER MANAGEMENT PLAN APPROVAL PROCEDURES.

1. APPLICATION.

A written application for storm water management plan approval, along with the proposed storm water management plan, shall be filed with the Zoning Administrator and shall include a statement indicating the grounds upon which the approval is requested, that the proposed use is permitted by right or as an exception in the underlying zoning district, and adequate evidence showing that the proposed use will conform to the standards set forth in this Section. Prior to applying for approval of a storm water management plan, an applicant may have the storm water management plans reviewed by the appropriate departments of the City.

Two sets of clearly legible blue or black lined copies of drawings and required information shall be submitted to the Zoning Administrator and shall be accompanied by a receipt evidencing the payment of all required fees for processing and approval as set forth in Section 1107.21 Subd. 5, (6), and a bond when required by Section 1107.21 Subd. 5, (5) in the amount to be calculated in accordance with that subsection.

Drawings shall be prepared to scale appropriate to the site of the project and suitable for the review to be performed. At a minimum the scale shall be one (1) inch equals one hundred (100) feet.

2. STORM WATER MANAGEMENT PLAN.

At a minimum, the storm water management plan shall contain the following information:

- A. Existing Site Map: A map of existing site conditions showing the site and immediately adjacent areas, including:
1. The name and address of the applicant; a legal description of the property directly associated with the request; north point; date; scale of drawing; and number of sheets;
 2. Location of the tract by an insert map at a scale sufficient to clearly identify the location of the property and giving such information as the names and numbers of adjoining roads, railroads, utilities, subdivisions, towns and districts or other landmarks;
 3. Existing topography with a contour interval appropriate to the topography of the land;
 4. A delineation of all streams, rivers, public waters, and wetlands located on and immediately adjacent to the site, including depth of water, a description of vegetation which may be found in the water, a statement of general water quality, and any classification given to the water body or wetland by the Minnesota Department of Natural Resources, the Minnesota Pollution Control Agency, and/or the United States Army Corps of Engineers;
 5. Location and dimensions of existing storm water drainage systems and natural drainage patterns on and immediately adjacent to the site delineating in which direction and at what rate storm water is conveyed from the site, identifying the receiving stream, river, public water, or wetland, and setting forth those areas of the unaltered site where storm water collects;
 6. Vegetative cover and clearly delineating any vegetation proposed for removal; and,
 7. One hundred (100) year floodplains, flood fringes and floodways.
- B. Site Construction Plan: A site construction plan including:
1. Locations and dimensions of all proposed land disturbing activities and any phasing of those activities;
 2. Locations and dimensions of all temporary soil or dirt stockpiles;
 3. Locations and dimensions of all construction site erosion control measures necessary to meet the requirements of this Section;

4. Schedule of anticipated starting and completion date of each land disturbing activity including the installation of construction site erosion control measures needed to meet the requirements of this Section; and,
 5. Provisions for maintenance of the construction site erosion control measures during construction.
- C. Plan of Final Site Conditions: A plan of final site conditions on the same scale as the existing site map showing the site changes including:
1. Finished grading shown at contours at the same interval as provided above or as required to clearly indicate the relationship of proposed changes to existing topography and remaining features;
 2. A drainage plan of the developed site delineating in which direction and at what rate storm water will be conveyed from the site and settling forth the areas of the site where storm water will be allowed to collect;
 3. The proposed size, alignment and intended use of any structures to be erected on the site;
 4. Any other information pertinent to the particular project, which in the opinion of the applicant, is necessary for the review of the project.
 5. If a storm water management plan involves direction of some or all runoff off the site, the applicant shall obtain any easements or other property interests needed to establish the required drainage facilities from the adjacent property owner or owners. This is necessary in order for the city to provide the proper maintenance and long-term protection and operation of facilities created for the public benefit and constructed and permitted by the City. The stormwater management plan shall identify responsibility for future maintenance of the stormwater facilities.

(Ord. 11-11, Sections 1107.21, 1109.08, 1205.07, Adopted December 5, 2011.)

1107.21 SUBD. 5. PLAN REVIEW PROCEDURE.

1. PROCESS.

Storm water management plans meeting the requirements of Section 1107.21 Subd. 4 shall be submitted by the Zoning Administrator to the City Engineer and the Planning and Zoning Commission for review in accordance with the standards of Section 1107.21 Subd. 6. The Planning and Zoning Commission shall recommend approval, recommend approval with conditions, or recommend denial of the storm water management plan to the City Council. Where additional control measures are needed, they will be specified at the discretion of the City Engineer. Following Planning and Zoning Commission action, the storm water management plan shall be submitted to the City Council at its

next available meeting. City Council action on the storm water management plan must be accomplished within sixty (60) days following the date the application for approval is filed with the Zoning Administrator.

