

## Chapter 12A - LAND PRESERVATION

### ARTICLE I. - IN GENERAL

#### Sec. 12A-1. - Title.

This chapter shall be known as the "Land Preservation Act of the City of Columbia, Missouri."

(Ord. No. 13019, § 1, 7-1-91)

#### Sec. 12A-2. - Purpose.

The purpose of this chapter is to:

- (1) Protect the health, safety and property of the people of Columbia by regulating the disturbance of land surface areas by preserving trees, preventing erosion on disturbed areas, and controlling storm water drainage.
- (2) Assure that consideration is given to the preservation and restoration of natural features in the grading or development of public and private land.
- (3) Assure that proper provisions are made regarding control of sediments resulting from rainfall on graded areas, and that adequate facilities are constructed for the management of storm water.
- (4) Assure the movement of emergency vehicles during storm periods.
- (5) Protect the public from rapidly flowing water and flash floods.
- (6) Minimize storm and flood losses resulting from uncontrolled runoff.
- (7) Establish requirements for construction of storm water management facilities in newly developed areas.
- (8) Establish reasonable stormwater utility charges to enable the stormwater utility to develop and maintain a stormwater management system.

(Ord. No. 13019, § 1, 7-1-91; Ord. No. 13590 § 1, 2-15-93)

#### Sec. 12A-3. - Limitation on liability related to storm water management facilities.

Floods from storm water runoff may occur which exceed the capacity of storm drainage facilities constructed and maintained as a result of this chapter. This chapter does not guarantee that properties will always be free from storm water flooding or flood damage. This chapter shall not create liability on the part of, or a cause of action against, the city or any city officer or employee for any flood damage. Neither does this chapter purport to reduce the need or the necessity for obtaining flood insurance.

(Ord. No. 13019, § 1, 7-1-91)

#### Sec. 12A-4. - Conflicts.

Where any provision of this chapter imposes restrictions different from those imposed by any other law or regulation, whether state, federal or local, whichever is more restrictive or imposes a higher standard shall control.

(Ord. No. 13019, § 1, 7-1-91)

#### Sec. 12A-5. - Definitions.

For the purposes of this chapter, the following words and phrases shall have the meaning given herein.

*Agricultural activity.* Normal farming operations including improvements conducted under the auspices of the Natural Resource Conservation Service.

*Best management practices (BMP).* Activities, practices and procedures which control soil loss and reduce or prevent water quality degradation caused by nutrients, animal wastes, toxins, organics and sediment in the runoff. BMPs may either be structural (grass swales, terraces, retention and detention ponds, and others); or nonstructural (disconnection of impervious surfaces, directing downspouts onto grass surfaces and educational activities).

*Central business district.* The area bounded by College Avenue on the east, Elm Street and Elm Street extended on the south, Garth Avenue on the west, and Park Avenue and Park Avenue extended on the north.

*City utility service customer.* A purchaser of city water, electric, sewage or refuse collection utility service.

*Clean fill.* Uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinder-blocks, brick, minimal amounts of wood and metal, and inert solids which are approved by rule or policy of the State Department of Natural Resources for fill, reclamation or other beneficial use.

*Clear cutting.* The practice of removing over half of the standing climax forest area on a site.

*Climax forest.* Any woodland community of over twenty thousand (20,000) square feet which is dominated by climax species such as oak, hickory, sugar maple or bottomland hardwoods such as river birch, basswood, sycamore and hornbeam and which includes an area of five thousand (5,000) square feet with a maximum aspect ratio of 4:1.

*Critical downstream location.* A location within the drainage reach downstream of the subject site, consisting of a channel section, drainage swale, bridge, box culvert, storm sewer, or other conveyance facility or structure having a conveyance capacity which would be exceeded by storm water runoff from a 10-year frequency, 24-hour duration storm under existing land use conditions; or an existing structure or building located downstream of the subject site which has its lowest floor elevation less than one (1) foot above the maximum elevation in an adjacent channel attained by the 100-year frequency, 24-hour duration storm, assuming existing land use conditions with the proposed ultimate development of the subject site in place. The conveyance capacity of a structure operating under inlet control conditions shall be determined with a maximum headwater to diameter ration (HW/D) of 1.25 or with a headwater elevation equal to the top of curb, whichever is less.

*dbh (diameter breast height).* Trunk diameter at 4.5 feet about ground.

*Design year storm.* The selected or established frequency or return period of rainfall time-duration for which drainage facilities are to be designed.

*Developed land.* Real estate altered by the addition of impervious surface which changes the hydrology of the property from its natural state.

*Developer.* A person whose intent or function is to bring about any change of land use or improvement on any parcel of land.

*Development.* 1) The improvement of property for any purpose involving construction; 2) the preparation of land for construction; or, 3) land disturbance that requires the issuance of a land disturbance permit.

*Director.* The director of public works or the director's designee.

*Drainage basin (or watershed).* The catchment area from which storm water is carried off by a watercourse or storm drainage system. The area served by a drainage system receiving storm and other surface-borne water. Drainage basin boundaries are a product of natural topography and drainage system configuration.

*Drainage facility.* A man-made structure or natural watercourse for the conveyance of storm runoff. Examples are channels, pipes, ditches, swales, catch basins, and street gutters.

*Dwelling unit.* A building or portion thereof, designed to house a family.

*Forest land.* Forested land area with the aerial canopy dominated by trees greater than four (4) inches in diameter, measured four and one-half (4½) feet above the ground.

*Forest parcel.* An envelope of trees delineated by the boundaries of grading limits or land disturbances.

*Impervious surface.* A surface on real property where infiltration of stormwater into the earth has been virtually eliminated by the works of man. Impervious surfaces shall include, but not be limited to: Roofs, paved driveways, patio areas, sidewalks, parking lots, storage areas, and other oil or macadam surfaced areas which prevent percolation of stormwaters into the earth's surface.

*Infiltration.* The process of percolating stormwater into the subsoil.

*Land disturbance.* Any activity, including mechanized clearing, which removes the vegetative ground cover.

*Land disturbance permit.* A permit issued by the City of Columbia that authorizes the commencement of land disturbance activities or logging.

*Logging.* The removal of more than three (3) existing trees for commercial purposes on any tract of land larger than one (1) acre.

*Main floor area.* The area within the perimeter of the exterior walls of a building excluding any attached garage. The main floor area does not include the area of decks, porches, patios or garages.

*Maximum aspect ratio of 4:1.* A means of defining the configuration of an area of trees such that the measurement of length of the area shall not be more than four (4) times as long as the measurement of width of the area.

*Mechanized clearing.* Clearing of land by tracked or wheeled vehicles which scrape, cultivate or scarify the surface of the ground exposing bare soil and uprooting vegetation.

*Multiple-family building.* A building with more than one dwelling unit.

*Non-point source pollution.* Pollution which is generated by various land use activities rather than from an identifiable or discrete source, and which is conveyed to waterways through natural processes, such as rainfall, stormwater runoff, or ground water seepage and infiltration rather than through direct discharge.

*Nonresidential use.* The use of developed land for any purpose other than for a single-family residence or a multiple-family building.

*Occupant.* The person in possession or lawfully entitled to possession of a parcel of land.

*Owner.* Any person having legal title to, or a proprietary interest in real property. Proprietary interest shall include, but not be limited to, estate administration, trusteeship, guardianship, and actions under a valid power of attorney.

*Peak runoff.* The maximum rate at which stormwater travels across the surface of the ground.

*Pollutant.* Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes, yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, which may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; including but not limited to sediments, slurries and concrete rinsate and noxious or offensive matter of any kind.

*Redevelopment.* Any reconstruction, rehabilitation, addition or other improvement of a property (exclusive of R-1 and R-2 zoned properties) the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the start of construction of the improvement.

*Site.* The total area of the parcel, tract, lot or ownership of land upon which development or land disturbance is proposed irrespective of the actual limits or size of the proposed development or land disturbance activity.

*Storm drain.* A closed conduit or open ditch, natural or specifically constructed, for conducting or conveying collected storm water. Conduits and paved open ditches are termed "improved"; unpaved ditches are termed "unimproved".

*Storm drainage design manual.* A City manual intended primarily for use by land developers in the design of minor storm drainage systems, such as a storm drains, relatively small culverts, associated streets and gutter flow hydraulics, natural drainage swales, storm inlets and detention facilities. The manual includes drainage policy to be followed, standard design methods, computation forms, and City standards.

*Storm drainage system.* All drainage facilities used for collecting and conducting storm water to, through and from drainage areas to the points of final outlet including, but not limited to, the following: Conduits and appurtenant features, canals, ditches, streams, gullies, flumes, culverts, streets, gutters, and pump stations.

*Stormwater.* Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation including snowmelt.

*Stormwater management facilities.* This term includes measures, primarily structural, which are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to stormwater runoff and subsequently into water bodies. These facilities are also used to control volume and peak rates of runoff from development and redevelopment sites.

*Stream channel.* A naturally or artificially created water course with definite bed and banks which conducts continuously or periodically flowing water.

*Swale.* A wide shallow ditch used to carry storm runoff.

*Total suspended solids.* Matter suspended in stormwater excluding litter, debris, and other gross solids exceeding one (1) millimeter in diameter.

*Tree.* Any self-supporting woody perennial plant, usually with one (1) main stem or trunk.

*Tree, existing.* A tree which meets or exceeds the following size standards: Deciduous shade trees shall have a four (4) inch diameter, measured four and one-half (4½) feet above the ground and ornamental and evergreen species shall be a minimum of six (6) feet in height.

*Unimproved land.* Land or property having little or no "impervious surface."

*Water quality volume.* The storage needed to capture and treat ninety (90) percent of an average annual stormwater runoff

volume. It is calculated by multiplying the water quality storm times the volumetric runoff coefficient and site area.

*Watercourse.* A stream, usually flowing in a particular direction (though it need not flow continuously in a definite channel), having a bed or banks and usually discharging into some other stream or body of water.

*Watershed.* All the land area which drains to a given body of water.

