

MODEL POST-CONSTRUCTION STORMWATER RUNOFF CONTROL ORDINANCE
[UNOFFICIALLY BUT COMMONLY CALLED THE "POST-CON ORDINANCE"]

ORDINANCE NO. _____

ORDINANCE AMENDING THE CODE OF ORDINANCES, CITY¹ OF _____,
_____, BY ADDING CHAPTER _____,
"POST-CONSTRUCTION STORMWATER CONTROL"

Section 1. THE CODE OF ORDINANCES, CITY OF _____,
_____ is hereby amended to add CHAPTER _____ "POST-CONSTRUCTION STORMWATER CONTROL," in the form attached hereto.

Section 2. Repealer Clause. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 3. Severability Clause. If any section, provision or part of this ordinance shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of the ordinance as a whole or any section, provision or part thereof not adjudged invalid or unconstitutional.

Section 4. Effective Date. This ordinance shall be effective from and after the final passage, approval and publication as provided by law.

PASSED AND APPROVED this ____ day of _____, 20 ____.

Mayor

(SEAL)

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney²

I, _____, City Clerk of the City of _____,
_____, Iowa, do hereby certify that the foregoing ORDINANCE was passed and approved by the City Council of the City of _____
_____, Iowa, on the ____ day of _____, 20 ____, and was published in the _____
_____, a newspaper of general circulation in the said City of _____, on the ____ day of
_____, 20__.

Dated this ____ day of _____, 20 ____.

City Clerk

¹ IMPORTANT NOTE: For drafting purposes, this ordinance has been prepared for adoption by a city; however, with appropriate modifications it may serve as a model for other governmental subdivisions as well.

² This model ordinance is furnished as a drafting guide for attorneys representing governmental subdivisions in Iowa that are subject to NPDES Permit Program requirements. CAVEAT: THIS MODEL ORDINANCE SHOULD NOT BE ADOPTED WITHOUT CONFIRMING INDEPENDENT LEGAL RESEARCH BY AN ATTORNEY LICENSED TO PRACTICE LAW IN IOWA. LOCAL CIRCUMSTANCES WILL VARY SIGNIFICANTLY FROM JURISDICTION TO JURISDICTION. CONSIDERATION OF SUCH AN ORDINANCE CALLS FOR CAREFUL ANALYSIS AND DETERMINATION OF A NUMBER OF CRITICAL POLICY ISSUES BY THE GOVERNING BODY OF THE JURISDICTION.

This third version of a model ordinance was updated by the Iowa Stormwater Education Partnership in 2018. The original was created in 2007 and updated in 2014 by the Iowa Stormwater Education Program at IAMU through a committee with funding provided by IDNR 319 funds.

CHAPTER _____, POST-CONSTRUCTION STORMWATER MANAGEMENT

Section 1. General Provisions

1.1. Findings of Fact

- 1.1.1 The U.S. E.P.A.'s National Pollutant Discharge Elimination System ("NPDES") permit program (Program) administered by the Iowa Department of Natural Resources ("IDNR") requires that cities meeting certain demographic and environmental impact criteria obtain from the IDNR an NPDES permit for the discharge of storm water from a Municipal Separate Storm Sewer System (MS4) (MS4 Permit).³ The City of _____ (City) is subject to the Program and is required to obtain, and has obtained, an MS4 Permit; the City's MS4 Permit is on file at the office of the city clerk and is available for public inspection during regular office hours.
- 1.1.2 As a condition of the City's MS4 Permit, the City is obliged to adopt and enforce a POST-CONSTRUCTION STORMWATER CONTROL ordinance.
- 1.1.3 No state or federal funds have been made available to assist the City in administering and enforcing the Program. Accordingly, the City shall fund its operations under this ordinance entirely by charges imposed on the owners or developers of properties which are made subject to the Program by virtue of state and federal law, and/or other sources of funding established by a separate ordinance.⁴
- 1.1.4 Land development and associated increases in impervious cover alter the hydrologic response of local watersheds resulting in increased stormwater runoff rates and volumes, flooding, stream channel erosion, and sediment transport and deposition. This stormwater runoff contributes to increased quantities of water-borne pollutants. Stormwater runoff, soil erosion and nonpoint source pollution can be controlled and minimized through the regulation of stormwater runoff from development sites.
- 1.1.5 Therefore, City establishes this set of City stormwater requirements to provide reasonable guidance for the regulation of stormwater runoff for the purpose of protecting local water resources from degradation. It is determined that the regulation of stormwater runoff discharges from land development and other construction activities in order to control and minimize increases in stormwater runoff rates and volumes, soil erosion, stream channel erosion, and nonpoint source pollution associated with stormwater runoff, is in the public interest and will prevent threats to public health and safety.
- 1.1.6 The determination of appropriate minimum stormwater management standards (standards) and the development of effective best management practices (BMPs) to achieve those standards requires technical expertise that may not always be readily available within City's own staff. Moreover, it is important that such standards and BMPs be reasonably consistent across the state so that property owners and developers are not confronted with myriad variations depending upon the location of development. The

³ Statewide stormwater program information can be found:
<http://www.iowadnr.gov/InsideDNR/RegulatoryWater/NPDESSStormWater.aspx>

⁴ A city may choose to create a stormwater utility in conjunction with a stormwater fee ordinance as a means of providing a source of funding in addition to or in lieu of the administrative cost recovery mechanism suggested herein.

“Iowa Stormwater Management Manual”⁵ published by the Iowa Department of Natural Resources establishes guidelines consisting of unified sizing criteria, stormwater management designs and specifications and BMPs and “Iowa’s River Restoration Toolbox”⁵ published by the Iowa Department of Natural Resources establishes guidelines consisting of a series of best management practices developed to assist designers in stream stabilization and restoration projects in Iowa with proven techniques with emphasis on incorporating natural materials, such as logs, stone, and live plantings.

City hereby finds and declares that the guidelines provided for in the Iowa Stormwater Management Manual and Iowa’s River Restoration Toolbox, and in future editions thereof, should be and are hereby adopted as the stormwater management and river restoration standards of City as well as any City supplemental standards. Any BMP installation that complies with the provisions of the Iowa Stormwater Management Manual and Iowa’s River Restoration Toolbox, or future editions thereof, at the time of installation shall be deemed to have been installed in accordance with this ordinance.