2. DURATION.

Approval of a plan submitted under the provisions of this Section shall expire one (1) year after the date of approval unless construction has commenced in accordance with the plan. However, if prior to the expiration of the approval, the applicant makes a written request to the Zoning Administrator for an extension of time to commence construction setting forth the reasons for the requested extension, the City Council may grant one extension of not greater than one (1) year. Receipt of any request for an extension shall be acknowledged by the Zoning Administrator within fifteen (15) days. The Zoning Administrator, after consulting with the City Engineer and the Public Works Department, shall make a decision on the extension within thirty (30) days of receipt. Any plan may be revised in the same manner as originally approved.

3. CONDITIONS.

A storm water management plan may be approved subject to compliance with conditions reasonable and necessary to insure that the requirements contained in this Section are met. Such conditions may, among other matters, limit the size, kind or character of the proposed development; require the construction of structures, drainage facilities, storage basins, and other facilities; require replacement of vegetation; establish required monitoring procedures; stage the work over time; require alternation of the site design to insure buffering; and require the conveyance to the City or other public entity of certain lands or interests therein.

4. INSPECTIONS.

At a minimum, inspections of the storm water management plan shall be done weekly by the City Engineer or a designated City employee, and after every storm or snow melt event large enough to result in runoff from the site.

In all cases, the inspectors will attempt to work with the applicant and/or builder to maintain proper erosion and sediment control at all sites. In cases where cooperation is withheld, construction stop work orders may be issued by the City, until erosion and sediment control measures meet specifications.

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

1. Enter upon the permitted site for the purpose of obtaining information, examination of records and conducting investigations or surveys.
2. Bring such equipment upon the permitted development as is necessary to conduct such surveys and investigations.

3. 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.
4. Inspect the storm water pollution control measures.
5. Sample and monitor any items or activities pertaining to storm water pollution control measures.

5. FINANCIAL SECURITIES.

The total security amount in the project's development agreement with the City shall also provide security for the performance of the work approved by the City in the storm water management plan and any storm water management plan related remedial work, if the development agreement's security totals three thousand dollars (\$3,000) per acre for the maximum acreage of soil that will simultaneously be exposed during the project's construction. If this security is less than the three thousand dollars (\$3,000) per acre value, then it shall be increased to at least that amount.

The City may request a greater financial security, if the City considers that the development site is especially prone to erosion, or the resource to be protected is especially valuable.

1. If at anytime during the course of the work, the secured amount falls below fifty (50) percent of the required deposit, the applicant shall make another deposit in the amount necessary to restore the deposit to the required amount within thirty (30) days. Otherwise the City may:
 - a. Withhold the scheduling of inspections and/or the issuance of a Certificate of Occupancy.
 - b. Revoke any permit issued by the City to the applicant for the site in question and any other of the applicant's sites within the City's jurisdiction.
2. When more than one-half (1/2) of the applicant's maximum exposed soil area achieved final stabilization, the City can reduce the total required amount of the financial security by one-half (1/2), if recommended by the City Engineer.
3. The City may act against the financial security any for the conditions listed below exist. The City shall use funds from this security to finance any corrective or remedial work undertaken by the City or a contractor under contract to the City and to reimburse the City for all direct costs incurred in the process of remedial work including, but not limited to staff time and attorney's fees.
 - a. The applicant ceases land disturbing activities and/or filling and abandons the site prior to completion to the grading plan.
 - b. The applicant fails to conform to any City approved grading plan and/or the storm water management plan as approved by the City.

- c. The techniques utilized under the storm water management plan fail within one (1) year of installation.
 - d. The applicant fails to reimburse the City for corrective action.
 4. If circumstances exist such that noncompliance with this Section poses an immediate danger to public health, safety and welfare, as determined by the City Engineer, the City may take emergency preventative action. The City shall also take every reasonable action possible to contact and direct the applicant to take any necessary action. Any cost to the City may be recovered from the applicant's financial security.
 5. Any unspent amount of the financial security deposited with the City for faithful performance of the storm water management plan and any remedial work must be released not more than one (1) year after the completion of the installation of all such measures and establishment of final stabilization.