(Ord. No. 13019, § 1, 7-1-91; Ord. 13374, § 1, 7-20-92; Ord. No. 13590 § 1, 2-15-93; Ord. No. 14389 § 1, 3-6-95; Ord. No. 18164, § 1, 7-19-04; Ord. No. 19442, § 1, 3-5-07)

#### **Sec. 12A-6. - Administration and enforcement.**

The provisions of this chapter shall be administered and enforced by the director of public works.

(Ord. No. 13019, § 1, 7-1-91)

#### **Sec. 12A-7. - Revocation of permits.**

The director may revoke a land disturbance permit if the permit application or accompanying plan contains any false statement or misrepresentation of fact. The director may revoke a land disturbance permit or a building permit if the permit holder fails to comply with the permit or with any provision of this chapter. Permits revoked under this section shall not be reinstated until the cause for revocation has been corrected or until a mitigation plan for the property has been submitted by the former permit holder and approved by the director.

(Ord. No. 13859 § 1, 11-15-93)

#### **Sec. 12A-8. - Stop work orders.**

The director is authorized to issue a stop work order whenever he believes unlawful land disturbance activities are occurring. A stop work order shall be in writing and shall be given to the owner of the property involved or to the owner's agent or to the person engaged in the land disturbance activity. It shall be unlawful for any person to engage in any land disturbance activity or to permit another person to engage in any land disturbance activity in violation of a stop work order.

(Ord. No. 13859 § 1, 11-15-93)

#### **Sec. 12A-9. - Reserved.**

#### **Sec. 12A-10. - Violations.**

Whenever any act is required by this chapter, it shall be unlawful to fail to do that act. Whenever any act is prohibited by this chapter, it shall be unlawful to do that act.

(Ord. No. 13859 § 1, 11-15-93)

#### **Sec. 12A-11. - Penalties.**

- (a) Violations of this chapter shall be punishable in the same manner as Class A misdemeanors under Chapter 16 of this Code.
- (b) Every day any violation of this chapter shall continue shall constitute a separate offense.
- (c) Every one thousand (1,000) square feet of climax forest removed, destroyed or damaged in violation of this chapter shall constitute a separate offense.

(Ord. No. 13859 § 1, 11-15-93; Ord. No. 18164, § 1, 7-19-04)

#### **Sec. 12A-12. - Remedies not exclusive.**

The remedies set forth in this chapter are cumulative and not exclusive. The city may pursue any available civil remedies in addition to prosecuting violations in municipal court and following the abatement procedures of this chapter.

(Ord. No. 19442, § 1, 3-5-07)

#### **Secs. 12A-13—12A-31. - Reserved.**

### **ARTICLE II. - LAND DISTURBANCE PERMIT REQUIREMENTS**

#### **Sec. 12A-32. - Permit required.**

A land disturbance permit is required for any land disturbance activity including streets and utilities construction on any site in

excess of one (1) acre. All applications for land disturbance permits shall be submitted on forms issued by the director and shall contain all information required by the director. Phased development of tracts larger than one (1) acre does not exempt the developer from the provisions of this chapter.

*(Ord. No. 13019, § 1, 7-1-91; Ord. No. 13258, § 1, 3-2-92; Ord. No. 13859 § 1, 11-15-93; Ord. No. 17278, § 1, 5-6-02)*

#### **Sec. 12A-33. - Site development plan.**

(a)

Applications for land disturbance permits for any area greater than one (1) acre shall be accompanied by a detailed site development plan which shall include, a tree preservation plan, a landscaping plan, a soil erosion control plan, and a storm water management plan conforming to the provisions of this chapter. Where practical, drawings may be combined to contain all of the required plans.

(b)

No final plat shall be approved prior to approval of a site development plan encompassing the entire area being platted. No building permit shall be issued in a planned district prior to approval of a site development plan encompassing the entire area included in the plan.

*(Ord. No. 13019, § 1, 7-1-91; Ord. No. 13258, § 1, 3-2-92; Ord. No. 13859 § 1, 11-15-93; Ord. No. 17278, § 1, 5-6-02; Ord. No. 18164, § 1, 7-19-04; Ord. No. 18493, § 1, 5-2-05)*

#### **Sec. 12A-34. - Conformance with permit and plans.**

All land disturbance activity on property for which a land disturbance permit has been issued shall conform to the requirements of the permit and to the provisions of the approved site development plan.

*(Ord. No. 13859 § 1, 11-15-93)*

#### **Sec. 12A-35. - Exemptions.**

(a)

A land disturbance permit shall not be required for sites one (1) acre or less or for individual lots in R-1 and R-2 zoned development except that erosion control provisions, grading limits, low floor elevation, and storm drainage work, including piping, swaling, and ditching, shall be shown on the plot plan and approved prior to issuance of a building permit. All land disturbance activity on such property shall conform to the provisions of the approved plot plan.

(b)

Agricultural activities are exempted from the provisions of this chapter except that a land disturbance permit is required for the mechanized clearing or removal of trees on sites in excess of one (1) acre.

*(Ord. No. 13019, § 1, 7-1-91; Ord. No. 13859 § 1, 11-15-93; Ord. No. 17278, § 1, 5-6-02; Ord. No. 18164, § 1, 7-19-04)*

#### **Sec. 12A-36. - Application fee.**

An application for a land disturbance permit shall be accompanied by a non-refundable fee of two hundred dollars (\$200.00). The requirement of this section shall not apply to plot plan applications for sites one (1) acre or less or for individual lots in R-1 and R-2 zoned developments.

*(Ord. No. 18216, § 1, 9-20-04)*

#### **Secs. 12A-37—12A-48. - Reserved.**

### **ARTICLE III. - TREE PRESERVATION AND LANDSCAPING REQUIREMENTS**

#### **Sec. 12A-49. - Clearing of trees; permit required.**

(a)

The mechanized clearing of trees, logging of trees or clear-cutting of trees by any means on tracts of land over one (1) acre shall be unlawful unless done in compliance with a land disturbance permit.

(b)

A minimum of twenty-five (25) percent of any climax forest area on any tract of land subject to land preservation requirements shall be maintained. Trees thus retained will count toward landscaping requirements contained in the zoning ordinance.

(c)

When logging is to occur prior to approval of a tree preservation plan or on property not otherwise subject to land disturbance requirements, a logging plan demonstrating compliance with tree preservation requirements must be submitted to the director. This logging plan will include the area in square feet of forest land, the area in square feet of climax forest, and demonstrate that twenty-five (25) percent of the area of climax forest will be preserved after logging. Each logging operation on the same site will require a separate land disturbance permit. Under no circumstance shall successive logging remove greater than seventy-five (75) percent of the climax forest present upon the site before logging.

(d)

A landscaping plan demonstrating compliance with the specific requirements of the existing zoning of the site shall accompany all applications for land disturbance permits. The plan will be a drawing of the site sufficient in detail to illustrate the features of the plan. The plan may be incorporated with other drawings or documents but shall contain the following information.

(1)

The area, in square feet or acres, of any climax forest areas on the site and those portions, in square feet or acres, of the climax forest to be preserved. The areas may be determined by actual field measurement or planimetry of scaled aerial photographs.

(2)

The number, spacing, size and species of planting materials, including new trees and final ground cover that will be planted as part of the landscaping plan.

(3)

The size and location of any walls, earth berms, and fences.

(4)

Provisions for watering, soil stabilization, plant protection and maintenance.

(5)

Location and description of any barriers to be erected to protect any vegetation from damage both during and after construction.

(e)

Tree protection shall be required prior to and during the activities associated with the land disturbance permit in accordance with administrative standards promulgated and enforced by the director, but under no circumstances shall activities with the potential of causing damage to the root systems of trees be allowed within the perimeter of the drip line of the trees being preserved, protected or planted as part of the landscaping plan.

(f)

If any of the trees required to be retained or trees planted as part of the landscaping plan should die within a period of eighteen (18) months after completion of the activities associated with the land disturbance permit, the owner of the property shall replace the trees within six (6) months at a ratio of one-to-one with an approved tree having a minimum diameter of two (2) inches measured at a point one (1) foot above natural grade. Shrubbery or other plantings which die within eighteen (18) months of completion of the activities shall be replaced in kind within six (6) months.

(g)

All landscaping work must be completed prior to the final inspection of a building or within one (1) year of issuance of the land disturbance permit, whichever occurs later. If completion of the work or building is at such time of the year that the landscaping cannot be completed, a performance bond or other acceptable financial instrument for completion of the work may be accepted to allow the issuance of a certificate of occupancy.

(h)

Landscaping plans may be amended during or after development with the approval of the director, but in all cases must comply with the current landscaping requirements of the zoning district in which the site is located.

*(Ord. No. 13019, § 1, 7-1-91; Ord. No. 13258, § 1, 3-2-92; Ord. No. 14389 § 1, 3-6-95; Ord. No. 17278, § 1, 5-6-02; Ord. No. 18164, § 1, 7-19-04)*

## **Secs. 12A-50—12A-65. - Reserved.**

## **ARTICLE IV. - EROSION CONTROL REQUIREMENTS**

### **Sec. 12A-66. - Erosion control requirements.**

(a)

A soil erosion control plan shall accompany all applications for land disturbance permits. The purpose of the plan is to clearly establish what measures will be taken to prevent erosion and off site sedimentation during and after development. The erosion control plan shall consist of two parts, a site grading and drainage plan and a narrative report describing the nature and scope of the work. The plan shall be prepared and certified by a registered professional engineer, licensed in the State of Missouri.

(b)

Erosion and sedimentation control measures must be designed to provide protection from the runoff from a 10-year return frequency, 24-hour duration storm.

(c)

All surfaces must be stable and non-erosive within the lesser of thirty (30) working days or one hundred twenty (120) calendar days after completion of the work authorized by the land disturbance permit. When such work is associated with the construction of a building, no certificate of occupancy shall be issued until such surfaces are stable and non-erosive. If completion of the work or building is at such time of the year that stabilization with ground cover is not possible, a performance bond or other acceptable financial instrument for completion of the work may be accepted to allow the issuance of a certificate of occupancy.