1.2. Purpose: The purpose of this ordinance is to adopt as City’s standards the guidelines established in the Iowa Stormwater Management Manual (hereinafter collectively City’s “stormwater requirements” or “standards”) and Iowa’s River Restoration Toolbox (hereinafter collectively city’s “river restoration standards”) in order to protect and safeguard the general health, safety, and welfare of the public within this jurisdiction. This ordinance seeks as well to meet that purpose through consideration of the following objectives:

- 1.2.1 minimize increases in stormwater runoff from development within the city limits and fringe area in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion, and maintain the integrity of stream channels;
- 1.2.2 minimize increases in nonpoint source pollution caused by stormwater runoff from development which would otherwise degrade local water quality;
- 1.2.3 minimize the total annual volume of surface water runoff which flows from any specific development project site after completion to not exceed the pre-development hydrologic regime to the maximum extent practicable; and
- 1.2.4 reduce stormwater runoff rates and volumes to predevelopment rates as specified, soil erosion and nonpoint source pollution, wherever possible, through establishment of appropriate minimum stormwater management standards and BMPs and to ensure that BMPs are properly maintained and pose no threat to public safety.
- 1.2.5 install river restoration practices that successfully meet the restoration goals.

1.3. Applicability

- 1.3.1 This ordinance shall be applicable to all subdivision or site plan applications meeting the minimum square foot applicability criteria of §1.3.2, unless eligible for an exemption or granted a waiver by City under Section 4 of this ordinance. The ordinance also applies to land disturbance activities that are smaller than the minimum square foot applicability criteria specified in §1.3.2 if such activities are part of a larger common plan of development that meets the minimum square foot applicability criteria of §1.3.2, even

⁵ The Iowa Department of Natural Resources (IDNR) developed the Iowa Stormwater Management Manual and Iowa’s River Restoration Toolbox. The manual includes guidelines for stormwater quality and quantity management that can be adopted in part or in whole by local jurisdictions. The toolbox includes guidelines for river restoration that can be adopted in part or whole. This model ordinance is drafted to adopt the manual and toolbox in its entirety.

though multiple separate and distinct land development activities may take place at different times on different schedules. In addition, all plans must also be reviewed by local environmental protection officials to ensure that established water quality standards will be maintained during and after development of the site and that post construction runoff levels are consistent with any local and regional watershed plans.

- 1.3.2 City stormwater requirements must be met for development to be approved. City stormwater requirements apply to any development disturbing _____⁶ or more square feet of land, and to any development disturbing less than said number of square feet of land if the amount of impervious cover created exceeds _____ square feet. The following activities are exempt from this ordinance:
 - 1.3.2.1 Any logging and agricultural activity which is consistent with an approved soil conservation plan or a timber management plan prepared or approved by the (appropriate agency), as applicable.
 - 1.3.2.2 Additions or modifications to existing single family structures.
 - 1.3.2.3 Developments that do not disturb more than _____ square feet of land provided they are not part of a larger common development plan.
 - 1.3.2.4 Repairs to any stormwater BMPs deemed necessary by City.
- 1.3.3 When a site development plan is submitted that qualifies as a development as defined in Section 2 of this ordinance, decisions on permitting and appropriate on-site BMPs shall be made in accordance with the Iowa Stormwater Management Manual. Final authorization of all development and redevelopment projects will be determined after a review by City.

1.4 Use Better Site Design to preserve natural areas, reduce impervious cover, distribute runoff and use of pervious surface for treatment of stormwater runoff. More information can be found at www.cwp.org. This shall include the following:

- 1.4.1 Protection and restoration of open space by conserving existing natural areas, reforestation, re-establishment of prairies, wetland restoration, establishment or protection of stream, shoreline, and wetland buffers and re-establishment of a native vegetation into the landscape;
- 1.4.2 Reduction of impervious cover by reducing new impervious surfaces, minimizing street width, parking space width, driveway length, and sidewalk width;
- 1.4.3 Distribute and minimize runoff by utilizing vegetated areas for stormwater treatment as well as direct impervious runoff to vegetated areas or treatment areas such as roofs and parking lots, and encourage infiltration and soil storage of runoff through grass channels, bioswales, bioretention cells and rain gardens etc. Plant vegetation that does not require irrigation beyond natural rainfall.
- 1.4.4 Capture and store runoff for irrigation.

1.5. Compatibility with Other Permit and Ordinance Requirements.

- 1.5.1 It is intended that this ordinance be construed to be consistent with previously adopted City Code CHAPTER _____, CONSTRUCTION SITE EROSION AND SEDIMENT

⁶ Federal law mandates that this ordinance apply to land disturbance activities of at least one acre (43,560 square feet) or more. See Storm Water Phase II Final Rule (www.epa.gov/npdes/regulations/phase2.pdf). For sites less than the threshold number of square feet specified immediately above but which nevertheless create a substantial new amount of impervious cover (e.g., 5000 square feet of impervious cover), local officials may wish to make the guidelines apply. In any event, the number specified in this §1.3.2 must coincide with the number of square feet specified in §1.3.2.3 and in the definition of “development” in §2.

CONTROL, and CHAPTER _____, ILLICIT DISCHARGE TO STORM SEWER SYSTEM”.⁷

- 1.5.2 The requirements of this ordinance should be considered minimum requirements, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

Section 2. Definitions. Terms in this ordinance other than those defined below shall have the meanings set out in the Iowa Stormwater Management Manual.

“**Applicant**” means a property owner or agent of a property owner who has filed an application for a stormwater management permit.

“**BMP**” means Best Management Practice that are physical practices or structures determined to be the most efficient practices used to reduce pollutant loads and runoff volumes/rates.

“**Buffer**” means a vegetative area, including desirable trees, shrubs and herbaceous plants that exists or is established to protect a stream, lake or reservoir.

“**Building**” means any structure, either temporary or permanent, having walls and a roof, designed for the shelter of any person, animal, or property, and occupying more than 100 square feet of area.

“**Channel Protection Storage Volume**” means providing for practices that will allow for extended detention of the runoff generated by a 1-year, 24-hour event. This means capturing the runoff volume from a storm of this nature, and slowly releasing it over a period of no less than 24-hours to reduce the rapid “bounce” effect common in many urban streams that leads to downcutting and streambank erosion.

“**City Stormwater Requirements**” or “standards” mean the guidelines provided for in the Iowa Stormwater Management Manual.