6. FEES.

All applications for storm water management plan approval shall be accompanied by a processing and approval fee as specified by the City Council through ordinance.

1107.21 SUBD. 6. APPROVAL STANDARDS.

1. STANDARDS REQUIRED.

No storm water management plan which fails to meet the standards contained in this Section shall be approved by the City Council.

2. SITE DEWATERING.

Water pumped from the site shall be treated by temporary sedimentation basins, grit chambers, sand filters, upflow chambers, hydro-cyclones, swirl concentrators or other appropriate controls as appropriate. Water may not be discharged in a manner that causes erosion or flooding of the site or receiving channels or a wetland.

3. WASTE AND MATERIAL DISPOSAL.

All waste and unused building materials, including but not limited to, garbage, cleaning wastes, debris, wastewater, toxic materials or hazardous materials, shall be properly disposed of off-site and not allowed to be carried by runoff into a receiving channel or storm sewer system.

4. ENTRANCES AND CLEANING.

Each site shall have graveled roads, access drives, and parking areas of sufficient width and length to prevent sediment from being tracked onto public or private roadways. Any

sediment reaching a public or private road shall be removed by street cleaning (not flushing) before the end of each workday.

5. DRAIN INLET PROTECTION.

All storm drain inlets shall be protected during construction until control measures are in place with a straw bale, silt fence or equivalent barrier meeting accepted design criteria, standards, and specifications contained in the Minnesota Pollution Control Agency publication entitled "Protecting Water Quality in Urban Areas".

6. SITE EROSION CONTROL.

The following criteria (A through C) apply only to construction activities that result in runoff leaving the site.

- A. Channeled runoff from adjacent areas passing through the site shall be diverted around disturbed areas, if practical. Diverted runoff shall be conveyed in a manner that will not erode the conveyance and receiving channels.
- B. All activities on the site shall be conducted in a logical sequence to minimize the area of bare soil exposed at any one time.
- C. Runoff from the entire disturbed area on the site shall be controlled by meeting either Subsection 1 and 2 or 1 and 3:
 - 1 . All disturbed ground left inactive for fourteen (14) or more days shall be stabilized by seeding or sodding (only available prior to September 15) or by mulching or covering or other equivalent control measure.
 2. For sites with more than ten (10) acres disturbed at one time, or if a channel originates in the disturbed area, one (1) or more temporary or permanent sedimentation basins shall be constructed. Each sedimentation basin shall have a surface area of at least one (1) percent of the area draining to the basin and at least three (3) feet of depth and constructed in accordance with accepted design specifications. Sediment shall be removed to maintain a depth of three (3) feet. The basin discharge rate shall also be sufficiently low as to not cause erosion along the discharge channel or the receiving water.
 - 3 . For sites with less than ten (10) acres disturbed at one time, silt fences, straw bales, or equivalent control measures shall be laced along all sideslope and downslope sides of the site. If a channel or area of concentrated runoff passes through the site, silt fences

shall be placed along the channel edges to reduce sediment reaching the channel. The use of silt fences, straw bales, or equivalent control measures must include a maintenance and inspection schedule.

7. VEGETATED BUFFER PROTECTION.

At the minimum a vegetated buffer strip on each bank the width of either the one hundred (100) -year floodplain or one hundred (100) feet whichever is larger, shall be provided. If possible such a buffer strip shall consist of predevelopment native vegetation. Buffer width shall be increased at least two (2) feet [four (4) feet for wetlands] for every one (1) percent of slope of the surrounding land. Natural wetlands adjacent to rivers and streams are not counted as buffers, and therefore their widths are not counted as part of the channel's buffer strip. Such wetlands rate their own forty (40) foot plus vegetated buffer strip.

1. Detailed buffer design is usually site specific. Therefore the City Engineer may require a larger buffer than the minimum.
2. For newly constructed buffer sites, the design criteria should follow common principles and the example of nearby natural areas. The site should be examined for existing buffer zones and mimic the slope structure and vegetation as much as possible.
3. The applicant or designated representative shall maintain the buffer strip for the first year. After that time period, the City, or a party designated by the City, shall maintain the buffer strip.
4. Drain tiles will short-circuit the benefits of vegetated buffer strips. Therefore drain tiles on the development site shall be identified and rendered inoperable.
5. Buffer strips can be made into perpetual conservation easements.
6. Buffer strips shall be marked as such with permanent markers.
7. The City Engineer may allow buffer area averaging in cases where averaging will provide additional protection to either the resource or environmentally valuable adjacent upland habitat

Water courses used solely for drainage, such as road ditches, are exempt from this Subdivision.