*(Ord. No. 13019, § 1, 7-1-91)*

### **Sec. 12A-67. - Site grading and drainage plan.**

(a)

The site grading and drainage plan shall include the following:

(1)

*Existing features.*

a.

A drainage area map showing topography of the entire drainage basin(s) contributing to the site. The scale of the map shall be no smaller than 1 inch = 200 feet for drainage areas up to five hundred (500) acres. A topographic map of appropriate scale shall be provided for larger areas upstream from the design area. The drainage map is to show total acreage of the site and the acreage of all drainage areas contributing to the site.

b.

A site plan having a scale no smaller than one (1) inch equals one hundred (100) feet and existing contour intervals of not more than five (5) feet. The plan shall show topographic features such as highways, utilities, natural watercourses, existing drainage facilities and structures, adjacent property lines, north arrow, scale, and vicinity map. The site plan is to also show the limits of the adopted one hundred-year flood plain on the site and any critical environmental areas such as streams, lakes, ponds and wetlands. Area and geological types of predominant soils as well as the nature and extent of existing vegetation shall also be shown on the plan.

(2)

*Proposed alterations of the site.*

a.

A plan drawing that shows the limits of clearing and grading, cuts and fills, and final contours at not more than two (2) feet intervals. The plan shall identify the phasing of the grading, showing the area(s) to be denuded and the maximum time those areas will remain disturbed (not to exceed the lesser of thirty (30) working days or one hundred twenty (120) calendar days after completion of the work). The plan shall show areas to be used for storage of topsoil and excavated subsoil and plans for access to the site during wet weather. The requirements of section 12A-71 shall apply to stored stockpiles of soil.

b.

A final site plan showing the location or relocation of all utilities, planned streets, roads, buildings, parking lots, and structures, and all permanent storm water management facilities.

(3)

*Temporary erosion and sediment control measures during active construction.*

a.

Drawings shall be provided showing types of measures and facilities needed and the location of those measures and facilities with dimensional details. All permanent deviations in overland flow drainage patterns and the location of ingress and egress points with the planned protection provisions are to be indicated. § 12A-69

(4)

*Permanent erosion and sediment control measures for long term protection.*

a.

Drawings shall be provided showing types of measures and facilities needed and the location of those measures and facilities with dimensional details. All permanent deviations in overland flow drainage patterns are to be indicated.

(Ord. No. 13019, § 1, 7-1-91; Ord. No. 20802, § 1, 12-6-10)

**Sec. 12A-68. - Narrative report to accompany plan.**

(a)

The narrative report describing the nature and scope of the work shall include the following:

(1)

The report shall briefly describe the overall project and shall incorporate an explanation of existing significant drainage problems contributing to erosion and siltation problems, particularly those that will be intensified by the alteration to the construction site.

(2)

The report shall explain how the project design insures that the project does not promote or aggravate an existing off-site erosion, siltation, or drainage problem. The narrative should include a description of the effect of land disturbance activities off-site.

(3)

Runoff producing factors under existing conditions and the estimated changes after construction must be provided.

(4)

For design of the erosion control measures and facilities, the report shall include calculations of the peak runoff from a 10-year return frequency, 24-hour duration storm.

(5)

Long range management of the erosion and siltation control facilities must be addressed in the report.

(6)

The phasing or staging of the land disturbing activity is to be described including information on the sequence of land clearing operations, specifying the maximum area and time span the area will be left denuded, the provisions for the removal, protection and stockpiling of soil, the types of major earth moving and grading activities, dust control

measures, and the order of placement of control facility installations.

(7)

Explanations for the selection of the erosion and siltation control measures utilized shall be provided.

(8)

A schedule shall be provided for inspection and maintenance of the erosion and sediment control facilities to insure maximum effectiveness of the protective measures and to assure that preventive maintenance efforts will be carried out when needed. The report should also include a description of plans for resodding or reseeded of vegetated areas and repair or reconstruction of damaged structural measures, and the method and frequency of removal and disposal of waste materials removed from the control facilities or project area including the disposal of temporary structural measures after they have served their purpose.

(Ord. No. 13019, § 1, 7-1-91)

#### **Sec. 12A-69. - Grading and pavement permits.**

No permit for grading or constructing any public street shall be issued until the temporary erosion control measures set forth in the site grading and drainage plan, or in the plot plan for a site exempt from land disturbance permit requirements, have been properly installed.

(Ord. No. 13859 § 1, 11-15-93)

#### **Sec. 12A-70. - Temporary erosion control measures.**

The temporary erosion control measures described in the site grading and drainage plan, or in the plot plan for a site exempt from the land disturbance permit requirement, shall be properly installed prior to commencement of any land disturbance activity and shall be properly maintained at all times until all land surfaces on the property become stable and non-erosive.

(Ord. No. 13859 § 1, 11-15-93)

#### **Sec. 12A-71. - Stockpiles of soil.**

(a)

A single stockpile of soil shall not exceed forty (40) feet in height or three (3) acres in area.

(b)

The maximum allowed height of a stockpile of soil is determined by the minimum distance from each of the categories in the following chart:

Stockpile Height	Minimum Distance from a Permitted Structure	Minimum Distance from an "Exterior"* Public Right-of-Way	Minimum Distance from an "Exterior"* Lot Line	Minimum Distance from Stream Buffer Outer Zone of Type I and II Streams
≥30 feet – 40 feet	300 feet	200 feet	100 feet	100 feet
≥20 feet <30 feet	300 feet	150 feet	100 feet	100 feet
≥10 feet <20 feet	100 feet	100 feet	100 feet	100 feet
0 feet <10 feet	10 feet	10 feet	10 feet	10 feet

\*"Exterior" refers to the perimeter of the subdivision or development. The minimum distances in the chart do not apply to the internal roads and lot lines within a subdivision or development.

(c)

The side slope of a stockpile of soil shall not exceed a 3:1 ratio.

(d)

Stockpiles of soil are not permitted in a stream buffer.

(e)

Stockpiles of soil shall be temporarily seeded in accordance with the Erosion and Sediment Control Manual issued by the director. The working face of the stockpile, however, need not be seeded.

(f)

Stockpiles of soil that meet the requirements of this section may remain in place for up to three (3) years after issuance of a land disturbance permit. For good cause, the director may extend this time limit for intervals of up to three (3) years. At least sixty (60) days before the time limit expires, the applicant for such an extension must submit a letter to the director explaining the reason for the requested extension. The letter must be accompanied by a list of the names and addresses of the owners of all land within lines drawn parallel to and one hundred eighty-five (185) feet from the boundaries of the property on which the stockpile is located. The applicant shall send a copy of the letter to each of the property owners. If the director grants an extension, the director shall notify each of the property owners of the decision and advise the property owners of their right to appeal the decision to the board of adjustment under article VI.

(g)

When the time limit for a stockpile of soil has expired, and no extension has been granted, the property owner must either remove the stockpile or grade it to a slope of no greater than a 4:1 ratio and permanently seed it in accordance with the



Erosion and Sediment Control Manual issued by the director.

(h)

Subsections (a) through (e) shall not apply to stockpiles of soil existing on November 1, 2010; provided that all such stockpiles must be removed no later than November 1, 2013 unless an extension is granted under subsection (f).

(i)

This section shall not apply to soil stockpiled in connection with any street construction project.

(Ord. No. 20802, § 1, 12-6-10)

### **Secs. 12A-72—12A-84. - Reserved.**

## **ARTICLE V. - STORMWATER MANAGEMENT**

### **\*Editor's note—**

Ord. No. 19442, § 2, adopted March 5, 2007, repealed former Art. V, in its entirety, and enacted provisions designated as a new Art. V to read as herein set out. Former Art. V was entitled, "Storm Water Management Requirements." See the Code Comparative Table for a detailed analysis of inclusion.

### **Sec. 12A-85. - Legislative findings.**

The city council makes the following legislative findings:

(1)

Land development projects increase impervious surfaces resulting in increased stormwater runoff rates and volumes, flooding, stream channel erosion, sediment transport and deposition, and increased quantities of water-borne pollutants.

(2)

Stormwater runoff, soil erosion and non-point source pollution can be most cost-effectively controlled and minimized through land use regulation and preventative measures aimed at reducing stormwater runoff from development sites.

(3)

The regulations set forth in this article reasonably reduce the harm caused by land development projects and are in the public interest.

(Ord. No. 19442, § 2, 3-5-07)

### **Sec. 12A-86. - Purpose.**

The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety and welfare of the public. This article is intended to meet that purpose through the following objectives:

(1)

Minimize increases in stormwater runoff from any development in order to reduce flooding, siltation and streambank erosion and stream channel degradation;

(2)

Minimize increases in non-point source pollution caused by stormwater runoff from development which would otherwise degrade local water quality;

(3)

Minimize the total annual volume of surface water runoff which flows from any specific site during and following development to not exceed the predevelopment hydrologic regime to the maximum extent practicable; and

(4)

Reduce stormwater runoff rates and volumes, soil erosion and non-point source pollution, wherever possible, through stormwater management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.

(Ord. No. 19442, § 2, 3-5-07)

### **Sec. 12A-87. - Applicability.**

(a)

This article shall apply to all developments and redevelopments that alter the surface of the land, including but not limited to, pavement, buildings and structures with the following exceptions:

(1)

Single-family and two-family lots within an approved preliminary plat;

(2)

Logging activity performed with a city-approved logging plan; and

(3)

Additions or modifications to single-family and two-family structures.