“**Concept Plan**” means plans that shall be submitted for review during the planning process. It should be showing conceptually where stormwater BMPs will be located and how stormwater will be routed to facilities.

“**Dedication**” means the deliberate appropriation of property by its owner for general public use.

“**Developer**” means a person who undertakes land disturbance activities.

“**Development**” means either:

land disturbance activity exceeding _____ square feet on land previously vacant of buildings or largely free of previous land disturbance activity other than traditional agricultural activities;

or land disturbance activity exceeding _____ square feet in areas where existing land use is high density commercial, industrial, institutional or multi-family residential (a.k.a. “redevelopment”).

“**Drainage Easement**” means a legal right granted by a landowner to a grantee allowing the use of private land for stormwater management purposes.

⁷ Some cities have chosen to incorporate provisions dealing with (1) construction site erosion and sediment control, and (2) illicit discharges, into existing ordinances controlling site development, subdivision, grading or related matters, rather than adopting separate ordinances dealing with these subjects. Such cities should modify this subsection 1.4 to reference their correct corollary city code provisions.

“Enforcement Officer” means that person or persons designated by the City having responsibility for administration and enforcement of this ordinance.⁸

“Extreme Flood Protection” means managing the effects of larger storm events (10% to 1% annual recurrence or expressed in the past as the 10-year to 100-year recurrence intervals) on the stormwater management system, adjacent property, and downstream facilities and property. The impacts of these extreme events is accomplished using detention controls and/or floodplain management.

“Fee in Lieu” means a payment of money in place of achieving or exceeding all or part of City stormwater requirements.⁹

“Final Plan” means the final stormwater management plan that should be submitted for final review and should show final design details of BMPs and construction specifications.

“Infiltration-based BMPs” means that at a minimum the water quality volume moves through the soil media to provide filtration and removal of pollutants.

“Iowa Stormwater Management Manual” means the manual developed and updated by the Iowa Department of Natural Resources (IDNR) that contains the unified sizing criteria, design and specification guidelines and BMPs that address stormwater quality and quantity management.

“Iowa River Restoration Toolbox” means the design guidance and specification developed and updated by the Iowa Department of Natural Resources that contains a series of best management practices developed to assist designers in stream stabilization and restoration projects in Iowa with proven techniques with emphasis on incorporating natural materials, such as logs, stone, and live plantings.

“Land Disturbance Activity” means any activity which changes the volume or peak flow discharge rate of rainfall runoff from the land surface. This may include the grading, digging, cutting, scraping, or excavating of soil, placement of fill materials, paving, construction, substantial removal of vegetation, or any activity which bares soil or rock or involves the diversion or piping of any natural or man-made watercourse.

“Landowner” means the legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land.

“Maintenance Agreement” means a legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of storm water BMPs.

“Native Landscaping or Vegetation” means vegetation originating naturally in this region of the state and does not contain noxious or invasive weeds. It is not to be confused with existing vegetation.

“Stream” means perennial and intermittent water sources identified through site inspection, and/or an approved city of Ames map, and/or United States Geological Survey (USGS) 7.5 minute series topographical map.

⁸ The City should of course specify the title of the designated individual to avoid confusion.

⁹ This §2.8, along with §4, are believed to be free of the infirmities recently detected by the Iowa Supreme Court in municipal ordinances dealing with park land and franchise fees. However, the very strict construction that the Court has utilized in recent challenges to municipal ordinances should be taken into account by cities giving consideration to using this model ordinance. The fees or other in-lieu-of requirements of these provisions should be carefully calibrated to manifest a reasonable cost-based relationship to the compliance a developer is seeking thereby to avoid.

“Stream Buffer” means a vegetated strip of land which lies adjacent to a stream and provides such functions as protecting water quality, providing wildlife habitat and storing flood waters and allowing access for repair or maintenance of streambanks and channel.

“Overbank Flood Protection” means providing on-site stormwater detention to limit runoff peak flow rates from the 20% annual recurrence (previously expressed as 5-year recurrence interval) storm event to prevent downstream surcharge of conveyance systems and reduce overbank flooding. At the site development level, this can be accomplished by providing detention practices with multi-stage outlets that control the outflow from these events to pre-settlement conditions (meadow in good condition).

“Predevelopment Condition” based on the pre-settlement condition for the site areas, typically tall-grass native prairie vegetation. Runoff rates and volumes for this condition can be modeled by the using times of concentration and curve numbers based on meadow in good condition for the soils and surface topography at a given site.

“Stormwater Management” means the use of BMPs that are designed in accordance with City stormwater requirements to reduce stormwater runoff pollutant loads, discharge volumes, peak flow discharge rates and detrimental changes in stream temperature that affect water quality and habitat.

“Stormwater Pollution Prevention Plan” (SWPPP) means a plan that is designed to minimize the accelerated erosion and sediment runoff at a site during construction activities and include provisions for additional pollution prevention.

“Water Quality Volume” means the runoff resulting from a rainfall depth of 1.25”, 90% of the rainfall events in Iowa are of this depth or less. By managing these storms the vast majority of water volume will be treated and many of the “first flush” pollutants of concern will be effectively managed on-site.

Section 3. Permit Procedures and Requirements¹⁰

3.1. Permit Required. No land owner or developer shall receive any of the building, grading or other land development permits required for land disturbance activities without first meeting the requirements of this ordinance as well as any national, state and other local permits prior to commencing the proposed activity.

3.2. Application Requirements

- 3.2.1 Unless specifically exempted by this ordinance, any land owner or developer desiring a permit for a land disturbance activity shall submit to City a permit application on a form provided for that purpose.
- 3.2.2 Unless otherwise exempted by this ordinance, a permit application must be accompanied by the following in order that the permit application be considered:
 - 3.2.2.1 a stormwater management concept plan;
 - 3.2.2.2 a maintenance agreement; and
 - 3.2.2.3 a non-refundable permit review fee.
- 3.2.3 The stormwater management concept plan and maintenance agreement shall be prepared to meet the requirements of Section 6 of this ordinance, and fees shall be those established by the City annually or more often by separate ordinance or resolution.¹¹

¹⁰ It is not the intention of this model ordinance to suggest that a new, separate permit process is contemplated independent of the COSESCO permit process (or its equivalent). Rather, the committee recommends that the requirements of this POST-CON ordinance and the requirements of the COSESCO ordinance (or its equivalent) be components of a single permitting process.