8. STORM WATER MANAGEMENT CRITERIA FOR PERMANENT FACILITIES.

- A. An applicant shall install or construct, on or for the proposed land disturbing or development activity, all storm water management facilities necessary to manage increased runoff so that the two (2) -year, ten (10) -year, and one hundred (100) -year storm peak discharge rates existing before the proposed development shall not be increased, and accelerated channel erosion will not occur as a result of the proposed land disturbing or development activity. An applicant may also make an in-kind or 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 (1) or more persons, including the applicant.

- B. The applicant shall give consideration to reducing the need for storm water management facilities by incorporating the use of natural topography and land cover such as wetlands, ponds, natural swales, and depressions as they exist before development to the degree that they can accommodate the additional flow of water without compromising the integrity or quality of the wetland or pond.

9. DESIGN STANDARDS.

Storm water detention facilities constructed in the City of Belle Plaine shall be designed according to the standards within the City of Belle Plaine Surface Water Management Plan, and shall contain, at a minimum, the following design factors:

- A. A permanent pond surface area equal to two (2) percent of the impervious area draining to the pond or one (1) percent of the entire area draining to the pond, whichever amount is greater;
- B. An average permanent pool depth of four (4) to ten (10) feet; and,
- C. A minimum protective shelf extending ten (10) feet into the permanent pool with a slope of ten-to-one (10:1), beyond which slopes should not exceed a three-to-one (3:1) ratio.

10. WETLANDS.

Rules and regulations applicable to wetlands and set forth by the Minnesota Wetland Conservation Act and Federal Clean Water Act are hereby incorporated. Runoff must not be discharged directly into wetlands without appropriate quality runoff control, depending on the individual wetland's vegetation sensitivity. Wetlands must not be drained or filled, wholly or partially, unless replaced by either restoring or creating wetland areas of at least equal public value.

11. STEEP SLOPES.

Land disturbing or development activities on steep slopes shall be regulated in accordance with Section.

12. MODELS/METHODOLOGIES/COMPUTATIONS.

Hydrologic models and design methodologies used for the determination of runoff and analysis of storm water management structures shall be approved by the City Engineer. Plan specification and computations for storm water management facilities submitted for review shall be sealed and signed by a registered professional engineer. All

computations shall appear on the plans submitted for review, unless otherwise approved by the City Engineer.

13. WATERSHED MANAGEMENT AND GROUNDWATER MANAGEMENT PLANS.

Storm water management plans shall be consistent with adopted watershed management plans and groundwater management plans prepared in accordance with State law and as approved by the Minnesota Board of Water and Soil Resources in accordance with state law.

14. OTHER PERMITS REQUIRED.

All sand, gravel or other mining operations taking place on the development site shall have a Minnesota Pollution Control Agency National Pollutant Discharge Elimination System General Storm Water permit for industrial activities and all required Minnesota Department of Natural Resource permits.

15. EASEMENTS.

If a storm water management plan involves direction of some or all runoff off the site, the applicant shall obtain any easements or other property interests needed to establish the required drainage facilities from the adjacent property owner or owners. This is necessary in order for the city to provide the proper maintenance and long-term protection and operation of facilities created for the public benefit and constructed and permitted by the City. The stormwater management plan, or other permit or agreement governing site runoff, shall identify responsibility for future maintenance of the stormwater facilities.

(Ord. 11-11, Sections 1107.21, 1109.08, 1205.07, Adopted December 5, 2011.)

1107.21 SUBD. 7. LAWN FERTILIZER REGULATIONS.

1. This Subdivision shall apply to all land, public and private, located in the City of Belle Plaine.
2. No person shall apply fertilizer to or deposit grass clippings, leaves, or other vegetative materials on impervious surfaces, or within storm water drainage systems, natural drainage ways, or within wetland buffer areas.
2. Except for driveways, sidewalks, patios, areas occupied by structures, or areas which have been improved by landscaping, all areas shall be covered by plants or vegetative growth.
3. Fertilizer applications shall not be made within one rod, sixteen and one-half (16.5) feet of any wetland or water resource.

1107.21 SUBD. 8. OTHER CONTROLS.

In the event of any conflict between the provisions of this Section and the provisions of Sections 1105.17 and 1105.18, the more restrictive standard shall prevail.

(Ord. 11-11, Sections 1107.21, 1109.08, 1205.07, Adopted December 5, 2011.)