- (b) Stormwater detention is not required for redevelopment within the central business district.
- (c) Stormwater management shall be provided for land in zoning districts PUD, O-P, C-P, M-R and M-P, for which a conceptual stormwater management plan was approved before September 4, 2007 in accordance with the approved conceptual stormwater management plan or in accordance with this article.  
(Ord. No. 19442, § 2, 3-5-07)

#### **Sec. 12A-88. - Stormwater management plan required.**

- (a) A stormwater management plan is required for all development and redevelopment projects subject to this article.
- (b) A stormwater management plan must be submitted and approved by the director before issuance of a land disturbance permit and before approval of a final plat or a development plan. The stormwater management plan shall be prepared and certified by a registered professional engineer licensed in the State of Missouri.
- (c) The stormwater management plan must show all components of the storm drainage system including street curbs, inlets and piping, junction boxes, engineered and natural channels and stormwater management facilities (for example, retention and detention ponds, bioswales, bioretention areas, etc.). The stormwater management plan may be prepared in conjunction with or separate from the soil erosion plan.
- (d) It is recommended that a preliminary stormwater management plan be submitted early in the review process to allow time for city staff to discuss plan concepts with the developer. The stormwater management plan will be discussed as part of the concept review for any proposed development.
- (e) The stormwater management plan must comply with all requirements of the city's current Stormwater Management and Water Quality Manual.
- (f) The following information must be submitted with a stormwater management plan:
  - (1) *Worksheets.* All calculations and worksheets used in plan preparation and BMP selection.
  - (2) *Calculations.* Hydrologic and hydraulic design calculations for the pre-development and post-development for the design conditions specified in the Stormwater Management and Water Quality Manual. These calculations shall include: description of the design storm frequency, intensity and duration; time of concentration; soil curve numbers; peak runoff rates and total volumes for the watershed area; infiltration rates where applicable; culvert capacities; flow velocities; data on the increase in rate and volume of runoff for the design storms referenced in the Stormwater Management and Water Quality Manual; and, documentation of sources for all computation methods and field test results.
  - (3) *Soils information.* When a stormwater management facility relies on the hydrologic properties of the soils (such as an infiltration basin) the developer shall submit a soils report. The soils report shall be based on onsite boring logs or pit profiles. The number and location of required soil boring or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the facility.
  - (4) *Landscaping information.* The developer must include a detailed landscaping and vegetative restoration plan as part of the stormwater management plan. Details on maintenance of the vegetation shall be included in the operation and maintenance plan. The landscaping plan component must be prepared by an individual who can demonstrate knowledge of landscape design or by Missouri Department of Conservation personnel.
- (g) The stormwater management plan must include a written operation and maintenance manual for the permanent stormwater management facilities, including landscaping and vegetative cover, proposed as part of the development. This is required whether the facilities are to be publicly or privately maintained. Approval of the operation and maintenance manual is a part of the overall plan approval process.  
(Ord. No. 19442, § 2, 3-5-07)

#### **Sec. 12A-89. - Stormwater pollution prevention plan required.**

If a proposed development includes activities with higher potential pollutant loadings, the director may require the developer to submit a stormwater pollution prevention plan. The director should be consulted before plan preparation if the developer suspects additional stormwater management requirements would be necessary in order to address specific pollutants.

(Ord. No. 19442, § 2, 3-5-07)

#### **Sec. 12A-90. - Stormwater management performance standards.**

The following general performance standards shall be followed in the preparation of stormwater management plans:

- (1) BMP's shall be used to control the peak flow rates of stormwater discharge associated with specified design storms and to reduce the generation of stormwater runoff. These practices must use pervious areas to treat stormwater and to infiltrate stormwater runoff from driveways, sidewalks, roof tops and parking lots to the maximum extent practicable in order to improve water quality and reduce the quantity of stormwater runoff.
- (2) Annual groundwater recharge rates shall be maintained to the maximum extent practicable, by promoting infiltration by the use of structural and nonstructural methods. Annual recharge from the post-development sites should mimic the annual recharge from pre-development site conditions.
- (3) Structural stormwater facilities shall remove eighty (80) percent of the annual post-development total suspended solids load. It is presumed that facilities comply with this performance standard if they are:
  - a. Sized to capture the prescribed water quality volume;
  - b. Designed in accordance with the specific requirements and level of service criteria set out in the Stormwater Management and Water Quality Manual; and
  - c. Constructed properly and maintained regularly.

(Ord. No. 19442, § 2, 3-5-07)

#### **Sec. 12A-91. - Stormwater Management and Water Quality Manual.**

- (a) The city council approves the Stormwater Management and Water Quality Manual prepared by the public works department dated January, 2007. The director is authorized to revise the Water Quality Manual periodically as advances in stormwater control practices evolve. All such revisions must be consistent with the provisions of this article.
- (b) The director is authorized to allow alternate and equivalent best management practices when using the level of service method outlined in the Water Quality Manual. The director shall consider alternate designs of best management practices when it is fully demonstrated that the alternate designs are equal to or better than designs contained in the Water Quality Manual.
- (c) Any person who constructs, reconstructs, alters or repairs a stormwater management facility for which a permit is required shall conduct such work in accordance with the Water Quality Manual.

(Ord. No. 19442, § 2, 3-5-07)

#### **Sec. 12A-92. - As built drawings.**

As built construction drawings that show the final design specifications and are certified by a professional engineer are required on all permanent stormwater management facilities. The as built drawings must be submitted before city approval or acceptance of the facilities.

(Ord. No. 19442, § 2, 3-5-07)

#### **Sec. 12A-93. - Permit required.**

No portion of a storm drainage system including stormwater management facilities may be constructed, reconstructed, altered, modified or repaired without first obtaining a permit from the director. No such permit shall be issued until the director is satisfied that the plans for the work have been prepared in accordance with an approved stormwater management plan and with the Stormwater Management and Water Quality Manual and until the applicant has posted a performance bond, letter of credit, cash escrow or other performance security acceptable to the director, in the city's favor assuring the construction, reconstruction, alteration, modification or repair of all stormwater management facilities authorized by the permit. The performance security shall be in the amount of the estimated cost of the project.

(Ord. No. 19442, § 2, 3-5-07)

#### **Sec. 12A-94. - Certificate of occupancy; when issued.**

No certificate of occupancy shall be issued for a structure on any property subject to this article until construction of the required stormwater management facilities is completed in accordance with the approved stormwater management plan. If completion of the work or structure is at such time of the year that completion of the required stormwater management facilities is not feasible, a performance bond or other acceptable financial instrument for the estimated cost of completion of the work may be accepted to allow the issuance of a certificate of occupancy.

(Ord. No. 19442, § 2, 3-5-07)

## **Sec. 12A-95. - Maintenance and repair of stormwater management facilities.**

(a)

Before approval of a stormwater management plan, the property owner must execute an easement in favor of the city allowing the city access to all stormwater management facilities on the property for inspection and, if the facility is to be maintained by the city, for maintenance.

(b)

Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant, which must be approved by the director before final plat or plan approval and subsequently be recorded by the city with the Boone County Recorder of Deeds. The covenant will include a schedule for maintenance of the facilities to insure proper function of each stormwater management facility. The covenant shall also include a schedule for inspections of each facility to ensure proper function of each stormwater management facility between scheduled maintenance functions.

The director, in lieu of a maintenance covenant, may accept dedication of stormwater management facilities for city maintenance based on specific criteria developed by the director and generally limited to those stormwater management facilities which serve multiple properties. Any stormwater management facility accepted by the city for maintenance must meet all the requirements of this article and include adequate access easements for inspection and regular maintenance.

(c)

All stormwater management facilities shall be inspected at least once each year to document maintenance and repair needs and to ensure compliance with this article. The facilities should also be inspected after each heavy rainfall and any necessary maintenance should be performed such as removal of silt, litter and debris from all catch basins, inlets, pipes and outlet structures.

All maintenance needs must be addressed in a timely manner. The inspection and maintenance schedule may be modified for each facility based on results of the initial inspection program as deemed necessary to be fully compliant with the purpose of this article.

(d)

City inspections may be routine, random or complaint driven. Inspections may involve full evaluation of the physical structure and condition of the facility; review of the prior inspection, repair and maintenance records; and sampling of the surface water, discharges and groundwater as deemed necessary.

(e)

Persons responsible for the operation and maintenance of stormwater management facilities shall make records of the inspection, repair, maintenance and any modifications to the facilities and shall retain these records for a minimum of five (5) years. These records shall be made available to the director during inspection of the facility or at any time upon request.

(f)

Failure to properly maintain a stormwater management facility is hereby declared a nuisance and may be abated under the procedures set forth in section 12A-202.

*(Ord. No. 19442, § 2, 3-5-07)*

## **Secs. 12A-96—12A-108. - Reserved.**

## **ARTICLE VI. - APPEALS AND VARIANCES**

### **Sec. 12A-109. - Appeals.**

Any person aggrieved by any decision of the director in the administration or enforcement of this chapter, other than the nuisance abatement provisions, may appeal such decision to the board of adjustment.

*(Ord. No. 13019, § 1, 7-1-91)*

### **Sec. 12A-110. - Variances.**

(a)

Any property owner may petition the board of adjustment for a variance from strict compliance with the requirements of this chapter. The petition shall be in writing and shall state the grounds for the petition and all facts relied upon by petitioner.

(b)

The board of adjustment shall not grant a variance from the requirements of this chapter unless it shall make all of the following findings:

(1)

Good and sufficient cause based on an unreasonable burden or hardship has been proved.

(2)

The granting of the variance would not result in any increase in quantity or velocity of flow, degradation of water quality, or negative impacts upon adjoining or downstream properties, nor upon the stormwater system.

(3)

The degree of variance is the minimum necessary to afford relief from the unreasonable burden or hardship imposed by the requirements of this chapter;

(4)

The variance may be granted without defeating the public health, safety and welfare purposes and intent of this chapter.

(c)

The board may grant a variance to the stormwater management requirements of Article V only if at least one (1) of the following conditions exist:

(1)

Alternative requirements for onsite management of stormwater discharges have been established in a stormwater management plan approved by the director.

(2)

Provisions are made to manage stormwater by an existing offsite facility that is adequately sized to provide a level of stormwater control at least equal to that which would be afforded by onsite practices and there is a legally obligated entity responsible for long-term maintenance of the offsite facility.

(3)

The board finds that meeting the minimum onsite management requirements is not feasible because of physical characteristics of the site.

The board may not vary the stormwater management requirements of Article V if the variance would result in any of the following impacts in the downstream waterway:

(1)

Deterioration of existing culverts, bridges, dams or other structures;

(2)

Degradation of biological functions or habitat;

(3)

Accelerated stream bank or stream bed erosion or siltation;

(4)

Increased threat of flood damage.