3.3. Application Review Fees

3.3.1 The fee for review of any land development application shall be based on the amount of land to be disturbed at the site,¹² and the fee structure shall be established by City, and shall be paid prior to the issuance of any applicable City permits.

3.3.2 All such revenue shall be credited to a City budgetary category to support the administration of this ordinance.

3.4. Application Procedure

3.4.1 Applications for land disturbance activity permits must be filed for review with City's Office of _____¹³ on any regular business day.

3.4.2 Permit applications shall include the following:

3.4.2.1 two copies of the stormwater management concept plan,

3.4.2.2 two copies of the maintenance agreement, and

3.4.2.3 any required review fees.

3.4.3 Within _____ business days of the receipt of a complete permit application, including all documents as required by this ordinance, City shall inform the applicant whether the application, plan and maintenance agreement are approved or disapproved.

3.4.4. If the permit application, stormwater management concept plan or maintenance agreement are disapproved, the applicant may revise the stormwater management concept plan or agreement. If additional information is submitted, City shall have _____ business days from the date the additional information is received to inform the applicant that the stormwater management concept plan and maintenance agreement are either approved or disapproved.

3.4.5 If the permit application, stormwater management final plan and maintenance agreement are approved by City, all appropriate land disturbance activity permits shall be issued.

3.5. Permit Duration. Permits issued under this section shall be valid from the date of issuance through the date City notifies the permit holder that all stormwater BMPs have passed the final inspection required under permit conditions. [INSERT time limit if needed and in certain cases renewal may be needed after a time limit is exceeded.]

Section 4. Waivers¹⁴

4.1. Every applicant shall provide for stormwater management as required by this ordinance, unless a written request to the City for a partial waiver of BMPs is granted pursuant to paragraph 4.2 hereof, or unless a written request to the City for a general waiver of BMPs is granted pursuant to paragraph 4.3 hereof.

4.2 Partial Waivers:

¹¹ Cities adopt myriad fees to cover the costs of operations for special activities that benefit specific groups which it would be inappropriate to spread across all taxpayers through property taxes. It is recommended that as part of the normal budget preparation process, cities annually adopt a single ordinance or resolution adjusting all city fees at the same time.

¹² In order for the administration and enforcement of this ordinance to be self-funded, the fees ultimately established should be supported by careful and comprehensive cost accounting studies that take into effect all of the direct and indirect costs to the City, including site inspection costs, for all activities required of the City by the ordinance.

¹³ This title should be adjusted to reflect the actual name of the city department charged with the duty to administer this ordinance; for purposes of consistency, however, this title shall be used throughout this model ordinance. Some cities may choose to contract with a third party engineer to conduct this review.

¹⁴ "Waivers" of ordinance requirements are inevitably fraught with risks of violation of state and federal "due process" and "equal protection" constitutional provisions. Consistency from case to case supported by very careful and comprehensive administrative guidelines and record making and keeping protocols will make it easier for a city to defend against claims that it has gone easier on one developer than another, but nothing can prevent such claims.

- 4.2.1 A partial waiver of BMPs required by this ordinance may be granted provided that at least one of the following threshold conditions is established by applicant based on authoritative written evidence satisfactory to City; if none of the following threshold conditions can be established, the application must be denied:
 - 4.2.1.1 The proposed development is not likely to impair attainment of the objectives of this ordinance.
 - 4.2.1.2 Alternative minimum requirements for on-site management of stormwater have been established in a stormwater management final plan that has been approved by City and fully implemented.
 - 4.2.1.3 Provisions are made to manage stormwater by an off-site facility. The off-site facility is required to be in place, to be designed and adequately sized to provide a level of stormwater control that is equal to or greater than that which would be afforded by on-site practices and there is, in City's sole judgment, a responsible entity legally obligated to monitor the performance of and maintain the efficiency of stormwater BMPs in accordance with a written and recorded maintenance agreement.
- 4.2.2 If the applicant fails to establish at least one of the threshold conditions for granting a partial waiver specified in paragraph 4.2.1 hereof, the application must be denied. However, if the applicant successfully establishes at least one of the threshold conditions for granting a partial waiver specified in paragraph 4.2.1 hereof, the applicant must further establish by authoritative written evidence satisfactory to City that the partial waiver will not result in any one or more of the following impacts to downstream waterways; if a partial waiver would result in any one or more of the following impacts to downstream waterways, the application must be denied:
 - 4.2.2.1 additional deterioration of existing culverts, bridges, dams, other structures; or
 - 4.2.2.2 degradation of biological functions or habitat; or
 - 4.2.2.3 accelerated streambank or streambed erosion or siltation; or
 - 4.2.2.4 increased threat of flood damage to public health, life, property.

4.3 GENERAL WAIVERS:

- 4.3.1 If City finds that a general waiver is appropriate because implementation of no on-site stormwater BMPs is feasible due to the natural or existing physical characteristics of a site such as shallow bedrock, high groundwater, hotspots or contaminated soil or excessive cost, or that none of the conditions specified in 4.2.1 above can be established to a certainty, or that any one or more of the impacts to downstream waterways specified in 4.2.2 above cannot be entirely averted, the applicant shall execute a binding written agreement to accomplish one or more of the following mitigation measures selected by City:
 - 4.3.1.1 The purchase and donation of privately owned lands, or the grant of an easement to be dedicated for preservation and/or reconstruction of native ecosystems of lands strategically located in the watershed consistent the purposes of this ordinance, of a sufficient quantity to enable City or others to achieve City stormwater requirements with respect to a number of cubic feet of annual stormwater equivalent to the estimated number of cubic feet of annual stormwater that will not achieve City stormwater requirements as a consequence of the waiver.