If a variance granted by the board will likely result in a lower level of stormwater control, the board shall impose reasonable mitigation measures including, but not limited to, the following:

(1)

The purchase and donation of privately owned lands or the grant of an easement to be dedicated for preservation or reforestation. These lands must be adjacent to a stream corridor in order to provide permanent buffer areas to protect water quality and aquatic habitat.

(2)

The construction of a stormwater management facility or other drainage improvements on previously developed property, whether public or private, which currently lacks stormwater management facilities, designed and constructed in accordance with the standards and purposes of this chapter and the city's Stormwater Management and Water Quality Manual.

(3)

At the petitioner's request, monetary contributions to fund stormwater related studies and projects including regional wetland delineation studies, stream monitoring studies, hydrologic studies, stream assessment studies, including stream monitoring studies for water quality and macroinvertebrates, stream flow monitoring, threatened and endangered species studies and stream restoration projects. The monetary contribution shall be in accordance with a schedule established by the director and shall be based on the cubic feet of storage required but not provided for the stormwater management of the property in question.

(Ord. No. 13019, § 1, 7-1-91; Ord. No. 19442, § 3, 3-5-07)

### **Sec. 12A-111. - Procedure.**

The procedures set forth in Chapter 29 for appeals to the board of adjustment shall apply to petitions for appeals or variances from the requirements of this chapter.

(Ord. No. 13019, § 1, 7-1-91)

### **Secs. 12A-112—12A-125. - Reserved.**

## **ARTICLE VII. - CLEAN FILL**

**\*Editor's note—**

Section 12A-130 of this article shall be effective July 20, 1992, the remaining sections of this article shall take effect September 1, 1992.

### **Sec. 12A-126. - Permits required.**

It shall be unlawful to dump, assist in the dumping, direct, solicit or allow the dumping of clean fill at any site within the city unless a clean fill permit for such dumping has been issued by the director. A permit shall not be required to dump topsoil for

landscaping or gardening purposes.

*(Ord. No. 13374, § 1, 7-20-92)*

#### **Sec. 12A-127. - Applications for clean fill permits.**

- (a) No clean fill permit shall be issued unless an application for such permit has been filed with the director which sets forth the location and street address of the dump site and the name and address of the legal owner of the dump site.
- (b) No clean fill permit shall be issued on sites two (2) acres or larger unless all applicable requirements of a land disturbance permit are satisfied.
- (c) No clean fill permit shall be issued on sites less than two (2) acres unless the application for the permit sets forth reasonable and effective methods to control erosion and to keep adjacent streets and properties free from the clean fill and any mud or other material from the dump site.

*(Ord. No. 13374, § 1, 7-20-92)*

#### **Sec. 12A-128. - Clean fill permits.**

The director shall issue a clean fill permit only after he is satisfied that the application complies with the provisions of this article. Every clean fill permit shall have the terms and conditions under which the permit is granted clearly stated upon it.

*(Ord. No. 13374, § 1, 7-20-92)*

#### **Sec. 12A-129. - Clean fill site maintenance.**

- (a) It shall be a condition of every clean fill permit that no actively used clean fill site shall be left in a rough or unlevelled condition for more than ten (10) consecutive days.
- (b) Any clean fill site which does not receive clean fill for thirty (30) days shall be considered an inactive fill site.
- (c) It shall be a condition of every clean fill permit that inactive fill sites must be seeded and mulched within thirty (30) days of becoming an inactive fill site, provided the period of inactivity is such that seeding and mulching can occur. Otherwise, the owner of the site shall meet performance guarantees as specified for land disturbance permits to assure that seeding and mulching will occur as soon as weather permits.

*(Ord. No. 13374, § 1, 7-20-92)*

#### **Sec. 12A-130. - Hours of operation.**

It shall be unlawful to interfere with or disturb the peace and quiet of neighboring inhabitants by dumping in a clean fill site other than between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and between 9:00 a.m. and 5:00 p.m. on Saturdays. Nothing in this section shall prohibit dumping in a clean fill site in connection with disaster cleanup or in connection with work to maintain or restore utility service.

*(Ord. No. 13374, § 1, 7-20-92)*

#### **Sec. 12A-131. - Compliance with permit terms.**

It shall be unlawful to dump clean fill or to allow the dumping of clean fill or to maintain a clean fill dump site in any manner which is in violation of the terms or conditions of the clean fill permit or in any manner other than in conformity with the methods set out in an approved clean fill permit application.

*(Ord. No. 13374, § 1, 7-20-92)*

#### **Sec. 12A-132. - Revocation of permit.**

The director may revoke a clean fill permit if the permit application contains any false statement or misrepresentation of fact. The director may revoke a clean fill permit if the permit holder fails to comply with the permit conditions or any provision of this article.

*(Ord. No. 13374, § 1, 7-20-92)*

#### **Sec. 12A-133. - Land disturbance permits.**

Nothing in this article shall exempt any person from the land disturbance permit requirements of this chapter.

*(Ord. No. 13374, § 1, 7-20-92)*

**Secs. 12A-134—12A-147. - Reserved.**

**ARTICLE VIII. - STORMWATER UTILITY**

**\*Editor's note—**

This article is in full force and effect from and after October 1, 1993, and the charges hereby established shall be applied to the utility bills beginning with the first cycle billed in October, 1993.

**Sec. 12A-148. - Stormwater utility charge.**

There is hereby established a monthly stormwater utility charge to be paid by the occupant or owner of each parcel of developed land within the city in accordance with the following table:

Category of land use	Monthly Charge
Multiple-family buildings having more than four units; single-family residences having a main floor area less than 750 sq. ft.	\$0.65 per unit
Multiple-family buildings having four or less units; mobile homes; single-family residences having a main floor area of from 750 sq. ft. to 1,250 sq. ft.	\$0.85 per unit
Single-family residences having a main floor area of from 1,251 sq. ft. to 2,000 sq. ft.	\$1.15 per unit
Single-family residence having a main floor area more than 2,000 sq. ft.	\$1.35 per unit
All non-residential uses of developed land	\$4.00 pr \$0.04 per 100 square feet impervious area, whichever is greater.

(Ord. No. 13590 § 1, 2-15-93; Ord. No. 14212 § 1, 9-19-94)

**Sec. 12A-149. - Liability for charge.**

The owner(s) and occupant(s) of developed land, if different, shall be jointly and severally liable for payment of the stormwater utility charge.

(Ord. No. 13590 § 1, 2-15-93)

**Sec. 12A-150. - Exemptions.**

The stormwater utility charge shall not be imposed on the occupants or owners of streets or railroad rights-of-way.

(Ord. No. 13590 § 1, 2-15-93; Ord. No. 14249 § 1, 10-10-94)

**Sec. 12A-151. - Billing practices.**

(a)

*General.* The stormwater utility charge shall be billed by the director of finance in accordance with the provisions of this section and the accounts and billings procedures set forth in chapter 27. Except as otherwise herein provided, each city utility service customer shall be billed the stormwater utility charge for the premises where the customer receives water, electric, sewage or refuse collection utility service. Where there is no city water, electric, sewage or refuse collection utility service customer for a parcel of developed land, the stormwater utility charge shall be billed to the property owner.

(b)

*Multiple-family buildings.* A stormwater utility charge shall be billed to each utility service customer having an account for an individual dwelling unit in a multiple-family building. When no customer has an account for a dwelling unit, the stormwater utility charge for that unit

shall be billed to the property owner. At the request of the property owner, the stormwater utility charge for some or all dwelling units in a multiple-family building may be billed to the property owner.

(c)

*Nonresidential use.* Where there is more than one utility service customer for a parcel of land developed for a nonresidential use, the stormwater utility charge shall be billed to the property owner, except where the property owner and a tenant have agreed that the tenant shall be billed.

(Ord. No. 13590 § 1, 2-15-93)



### **Sec. 12A-152. - Reduction of charge for approved runoff control.**

The stormwater utility charge shall be reduced for the occupant or owner of nonresidential property where approved runoff control measures have been implemented, provided that all such runoff control facilities are privately owned and operated. The charge shall be reduced in proportion to the reduction in peak runoff. The director shall determine the percentage reduction in the charge, based on the ratio of peak runoff from the modified property to the peak runoff from the property without reduction in peak runoff.

(Ord. No. 13590 § 1, 2-15-93)

### **Sec. 12A-153. - Use of stormwater utility charge revenue.**

All revenue received from the stormwater utility charge shall be used solely for stormwater management purposes.

(Ord. No. 13590 § 1, 2-15-93)

### **Sec. 12A-154. - Computing main floor area and impervious surface.**

The director shall be responsible for computing the main floor area of single-family residences and the impervious surface of nonresidential uses subject to the stormwater utility charge. In making such computations, the director may rely on the accuracy of any public records.

(Ord. No. 13590 § 1, 2-15-93)

### **Sec. 12A-155—12A-159. - Reserved.**

## **ARTICLE IX. - DETECTION AND ELIMINATION OF ILLICIT STORM WATER DISCHARGES**

### **DIVISION 1. - IN GENERAL**

#### **Sec. 12A-160. - Purpose.**

The purpose of this article is to insure the health, safety and general welfare of the citizens of the City of Columbia by enhancing the water quality of water courses and water bodies to the maximum extent practicable as required by federal and state laws. This article establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system in order to comply with the requirements of the National Pollutant and Discharge Elimination System (NPDES) permit process. The objectives of this article are:

- (1) To regulate the contribution of pollutants by storm water discharges to the municipal separate storm sewer system or to any water course;
- (2) To prohibit illicit connections and discharges; and
- (3) To establish legal authority for inspections, surveillance and monitoring procedures necessary to insure compliance with this article.

(Ord. No. 18297, § 1, 11-1-04)

#### **Sec. 12A-161. - Definitions.**

The following definitions apply to this article:

*Accidental discharge.* A discharge prohibited by this article which occurs by chance and without planning or consideration prior to occurrence.