- 4.3.1.2 The creation of one or more stormwater BMPs on previously developed properties, public or private, that currently lack stormwater BMPs, having a capacity to achieve City stormwater requirements with respect to a number of cubic feet of annual stormwater equivalent to the estimated number of cubic feet of annual stormwater that will not achieve City stormwater requirements as a consequence of the waiver.
- 4.3.1.3 Monetary contributions (Fee-in-Lieu) to fund stormwater management activities such as research and studies (e.g., regional wetland delineation studies, stream monitoring studies for water quality and macroinvertebrates, stream flow monitoring, threatened and endangered species studies, hydrologic studies, monitoring of stormwater BMPs, and stream corridor stabilization practices). The monetary contribution required shall be in accordance with a fee schedule (unless the developer and the stormwater authority agree on a greater alternate contribution) established by City based on the estimated cost savings to the developer resulting from the waiver and the estimated future costs to City to achieve City stormwater requirements with respect to a number of cubic feet of annual stormwater equivalent to the estimated number of cubic feet of annual stormwater that will not achieve City stormwater requirements as a consequence of the waiver. All of the monetary contributions shall be credited to an appropriate capital improvements program project, and shall be made by the developer prior to the issuance of any building permit for the development.
- 4.3.1.4 Dedication of land or granting of an easement by the applicant of a value equivalent to the cost to City of the construction of an off-site stormwater management facility sufficient to achieve City stormwater requirements with respect to a number of cubic feet of annual stormwater equivalent to the estimated number of cubic feet of annual stormwater that will not achieve City stormwater requirements as a consequence of the waiver. The agreement shall be entered into by the applicant and City prior to the recording of plats or, if no record plat is required, prior to the issuance of the building permit.

Section 5. Stormwater Standards. Unless granted a waiver by City, applicants shall meet the stormwater management standards established in this ordinance

- 5.1 The following criteria shall be addressed in site design for stormwater runoff to protect surface and groundwater and other natural resources:
 - 5.1.1 Reduce impacts on waterbodies, preserve and replace existing topsoil in an uncompacted manner, preserve vegetation, decrease runoff volume, decrease erosion and sedimentation, decrease flow frequency, duration, and peak runoff rates, increase infiltration, maintain existing flow patterns, store stormwater runoff on-site, and avoid natural channel and steep slope erosion as well as protect in-stream habitat.
- 5.2 **Soil Quality Management and Restoration Methods** in the Iowa Stormwater Management Manual shall be used on all green spaces that will contain turf and other landscaping. Existing topsoil shall be respreads on-site in an uncompacted manner uniformly across the site.
- 5.3 **Volume credit** will be given for groundwater recharge as defined in the Iowa Stormwater Management Manual.
- 5.4 The site shall be designed to **manage the water quality volume of 1.25 inches** by infiltration practices listed in the Iowa Stormwater Management Manual.

- 5.5** To **protect stream channels**, the site shall be designed to infiltrate or provide 24 hour extended detention of the channel protection volume defined as the 1 year, 24 hour storm using rainfall depth per NOAA Atlas 14.
- 5.6** Stormwater management shall be provided to limit the post development rate of runoff from the site area during the 5 year (20% AR) through the 100 year (1% AR), 24 hour storm events to the lesser of the following values: (1) runoff rates equivalent to those from a storm event of the same intensity and duration based on predevelopment conditions (pre-settlement surfaces considered when assuming curve numbers and calculating times of concentration, based on a cover type of meadow in good condition and surface soil types as identified from County Soil Maps) or (2) runoff rates equivalent to those from the 5 year (20% AR) storm event based on conditions which exist as of the date of the proposed improvement plans (based on row crop agriculture cover, contoured in good condition and surface soil types as identified from County Soil Maps; unless otherwise approved by the jurisdiction). For design calculations, use NOAA Atlas 14 to determine rainfall depths based on the site location.
- 5.7** Provisions shall be made for stream corridor protection through the use of **stream buffers** on both sides of the stream. There is not a one-size-fits-all riparian buffer width; local conditions such stream size, geomorphology, local land use, native riparian plants and animals, and landowners' expectations must be taken into consideration. Streams over decades will erode their banks until a stable meander pattern is formed. Narrow buffers lead to future residential and public infrastructure damage. In Iowa, the model riparian buffer is wide enough to accommodate the stream's projected future meander belt width with a minimum of 50 additional feet on each side of the meander belt width to provide buffering of the outsides of meander bends at the edges of the projected belt width. Stream width and stream type are key criteria for predicting a stream's eventual belt width. A typical minimum recommendation for incompatible development setbacks would be 4 times the stream's bankfull channel width at its narrowest spots. Compatible (non-vertical) infrastructure, such as underground utility lines, trails, and mowed access lanes may be included within the buffer but generally should be located at the outside edges of the projected meander belt width. Drainage ways shall provide adequate space to convey 100 year storm flows [INSERT 500 year storm flows if needed] in a non-erosive manner and in a way that does not cause damage to adjacent structures. Refer to Practice Guide 3, Riparian Buffering, in Iowa's River Restoration Toolbox on the Iowa DNR website for analysis steps and current guidelines.

Section 6. Requirements for Approval of Stormwater Management Concept Plan and Stormwater Management Final Plan.¹⁵

- 6.1 Stormwater Management Concept Plan:** No application for development will be accepted unless it includes a stormwater management concept plan detailing in concept how runoff and associated water quality impacts resulting from the development will be controlled or managed.

¹⁵ It is the intention of this model ordinance that the SWPPP, stormwater management concept plan and stormwater management final plan be consistent and perhaps even evolutionary states of a single overall plan to control stormwater pollution and run-off from groundbreaking through the intended life of the BMPs utilized on any site subject to this ordinance. Accordingly, it does not seem prudent to allow differing levels of expertise on the part of those who prepare a SWPPP as opposed to those who prepare a concept plan as opposed to those who prepare a final plan. By requiring that only licensed professional engineers or landscape architects may prepare and certify SWPPPs and concept plans and final plans, it is the hope of the committee that developer costs will thereby be reduced rather than increased because a single professional can (should) be in charge of drafting such plans from beginning to end. However, if a city decides that such consistency is unnecessary, it could require that any one or more of the various documents required by this ordinance be prepared by anyone "credentialed in a manner satisfactory to City."

- 6.1.1 The stormwater management concept plan shall:
 - 6.1.1.1 be prepared and certified by a licensed professional engineer (PE) or landscape architect; and
 - 6.1.1.2 indicate whether stormwater will be managed on-site or off-site and, if on-site, the general location and type of BMPs, with clear citations to the Iowa Stormwater Management Manual; and
 - 6.1.1.3 include a signed and dated certification under penalty of perjury by the preparer of the stormwater management concept plan that it complies with all requirements of this ordinance and the Iowa Stormwater Management Manual, meets the submittal requirements outlined in the Iowa Stormwater Management Manual, is designed to achieve City stormwater requirements, and that City is entitled to rely upon the certification as due diligence on the part of City.
- 6.1.2 The stormwater management concept plan shall include sufficient information (e.g., maps, hydrologic calculations, etc) to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the stormwater BMPs proposed for managing stormwater generated at the project site. The intent of this conceptual planning process is to determine the type of stormwater BMPs necessary for the proposed project, and ensure adequate planning for management of stormwater runoff from future development. To accomplish this goal the following information shall also be included in the stormwater management concept plan:
 - 6.1.2.1 A soil management plan as defined by the Iowa Stormwater Management Manual shall be provided and include a technical assessment of soils that identifies the soil series and the site limitations based on soils data provided in the Web County Soil Survey hosted by Natural Resources Conservation Service (NRCS). It may only be used if soils have not been highly disturbed. Soil borings shall be included when necessary to confirm suitable site conditions for placement of buildings with basements and related structures, especially in areas with hydric soils and shallow depth to groundwater. If a stormwater BMP depends on the hydraulic properties of soils, then the assessment shall include soil borings and measurements of percolation/infiltration rates. The number and location of required soil borings and/or soil test sites shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the BMP. Borings may range from a minimum of 5' to 20' below subgrade depending on the size of the BMP. This information shall be used to provide a summary of the associated risks and potential for adequate drainage related to infiltration practices, groundwater mounding and basement flooding. Consultation with a Certified Professional Soil Scientist, Soil Classifier, or Geotechnical Engineer may be necessary or required.
 - 6.1.2.2 A map (or maps) indicating the location of existing and proposed buildings, roads, parking areas, utilities, structural stormwater management and sediment and erosion BMPs. The map(s) will also clearly show proposed land use with tabulation of the percentage of surface area to be adapted to various uses; off-site and on-site drainage patterns and watershed delineation; the limits of clearing and grading. A written description of the site plan and justification of proposed changes in natural conditions may also be required.

- 6.1.2.3 Sufficient engineering analysis to show that the proposed BMPs are capable of achieving City stormwater requirements for the site in compliance with this ordinance.
- 6.1.2.4 A written or graphic inventory of the natural resources at the site and surrounding area as it exists prior to the commencement of the project and a description of the watershed and its relation to the project site. This description should include a discussion of soil conditions, forest cover, topography, wetlands, and other native vegetative areas on the site. Particular attention should be paid to environmentally sensitive BMPs that provide particular opportunities or constraints for development.
- 6.1.2.5 Landscaping and stabilization shall be accomplished to prevent stormwater violations or impairment of BMPs. In addition, a landscaping plan must be submitted with the final as-built drawings describing the vegetation stabilization and management techniques to be used at the site after construction is completed. This plan will include the entity responsible for vegetation at the site and practices that will be used to ensure adequate vegetative cover.
- 6.1.2.6 A written description of the required maintenance burden for any proposed BMPs.
- 6.1.2.7 City may also require a concept plan to consider the maximum development potential of a site under existing zoning, regardless of whether the applicant presently intends to develop the site to its maximum potential.
- 6.1.2.8 For development occurring on a previously developed site, an applicant shall be required to include within the stormwater management concept plan BMPs for controlling existing stormwater runoff discharges from the site in accordance with this Ordinance to the maximum extent practicable.
- 6.1.3 The stormwater management concept plan shall be referred for comment to all other interested agencies, and any comments must be addressed in a stormwater management final plan.
- 6.1.4 No building, grading, or sediment control permit shall be issued until a satisfactory stormwater management final plan, or a waiver thereof, shall have undergone a review and been approved by City after determining that the plan or waiver is consistent with the requirements of this ordinance.

6.2 Stormwater Management Final Plan Requirements: After review of the stormwater management concept plan, and modifications to that plan as deemed necessary by City, a stormwater management final plan must be submitted to the City for approval.

- 6.2.1 The stormwater management final plan, in addition to the information included in the stormwater management concept plan, shall:
 - 6.2.1.1 be prepared and certified by a licensed professional engineer (PE) or landscape architect; and
 - 6.2.1.2 indicate whether stormwater will be managed on-site or off-site and, if on-site, the general location and type of practices, with clear citations to the Iowa Stormwater Management Manual; and
 - 6.2.1.3 include a signed and dated certification under penalty of perjury by the preparer of the stormwater management concept plan that it complies with all requirements of this ordinance and the Iowa Stormwater Management Manual, meets the submittal requirements outlined in the Iowa Stormwater Management

Manual, is designed to achieve City stormwater requirements, and that City is entitled to rely upon the certification as due diligence on the part of City.

6.2.2 The stormwater management final plan shall also include:

- 6.2.2.1 A detailed summary of how and why the stormwater management final plan differs, if at all, from the stormwater management concept plan previously submitted.
- 6.2.2.2 Contact information, including but not limited to the name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected.
- 6.2.2.3 Topographic Base Map, consisting [INSERT value, may want to consider a minimum of a 1" = 200' topographic base map] of the site which extends a minimum of _____feet beyond the limits of the proposed development and indicates existing surface water drainage including streams, ponds, culverts, ditches, and wetlands; current land use including all existing structures; locations of utilities, roads, and easements; and significant natural and manmade features not otherwise shown.
- 6.2.2.4 Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the Iowa Stormwater Management Manual. Such calculations shall include [MAY WANT TO JUST REFERENCE THE CHECKLIST THAT ACCOMPANIES THIS ORDINANCE] (i) description of the design storm frequency, intensity and duration, (ii) time of concentration, (iii) Soil Curve Numbers or runoff coefficients, (iv) peak runoff rates and total runoff volumes for each watershed area, (v) infiltration rates, where applicable, (vi) culvert capacities, (vii) flow velocities, (viii) data on the increase in rate and volume of runoff for the design storms referenced in the Iowa Stormwater Management Manual, and (ix) documentation of sources for all computation methods and field test results.
- 6.2.2.5 Along with the soil management plan, include the technical assessment of soils required in the concept plan.
- 6.2.2.6 A Maintenance and Repair Plan for all stormwater BMPs including detailed maintenance and repair procedures to ensure their continued efficient function. These plans will identify the parts or components of a stormwater BMP that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.
- 6.2.2.7 A detailed landscaping plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. This plan must be prepared by a licensed landscape architect, landscape designer, or by the soil water conservation district.
- 6.2.2.8 Proof of permanent recorded Maintenance Easements that will ensure access to all stormwater BMPs at the site for the purpose of inspection and repair. These easements will be recorded with the stormwater management final plan and will remain in effect even with transfer of title to the property.