*Best management practices (BMP).* Activities, practices and procedures to prevent or control the discharge of pollutants directly or indirectly into the municipal storm drain system, waters of the state and waters of the United States. BMPs include but are not limited to treatment facilities to remove pollutants from storm waters; operating and maintenance procedures; facility management practices to control runoff, spills or leaks of storm water, waste disposal, and drainage from material storage; erosion and sediment control practices; the prohibition of specific activities, practices and procedures; and such other provisions the city determines appropriate for the control of pollutants.

*Clean Water Act.* The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.) and any subsequent amendments thereto.

*Contaminated.* Containing a harmful quantity of any substance.

*Contamination.* The presence of or entry into the municipal separate storm sewer system, waters of the state or waters of the United States of any substance which may be deleterious to the public health or quality of the water.



*Director.* The director of public works.

*Discharge.* Any addition or introduction of any pollutant, storm water or any other substance whatsoever into the municipal separate storm sewer system or into the waters of the state or waters of the United States.

*Discharger.* Any person who causes, allows, permits or is otherwise responsible for a discharge including any operator of a construction site or industrial facility.

*Enforcement official.* Any person designated by the director to enforce the provisions of this article.

*Environmental Protection Agency or EPA.* The United States Environmental Protection Agency or any duly authorized official of that agency.

*Hearing officer.* The director or a person designated by the director to conduct hearings under this article.

*Illicit connections.* An illicit connection is any drain or conveyance not specifically allowed by this article:

(1)

Which allows a discharge;

(2)

Which is connected to the storm drain system from indoor drains and sinks regardless of whether the drain or connection was previously allowed, permitted or approved by a governmental agency; or

(3)

Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps or equivalent records and approved by the city.

*Municipal separate storm sewer system.* The system of conveyances including roads with drainage systems, city streets, catch basins, curbs, gutters, ditches, manmade channels or storm drains owned and operated by the city and designed or used for collecting or conveying storm water and which is not intended for collecting or conveying sewage.

*National Pollutant Discharge Elimination System (NPDES).* The national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under Section 307, 402, 318 and 405 of the Federal Clean Water Act.

*Non-storm water discharge.* Any discharge to the storm drain system that is not composed entirely of storm water.

*Pollutant.* Anything which causes or contributes to pollution. Pollutants may include but are not limited to paints, varnishes and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes; yard wastes; refuse, rubbish, garbage, litter or other discarded or abandoned objects, articles and accumulations that may cause or contribute to pollution; floatables; pesticides, herbicides and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure, including but not limited to sediments, slurries and concrete rinsates; and noxious or offensive matter of any kind.

*Pollution.* The human made or human induced alteration of the quality of waters by waste to a degree which unreasonably affects, or has the potential to unreasonably affect, the waters for beneficial uses or the facilities which serve these beneficial uses.

*Storm drain system.* The municipal separate storm sewer system.

*Storm water.* Any flow occurring during or following any form of natural precipitation and resulting from such precipitation including snow melt.

*Storm water pollution prevention plan.* A document which describes the best management practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to storm water, storm water conveyance systems, and receiving waters to the maximum extent practicable.

(Ord. No. 18297, § 1, 11-1-04)

## **Sec. 12A-162. - Applicability.**

This article shall apply to all water entering the municipal separate storm sewer system unless explicitly exempted by this article.

(Ord. No. 18297, § 1, 11-1-04)

## **Sec. 12A-163. - Responsibility for administration.**

The director shall administer, implement and enforce the provisions of this article.

(Ord. No. 18297, § 1, 11-1-04)

### **Sec. 12A-164. - Regulatory consistency.**

This article shall be construed to assure consistency with the requirements of the Clean Water Act and regulatory requirements of the Missouri Department of Natural Resources.

*(Ord. No. 18297, § 1, 11-1-04)*

### **Sec. 12A-165. - Ultimate responsibility.**

The standards set forth in this article and promulgated pursuant to this article are minimum standards. Compliance with this article does not insure that there will be no contamination, pollution or unauthorized discharge of pollutants into the waters of the United States. This article shall not create liability on the part of the city or any agent or employee of the city for any damages that result from any discharges, reliance on this article or any administrative decision made under this article.

*(Ord. No. 18297, § 1, 11-1-04)*

### **Secs. 12A-166—12A-175. - Reserved.**

## **DIVISION 2. - PROHIBITIONS**

### **Sec. 12A-176. - Illegal discharges.**

(a)

Except as provided in subsection (b), it shall be unlawful for any person to discharge or cause to be discharged into the municipal separate storm sewer system or into any water course any material other than storm water.

(b)

The following discharges are exempt from the discharge prohibitions established by this article:

(1)

Waterline flushing or other potable water sources;

(2)

Landscape irrigation or lawn watering;

(3)

Diverted stream flows;

(4)

Rising groundwater;

(5)

Groundwater infiltration;

(6)

Uncontaminated pumped groundwater;

(7)

Foundation or footing drains (excluding active groundwater de-watering systems);

(8)

Crawlspace pumps, air conditioning condensation;

(9)

Springs;

(10)

Non-commercial washing of vehicles;

(11)

Natural riparian habitat or wetland flows;

(12)

Swimming pools (if de-chlorinated — less than one (1) ppm chlorine);

(13)

Fire fighting activities;

(14)

Other water not containing pollutants;

(15)

Discharges specified by the director as necessary to protect public health and safety;

(16)

Dye testing if notification is given to the director before the test; and

(17)

Any non-storm water discharge permitted under an NPDES permit, waiver or waste discharge order issued to the discharger and administered under the authority of the Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the municipal separate storm sewer system.

**Sec. 12A-177. - Illicit connections.**

(a)

It shall be unlawful for any person to construct, use, maintain or have an illicit connection.

(b)

This section expressly applies to illicit connections made in the past even if the connection was permissible under law or practices applicable or prevailing at the time of connection.

(Ord. No. 18297, § 1, 11-1-04)

**Sec. 12A-178. - Waste disposal prohibitions.**

It shall be unlawful for any person to place, deposit or dump or to cause or allow the placing, depositing or dumping any refuse, rubbish, yard waste, paper litter or other discarded or abandoned objects, articles and accumulations containing pollutants into the municipal separate storm sewer system or into any waterway.

(Ord. No. 18297, § 1, 11-1-04)

**Sec. 12A-179. - Connection of sanitary sewer prohibited.**

It shall be unlawful for any person to connect a line conveying sewage to the municipal separate storm sewer system or to allow such a connection to continue.

(Ord. No. 18297, § 1, 11-1-04)

**Sec. 12A-180. - Industrial or construction activity discharges.**

It shall be unlawful for any person subject to an industrial activity or construction NPDES storm water discharge permit to fail to comply with all provisions of such permit.

(Ord. No. 18297, § 1, 11-1-04)

**Sec. 12A-181. - Continuing violation.**

Each day that a violation of this article continues shall be deemed a separate offense.

(Ord. No. 18297, § 1, 11-1-04)

**Secs. 12A-182—12A-190. - Reserved.**

**DIVISION 3. - REGULATIONS AND MONITORING**

**Sec. 12A-191. - Best management practices.**

(a)

The city council may, by ordinance, adopt standards identifying best management practices (BMP) for any activity, operation or facility which may cause or contribute to pollution of storm water, the storm drain system, waters of the state or waters of the United States. These standards shall be on file in the office of the director. It shall be unlawful for any person undertaking any activity or owning or operating any facility subject to such standards to fail to comply with the standards.

(b)

The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal separate storm sewer system or water courses through the use of structural and non-structural BMPs. Any person responsible for property which is or may be the source of an illicit discharge may be required to implement additional structural and non-structural BMPs to prevent further discharge. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity to the extent practicable shall be deemed in compliance with provisions of this section. These BMPs shall be a part of the storm water pollution prevention plan as necessary for compliance with the requirements of the NPDES permit.

(Ord. No. 18297, § 1, 11-1-04)

**Sec. 12A-192. - Monitoring of discharges.**

(a)

*Applicability.* This section applies to all facilities which have storm water discharges associated with the facility activity including construction activity.

(b)

*Access to facilities.*

- (1) Enforcement officers are authorized to enter and inspect facilities subject to regulation under this article to determine compliance with this article. If a discharger has security measures in force which require proper identification and clearance before entering its premises, the discharger shall be given the opportunity to make the necessary arrangements to allow access to the enforcement officers. If an enforcement officer is denied entry to the property, the officer or city prosecutor may apply to the municipal court for a warrant under the provisions of Chapter 15 of this Code.
- (2) Facilities operators shall allow enforcement officials ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records which must be kept under the conditions of an NPDES permit, or local or other state permits to discharge storm water and the performance of any additional duties as defined by state and federal law. If an enforcement officer is denied such access, the officer or city prosecutor may apply to the municipal court for a warrant under the provisions of Chapter 15 of this Code.
- (3) The enforcement officer may install devices on any facility to monitor and sample the facility's storm water discharge. If an enforcement officer is not allowed to install such a device, the officer or city prosecutor may apply to the municipal court for a warrant under the provisions of Chapter 15 of this Code.
- (4) An enforcement officer may require a discharger to install monitoring equipment. The discharger shall maintain the facility sampling and monitoring equipment at all times in a safe and proper operating condition. All devices used to measure storm water flow and quality shall be calibrated to insure their accuracy.
- (5) At the request of an enforcement officer, a discharger shall promptly remove any obstructions to safe and easy access to a facility to be inspected. The obstructions shall not be replaced.

(Ord. No. 18297, § 1, 11-1-04)

#### **Secs. 12A-193—12A-200. - Reserved.**

#### **DIVISION 4. - NUISANCES**

##### **Sec. 12A-201. - Nuisances declared.**

- (a) Any discharge in violation of this article is a nuisance.
- (b) Any illicit connection is a nuisance.