- 6.2.2.9 Proof of a recorded Maintenance Agreement binding on all subsequent owners of land served by stormwater BMPs to ensure maintenance and repair in accordance with the specifications of this ordinance.
- 6.2.2.10 Copies of all existing SWPPPs (as required by the City's COSESCO ordinance) current as of the date of submission of the stormwater management final plan for all construction activities related to implementing any on-site stormwater BMPs.
- 6.2.2.11 Proof that the applicant has acquired all other applicable environmental permits for the site, or that no other such permits are required, prior to submission of the stormwater management final plan to the City.

6.3 Performance Bond/Security¹⁶

- 6.3.1 City shall require the submittal of an installation performance security or bond prior to issuance of a permit in order to insure that the stormwater BMPs are installed by the permit holder as required by the approved stormwater management final plan.
- 6.3.2 The amount of the installation performance security or bond shall be the total estimated construction cost of the stormwater BMPs approved under the permit, plus 25%. The installation performance security or bond shall contain forfeiture provisions for failure to complete work specified in the stormwater management final plan.
- 6.3.3 The installation performance security or bond shall be released in full only upon submission of "as built plans" of all stormwater BMPs specified in the stormwater management final plan and written certification by a professional engineer that the stormwater BMPs have been installed in accordance with the approved stormwater management final plan and other applicable provisions of this ordinance. City will make a final inspection of stormwater BMPs to ensure compliance with the approved stormwater management final plan and the provisions of this ordinance. Provisions for a partial pro-rata release of the installation performance security or bond based on the completion of various development stages can be made at the discretion of City.

6.4 Maintenance Performance Security or Bond

- 6.4.1 City shall also require the submittal of a maintenance performance security or bond prior to issuance of a permit in order to insure that the stormwater BMPs are maintained in an effective state for a minimum of _____ years.
- 6.4.2 This maintenance performance security or bond may be released by the City upon a showing satisfactory to the City that:
 - 6.4.2.1 the permit holder has assigned to another boni-fide financially responsible legal entity, such as a home-owners' or similar organization organized under Iowa law, responsibility for maintenance of the stormwater BMPs in an effective state for the balance of the _____ year period after assignment; and
 - 6.4.2.2 said assignee-legal-entity has fully accepted such responsibility in a written document that qualifies for recording and has been recorded in the county recorder's office under Iowa law; and

¹⁶ This section and section 6.4 have been the source of much discussion and some disagreement among committee members, and thus are offered with a caveat. Some on the committee thought the provisions onerous or unnecessary. Others on the committee suggested that such bonding/security provisions are common for street, curb and gutter installations, and sometimes other kinds of infrastructure in developments, and that there is no reason to exempt stormwater management BMP installations. It will be up to each city to determine the advisability of deleting these provisions.

- 6.4.2.3 said assignee-legal-entity posts a substitute maintenance performance security or bond subject to release at the end of the initial _____ year period upon a further showing by the assignee-legal-entity that the stormwater BMPs are, in City’s sole judgment, still reasonably effective.

Section 7. Construction Inspection

7.1 Notice of Construction Commencement: The applicant must notify City in advance before the commencement of construction. Regular inspections of construction of the stormwater BMPs shall be conducted by City or City’s designated representative. All inspections shall be documented and written reports prepared that contain the following information:

- 7.1.1 the date and location of the inspection; and
- 7.1.2 whether construction is in compliance with the approved stormwater management concept plan; and
- 7.1.3 variations, if any, from the approved stormwater management concept plan.

7.2 If any **violations are found**, the applicant shall be notified in writing of the nature of the violation and the required corrective actions. No added work shall proceed until any violations are corrected and all work previously completed has received approval by City.

7.3 After construction is completed, applicants are required to submit actual **“as built” drawings** satisfactory to City for any stormwater BMPs located on-site. The drawings must show the final design specifications for all stormwater BMPs and must be certified by a professional engineer. A final inspection by City is required before the release of any performance securities can occur.

7.4 Landscaping and Stabilization Requirements

- 7.4.1 Landscaping and stabilization shall be accomplished to prevent violation of City stormwater requirements or impairment of BMPs.
- 7.4.2 In addition to the above requirements, a landscaping plan must be submitted with the final as-built drawings describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. This plan must be prepared by a registered landscape architect, landscape designer, by the local soil water conservation district, or credentialed in a manner acceptable to the city and must be approved prior to receiving a permit.

Section 8. Maintenance and Repair of Stormwater BMPs¹⁷

¹⁷ The provisions of this Section §8 contemplate private landowner responsibility for maintenance and repair of stormwater Controls in perpetuity. However, at least two other mechanisms might be considered by cities.

First, the installation, maintenance and repair of stormwater controls could be deemed analogous to however a city currently addresses the installation, maintenance and repair of other municipal infrastructure such as streets, curbs and gutters. Typically, developers are required to install public streets to city specifications and dedicate them to public use under such conditions as a city may require. If a developer chooses to install private streets intended for the private use of landowners served by the private streets which are not be dedicated to the public, then the landowners’ collective responsibility for installation, maintenance and repair costs falls to the landowners’ association or is guaranteed in some other manner specified by the city to prevent the use of public funds to maintain or repair private infrastructure. However, to the extent that non-maintenance or non-repair of a stormwater control can negatively impact the surrounding environment while non-maintenance or non-repair of a private street detrimentally affects only the landowners served thereby, the city should provide consequences for the failure of maintenance or repair of stormwater controls that would be unnecessary for the failure of maintenance or repair of a private street.

- 8.1** The applicant or owner of every site, or an assignee qualified pursuant to Section 7, shall be responsible for **maintaining as-built stormwater BMPs** in an effective state as determined in the sole judgment of City for _____ years¹⁸ from and after completion of construction.
- 8.2** **Maintenance and Repair Easement:** Prior to the issuance of any permit for development involving any stormwater BMP, the applicant or owner of the site must execute a maintenance and repair easement agreement that shall be binding on all subsequent owners of land served by the stormwater BMP. The agreement shall provide for access to the BMP and the land it serves at reasonable times for periodic inspection by City or City's designee and for regular or special assessments of property owners to ensure that the BMP is maintained in proper working condition to meet City stormwater requirements. The easement agreement shall be recorded by City at the expense of the permit holder or property owners.
- 8.3** **Maintenance Covenants:**
- 8.3.1 Maintenance of all stormwater BMPs shall be ensured through the creation of a formal maintenance covenant that must be approved by City and recorded prior to the stormwater management final plan approval. As part of the covenant, a schedule shall be developed for when and how often maintenance will occur to ensure proper function of the stormwater BMPs. The covenant shall also include plans for periodic inspections to ensure proper performance of the BMPs between scheduled cleanouts.
- 8.3.2 City, in lieu of a maintenance covenant, may but is not required to accept dedication of any existing or future stormwater BMP to include City responsibility for maintenance and repair, provided that the maintenance and repair of such element will not impose an undue burden on other City taxpayers who enjoy little if any benefit from the BMP, the BMP meets all the requirements of this chapter, and the dedication includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.
- 8.4** **Requirements for Maintenance Covenants:** All stormwater BMPs must undergo, at the minimum, an annual inspection to document maintenance and repair needs and ensure compliance with the requirements of this ordinance and accomplishment of its purposes. These needs may include but are not limited to removal of silt, litter and other debris from all catch basins, inlets and drainage pipes, grass cutting and vegetation removal, and necessary replacement of landscape vegetation. Any maintenance or repair needs detected must be corrected by the developer or entity responsible under a written maintenance agreement under Section 6 in a timely manner, as determined by City, and the inspection and maintenance requirement may be increased as deemed necessary to ensure proper functioning of the stormwater BMPs.
- 8.5** **Inspection of Stormwater BMPs:** Inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of

Second, responsibility the installation, maintenance and repair of stormwater controls might be vested in a stormwater utility that would function much like a municipal water, gas or electricity utility. The creation of such a utility is beyond the intended scope of this model ordinance.

¹⁸ The duration of maintenance and repair obligations should be determined by a city to parallel any such requirements for street, gutter or sewer infrastructure; a duration of twenty-five (25) years is not uncommon.

contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in stormwater BMPs, and evaluating the condition of stormwater BMPs.

- 8.6 Right-of-Entry for Inspection:** When any new stormwater BMP is installed on private property, or when any new connection is made between private property and a public stormwater management facility, sanitary sewer or combined sewer, the property owner shall grant to City the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when City has a reasonable basis to believe that a violation of this ordinance is occurring or has occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this ordinance.
- 8.7 Records of Installation and Maintenance and Repair Activities:** Parties responsible for the operation and maintenance of stormwater BMPs shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least years.¹⁹ These records shall be made available to City during inspection of the facility and at other reasonable times upon request.
- 8.8 Failure to Maintain Stormwater BMPs:** If a responsible party fails or refuses to meet the requirements of the maintenance covenant or any provision of this ordinance, City, after reasonable notice, may correct a violation by performing all necessary work to place the BMP in proper working condition. In the event that the stormwater BMP becomes a danger to public safety or public health, City shall notify the party responsible for maintenance of the stormwater BMP in writing. Upon receipt of that notice, the responsible person shall have thirty (30) days to effect maintenance and repair of the stormwater BMP in an approved manner. After proper notice, City may assess, jointly and severally, the owner(s) of the stormwater BMP or the property owners or the parties responsible for maintenance under any applicable written agreement for the cost of repair work and any penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes.

Section 9. Enforcement and Penalties.

- 9.1 Violation of any provision of this ordinance** may be enforced by civil action including an action for injunctive relief. In any civil enforcement action, administrative or judicial, the City shall be entitled to recover its attorneys' fees and costs from a person who is determined by a court of competent jurisdiction to have violated this ordinance.
- 9.2** Violation of any provision of this ordinance may also be enforced as a **municipal infraction** within the meaning of §364.22, pursuant to the City's municipal infraction ordinance.²⁰
- 9.3 Enforcement pursuant** to this section shall be undertaken by City upon the advice and consent of the City Attorney or other counsel employed by City.
- 9.4 Restoration of lands:** Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time after notice, City may

¹⁹ The duration of any records retention requirement should be determined by a city to parallel any such requirements for street, gutter or sewer infrastructure; a duration of twenty-five (25) years is not uncommon

²⁰ A city may consider various enforcement mechanisms. However, the Iowa Code furnishes cities with a very useful tool called "municipal infractions." If a city adopting this ordinance does not already have a municipal infraction ordinance, one should be seriously considered for reasons which are beyond the scope of this model ordinance.

take necessary corrective action, the cost of which shall become a lien upon the property until paid.

9.5 Holds on Occupation Permits: Occupancy permits shall not be granted until all stormwater BMPs have been inspected and approved by City.

Section 10. Appeal

10.1 Administrative decisions by city staff and enforcement actions may be appealed by the developer or property owner to the city council pursuant to the following rules:²¹

10.1.1 The appeal must be filed in writing with the city clerk within five (5) business days of the decision or enforcement action.

10.1.2 The written appeal shall specify in detail the action appealed from, the errors allegedly made by the enforcement officer giving rise to the appeal, a written summary of all oral and written testimony the applicant intends to introduce at the hearing, including the names and addresses of all witnesses the applicant intends to call, copies of all documents the applicant intends to introduce at the hearing, and the relief requested.

10.1.3 The enforcement officer shall specify in writing the reasons for the enforcement action, a written summary of all oral and written testimony the enforcement officer intends to introduce at the hearing, including the names and addresses of all witnesses the enforcement officer intends to call, and copies of all documents the enforcement officer intends to introduce at the hearing.

10.1.4 The city clerk shall notify the applicant and the enforcement officer by ordinary mail, and shall give public notice in accordance with Chapter 21, Iowa Code, of the date, time and place for the regular or special meeting of the city council at which the hearing on the appeal shall occur. The hearing shall be scheduled for a date not less than four (4) nor more than twenty (20) days after the filing of the appeal. The rules of evidence and procedure, and the standard of proof to be applied, shall be the same as provided by Chapter 17A, Code of Iowa. The applicant may be represented by counsel at the applicant's expense. The enforcement officer may be represented by the city attorney or by an attorney designated by the city council at City expense.

10.2 The decision of the city council shall be rendered in writing and may be appealed to the Iowa District Court.

²¹ If the city already has rules applicable to the appeal of enforcement actions, the existing process may be incorporated by reference in lieu of the indicated language. The specificity of this provision in terms of time-lines, hearings and decisions are necessary in order to satisfy constitutional principles of due process and equal protection.