(Ord. No. 18297, § 1, 11-1-04)

##### **Sec. 12A-202. - Abatement procedures.**

- (a) *Abatement notice.* When an enforcement official determines that a nuisance exists in violation of this article, the enforcement official may initiate a nuisance abatement procedure by serving an abatement notice on the owner of the property upon which the nuisance is believed to exist. The abatement notice shall contain the following:
  - (1) A description of the location and nature of the alleged nuisance;
  - (2) A statement of the acts necessary to abate the alleged nuisance;
  - (3) An order establishing the time for beginning and completing abatement of the alleged nuisance and requiring that abatement activities continue without unreasonable delay;
  - (4) Information on the right to a hearing and the manner of requesting a hearing to contest the enforcement official's abatement notice; and
  - (5) A statement that if the nuisance is not abated as ordered and if no request for hearing is made within the prescribed time, the city may abate the alleged nuisance and assess the costs against the property owner and the property.
- (b) *Service of abatement notice.*
  - (1) The enforcement official shall serve the abatement notice on the property owner by first class mail or by personal service in the same manner as legal process is served under any Missouri statute or court rule. Mailed notice shall be presumed received three (3) days after it is mailed.
  - (2) If the enforcement official is unable to obtain service by either of the above methods, service may be obtained by

publishing the abatement notice once in a newspaper of general circulation in the city and by posting the abatement notice on the property where the alleged nuisance exists. Notice shall be considered given on the date the notice is published or the notice is posted, whichever is later.

(c)

*Request for hearing.* The owner of property on which the nuisance is alleged to exist may contest the abatement notice by requesting a hearing. The request for hearing must be made in writing and received by the director within seven (7) days of service of the abatement notice. The request for hearing must be either hand-delivered to the office of the director or sent to the director by United States mail, facsimile machine or electronic mail. The request for hearing must state an address to which a notice of hearing may be sent.

(d)

*Notice of hearing.* At least ten (10) days written notice of the hearing shall be given to the property owner except in cases where the public health, safety or interest shall make a shorter time reasonable. Notice shall be hand-delivered to the property owner or mailed to the address provided by the property owner in the request for hearing. Notice shall be presumed received three (3) days after it is mailed.

(e)

*Hearing and decision.* The hearing officer shall conduct the hearing and enter a decision in accordance with the requirements of Chapter 536, RSMo. If the hearing officer determines that a nuisance exists as charged in the abatement notice, the hearing officer may enter an order of abatement directing that the nuisance be abated under such conditions and within such time as the hearing officer deems appropriate under the circumstances.

(f)

*Appeal.* An appeal from the decision of the hearing officer may be made to the circuit court of Boone County in accordance with Chapter 536, RSMo.

(Ord. No. 18297, § 1, 11-1-04)

### **Sec. 12A-203. - Abatement by city.**

If the order of abatement is not complied with or if no hearing is requested and the abatement notice is not complied with, the director may have the nuisance abated by city employees or by persons under contract with the city. No person shall enter private property to abate a nuisance unless the owner or occupant has consented to the entry or unless the municipal judge has issued a warrant for the entry.

(Ord. No. 18297, § 1, 11-1-04)

### **Sec. 12A-204. - Collection of abatement costs.**

(a)

The director shall certify the cost of abatement to the city clerk. The cost shall include administrative costs as well as the actual cost of abating the nuisance. The city clerk shall cause a special tax bill against the property to be prepared in the amount of the abatement costs. The tax bill from the date of its issuance shall be a lien on the property until paid and shall be prima facie evidence of the recitals therein and of its validity. No clerical error or informality in the tax bill or in the proceedings leading up to the issuance of the tax bill shall be a defense in an action to collect the tax bill. Tax bills issued under this section, if not paid when due, shall bear interest at the rate of eight (8) percent per annum.

(b)

The cost of abatement shall also constitute a personal obligation of the owner of the property and of any other person who caused the nuisance.

(Ord. No. 18297, § 1, 11-1-04)

### **Sec. 12A-205. - Emergency abatement.**

(a)

The director may abate any nuisance without following the abatement procedures of this article if the nuisance presents an immediate threat to the health, safety or welfare of any inhabitant of the city.

(b)

The director may assess the cost, including administrative costs, of abating a nuisance under this section against the property on which the nuisance was located. Before assessing costs, the director shall serve a bill of costs on the property owner. The bill of costs shall describe the nuisance that was abated, state the cost of abatement and inform the owner of the right and manner of requesting a hearing.

(c)

The bill of costs shall be served on the property owner by first class mail, or by personal service in the same manner as legal process is served under any Missouri statute or court rule. Mailed notice shall be presumed received three (3) days after it is mailed. If service is not able to be obtained by either of the above methods, service may be obtained by publishing notice of the bill of costs in a newspaper of general circulation in the city.

(d)

The property owner may contest the assessment of costs by requesting a hearing. The request for hearing must be made in writing and received by the director within seven (7) days of service of the bill of costs or publication of notice of the bill of costs. The request for hearing must be either hand-delivered to the office of the director or sent to the director by United States mail, facsimile machine or electronic mail. The request for hearing must state an address to which a notice of hearing

may be sent.

(e)

Notice of hearing. At least ten (10) days' written notice of the hearing shall be given to the property owner. Notice shall be hand-delivered to the property owner or mailed to the address provided by the property owner in the request for hearing. Notice shall be presumed received three (3) days after it is mailed.

(f)

Hearing and decision. The hearing officer shall conduct the hearing and enter a decision in accordance with the requirements of Chapter 536, RSMo. If the hearing officer determines that the abatement was justified under subsection (a), the hearing officer shall certify the cost of abatement to the city clerk for collection pursuant to the provisions of section 12A-204.

(g)

Appeal. An appeal from the decision of the hearing officer may be made to the Circuit Court of Boone County in accordance with Chapter 536, RSMo.

*(Ord. No. 18297, § 1, 11-1-04)*

#### **Sec. 12A-206. - Nuisances on more than one property.**

If any nuisance abated by the director extended over more than one (1) parcel of land, the cost of abating the nuisance shall be assessed against each parcel of land on which the nuisance was abated in proportion to the amount of work and expense for each such parcel. Except in the case of an emergency abatement, however, no parcel of land shall be assessed unless an owner of the parcel was served with an abatement notice.

*(Ord. No. 18297, § 1, 11-1-04)*

#### **Sec. 12A-207. - Nuisances attributable to neighboring property.**

If any nuisance abated by the director was caused in whole or in part by activities on neighboring property, the cost of abating the nuisance shall be assessed against each parcel of such neighboring property in proportion to the amount of damage attributable to each such parcel. Except in the case of an emergency abatement, however, no property shall be assessed unless an owner of the property was served with an abatement notice. The owner of such property shall be entitled to the same hearing and appeal rights as the owner of property on which a nuisance is alleged to exist.

*(Ord. No. 18297, § 1, 11-1-04)*

#### **Secs. 12A-208—12A-214. - Reserved.**

### **DIVISION 5. - VARIANCES**

#### **Sec. 12A-215. - Variances.**

(a)

The director may grant a variance for the following:

(1)

Projects or activities serving a public need where no feasible alternative is available.

(2)

The repair and maintenance of public improvements where avoidance and minimization of adverse impacts to wetlands and associated aquatic ecosystems have been addressed.

(b)

The applicant shall submit a written request for a variance to the director. The application shall include specific reasons justifying the variance and any other information necessary to evaluate the proposed variance request. The director may require site design, landscape planting, fencing, the placement of signs, and the establishment of water quality best management practices in order to reduce adverse impacts on water quality, streams, wetlands, and floodplains.

*(Ord. No. 18297, § 1, 11-1-04)*

#### **Secs. 12A-216—12A-230. - Reserved.**

### **ARTICLE X. - STREAM BUFFER REQUIREMENTS**

#### **Sec. 12A-231. - Purpose and findings.**

(a)

Stream buffers provide numerous benefits including:

(1)

Restoring and maintaining the chemical, physical and biological integrity of streams;

(2)

Removing pollutants delivered in urban stormwater;

(3)

- Reducing erosion and controlling sedimentation;
- (4) Stabilizing stream banks;
- (5) Providing infiltration of stormwater runoff;
- (6) Maintaining base flow of streams;
- (7) Contributing organic matter needed by the aquatic ecosystem for food and energy;
- (8) Providing tree canopy to shade streams and promote desirable aquatic organisms;
- (9) Providing riparian wildlife habitat;
- (10) Furnishing scenic value and recreational opportunity;
- (11) Protecting the public from flooding, property damage and loss; and
- (12) Providing sustainable, natural vegetation.

(b)

The purpose of this article is to protect streams in the city by establishing minimum stream buffer requirements.

(Ord. No. 19343, § 1, 1-2-07)

#### **Sec. 12A-232. - Applicability.**

(a)

This article applies to all land in the city except the following:

- (1) Land used for farming activities covered by an approved Natural Resources Conservation Services (NRCS) conservation plan that includes the application of Best Management Practices (BMPs).
- (2) Land included in a preliminary or final plat approved before January 2, 2007.
- (3) The portion of land for which a valid, unexpired building permit has been issued or for which application for a building permit is pending on January 2, 2007.
- (4) Land used for surface mining operations that is operating in compliance with a state-approved surface mining permit.

(Ord. No. 19343, § 1, 1-2-07)

#### **Sec. 12A-233. - Definitions.**

The following definitions apply to this article:

*Best Management Practices (BMPs)* means conservation practices or management measures which control soil loss and reduce water quality degradation mainly caused by nutrients, animal wastes, toxins, sediment in the runoff. BMPs may be either structural (for example, grass swales, terraces, retention and detention ponds), or non-structural (for example, disconnection of impervious surfaces, directing downspouts onto grass surfaces and educational activities).

*Buffer* means a vegetated area including trees, shrubs, managed lawn areas, and herbaceous vegetation which exists or is established to protect a stream system, lake or reservoir.

*Development* means:

- (1) The improvement of property for any purpose involving construction; or
- (2) Subdivision or the division of a tract or parcel of land into two (2) or more parcels; or
- (3) The combination of any two (2) or more lots, tracts, or parcels of property for any purpose;
- (4) The preparation of land for construction; or
- (5) Land disturbance that requires the issuance of a land disturbance permit.



*Farming activities* means disturbance of any area greater than twenty thousand (20,000) square feet for the purpose of planting, cultivating and harvesting any crop product for commercial use.

*Managed lawn areas* means any area greater than five hundred (500) square feet where the vegetative ground cover is maintained at a uniform height of less than three (3) inches.

*Non-point source pollution* means pollution which is generated by various land use activities rather than from an identifiable or discrete source, and is conveyed to waterways through natural processes such as rainfall, storm runoff or groundwater seepage and infiltration rather than through direct discharge.

*Pollution* means any contamination or alteration of the physical, chemical, or biological properties of any waters that will render the waters harmful or detrimental to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

*Streams* means perennial and intermittent watercourses identified through site inspection and United States Geological Survey (USGS) maps and further defined and categorized as follows:

(1)

*Type I Streams* are defined as perennial streams shown as solid blue lines on the United States Geological Survey seven and one-half (7.5) minutes series topographical map.

(2)

*Type II Streams* are defined as intermittent streams shown as dashed blue lines on the United States Geological Survey seven and one-half (7.5) minutes series topographical map.

(3)

*Type III Streams* are defined as waterways or natural channels which are not shown on the United States Geological Survey seven and one-half (7.5) minutes series topographical map as either blue or dashed blue lines which have drainage areas of greater than fifty (50) acres.

*Waterways* means natural or manmade lakes, natural channels, rivers, streams, and creeks which store or convey stormwater runoff.

*Wetlands* means areas that are inundated or saturated by surface or groundwater at frequency and duration sufficient to support and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

(Ord. No. 19343, § 1, 1-2-07)

#### **Sec. 12A-234. - No land disturbance in stream buffer before plan approved.**

It shall be unlawful for any person to clear, grade, disturb vegetation or build a structure on any land subject to this article that is located within one hundred (100) feet of a Type I Stream, fifty (50) feet of a Type II Stream or thirty (30) feet of a Type III Stream, as measured in section 12A-236(b), before the director has approved a stream buffer plan for the land.

(Ord. No. 19343, § 1, 1-2-07)

#### **Sec. 12A-235. - Stream buffer plan requirements.**

(a)

All development plans and plats shall include or be accompanied by a stream buffer plan that sets forth an informative, conceptual and schematic representation of the proposed stream buffers by means of maps, graphs, charts, or other written or drawn documents to enable the city to determine whether the plan or plat is in compliance with the requirements of this article.

(b)

Stream buffer plans shall contain the following information:

(1)

A site plan map at a minimum scale of one (1) inch equals two hundred (200) feet.

(2)

Field delineated and surveyed streams, springs, seeps, bodies of water, sink holes, and wetlands (include a minimum of two hundred (200) feet into adjacent properties).

(3)

Delineated stream buffers.

(4)

Limits of the ultimate one hundred-year floodplain as shown on the adopted floodplain maps for the City of Columbia.

(5)

Steep slopes greater than fifteen (15) percent for areas adjacent to and within two hundred (200) feet of streams, wetlands, or other waterbodies.

(c)

A stream buffer plan shall be submitted in conjunction with the required land disturbance plan for each development, and the buffer must be clearly delineated on the site grading plan. Each site grading and drainage plan shall include a note stating,



"There shall be no clearing, grading, construction or disturbance of vegetation except as specifically approved by the city."  
(Ord. No. 19343, § 1, 1-2-07)

**Sec. 12A-236. - Design standards for stream buffers.**

- (a) An adequate buffer for a stream system shall consist of a predominantly undisturbed strip of land extending along both sides of a stream and its adjacent wetlands, floodplains or slopes. The buffer width may be adjusted to include contiguous sensitive areas, such as steep slopes or erodible soils, where disturbance may adversely affect water quality, streams, wetlands, or other water bodies.
- (b) The buffer shall begin and be measured from the ordinary high water mark of the channel during base flows.
- (c) The required base width for all stream buffers is shown in Table I.

Table I. Required Stream Buffer Width	
Waterway Type	Required Width (each side)
Type I	100 feet
Type II	50 feet
Type III	30 feet

- (d) Stream buffer width shall be increased where there are steep slopes in close proximity to the stream that drain into the stream system as set forth in Table II.

Table II. Modifications to Stream Buffer	
Width Based on Slope	
Percent Slope	Width of Buffer
0—14%	No Change
15%—25%	add 25 feet
Greater than 25%	add 50 feet

- (e) Buffer averaging. The stream buffer width may be relaxed and the buffer permitted to become narrower at some points as long as the average width of the buffer meets the minimum requirement. This averaging of the buffer may be used to allow for the presence of an existing structure or to recover a lost lot, as long as the streamside zone (Zone I) is not narrowed by the averaging.

(Ord. No. 19343, § 1, 1-2-07)

**Sec. 12A-237. - Stream buffer function, vegetation and uses.**

- (a) The stream buffer shall be composed of two (2) distinct zones, each having its own function, allowed vegetation and permitted uses as set forth in this section and as summarized in Table III. The streamside zone will begin and be measured as set forth in section 12A-236(b) and extend away from the ordinary high water mark a distance as shown in Table III. The outer zone will begin at the outside edge of the streamside zone and extend outward, away from the streamside zone the distances shown in Table III.

Table III. Stream Buffers							
Streamside Zone				Outer Zone			
Type I Waterway	Type II Waterway	Type III Waterway		Type I Waterway	Type II Waterway	Type III Waterway	
Width	50	25	15	Width	50	25	15

Vegetation	Indigenous Vegetation			Vegetation	Type I - Indigenous Vegetation  Type II - Managed Lawns Permissible  Type III - Managed Lawns Permissible		
Uses	Flood control, footpaths, road crossings, utility corridors			Uses	Biking/hiking paths, flood control, detention/retention structures, utility corridors, stormwater BMPs, residential yards, landscaped areas		
Function	Protect the physical and ecological integrity of the stream ecosystem			Function	Protect key components of the stream and filter and slow velocity of water runoff		

(b)

The width of the streamside zone is set forth in Table III. The normal width of the outer zone is set forth in Table III but will vary if the stream buffer is increased or decreased on an approved stream buffer plan.

(c)

The function of the streamside zone is to protect the physical, biological and ecological integrity of the stream ecosystem. The function of the outer zone is to prevent encroachment into the streamside zone and to filter runoff from residential and commercial development.

(d)

Indigenous vegetation must be preserved in the streamside zone and in the outer zone of Type I Streams. Managed lawns are permitted in the outer zone of Type II and Type III Streams although landowners are encouraged to preserve or plant indigenous vegetation in order to increase the filtering capability of the buffering system.

(e)

The structures, practices and activities permitted in the streamside zone of the buffer are limited to the following:

(1)

Roads and bridges;

(2)

Utilities where no practical alternative exists;

(3)

Paths and recreation trails (but use of the outer zone is preferred);

(4)

Removal of diseased or dead trees, brush and trash;

(5)

Removal of debris which could cause flooding;

(6)

Selective (spot) spraying of noxious or other vegetation consistent with recommendations from the city arborist or the Missouri Department of Conservation;

(7)

Water quality monitoring and stream gauging;

(8)

Maintenance of city-approved bank stabilization measures;

(9)

Maintenance of all city-approved improvements, including utilities.

(f)

The following practices and activities are specifically prohibited within the streamside zone of the stream buffer, except by the city:

(1)

Clearing of existing vegetation.

(2)

Soil disturbance by grading, stripping, or other practices;

(3)

Filling or dumping;

(4)

Drainage by ditching, underdrains, or other systems;

(5)

Use, storage, or application of pesticides, except as provided for in subsection (e)(6);

(6)

- (7) Storage or operation of motorized vehicles, except for maintenance and emergency use approved by the city;
- (7) Housing, grazing, or other maintenance of livestock.

(g)

The structures, practices and activities permitted in the outer zone of the buffer are limited to the following:

- (1) All uses permitted in the streamside zone;
- (2) Flood control structures;
- (3) Detention and retention structures;
- (4) Utility corridors;
- (5) Stormwater BMPs;
- (6) Managed lawns (Type II and III Streams only); and
- (7) Landscaped areas.

(h)

There shall be no septic systems, permanent structures or impervious cover, with the exception of foot paths, roads, bridges and utilities within the outer zone.

- (i) The following activities are specifically prohibited within the outer zone of the stream buffer of Type I Streams, except by the city:
- (1) Clearing of existing vegetation;
- (2) Soil disturbance by grading, stripping, or other practices.
- (3) Filling or dumping.

(Ord. No. 19343, § 1, 1-2-07)

#### **Sec. 12A-238. - Additional land use restriction near streams.**

The following land uses and activities are potential water pollution hazards and must be set back from any stream or waterbody by the distance indicated below:

1.	Storage and use of hazardous substances	300 feet
2.	Above- or below-ground petroleum storage facilities	300 feet
3.	Drain fields from on-site sewage disposal and treatment systems	200 feet
4.	Raised septic systems	200 feet
5.	Salvage yards or automobile recyclers	600 feet
6.	Confined animal feedlot operations	500 feet
7.	Tilled land (for crops)	200 feet

(Ord. No. 19343, § 1, 1-2-07)

#### **Sec. 12A-239. - Temporary boundary markers.**

Temporary boundary markers shall be installed by the applicant before clearing and grading operations begin and shall be maintained throughout the development activities. The markers will be placed on the outside edge of the buffer zone before the start of any activity adjacent to the buffer zone. Markers shall be clearly visible and shall be spaced at a maximum of one hundred (100) feet. The markers shall be joined by marking tape or fencing.

(Ord. No. 19343, § 1, 1-2-07)

#### **Sec. 12A-240. - Nuisances.**

(a)

Any condition prohibited by this article is a nuisance.

(b)

The abatement procedures and other provisions of Article IX, Division 4 of this chapter apply to this article.

*(Ord. No. 19343, § 1, 1-2-07)*

**Sec. 12A-241. - Variances by the director.**

(a)

The director may grant a variance or waiver for the following:

(1)

Projects or activities serving a public need where no feasible alternative is available;

(2)

The repair and maintenance of public improvements where avoidance and minimization of adverse impacts to wetlands and associated aquatic ecosystems have been addressed.

(b)

The applicant shall submit a written request for a variance or waiver to the director. The application shall include specific reasons justifying the variance and any other information necessary to evaluate the proposed variance. The director may require an alternatives analysis that clearly demonstrates that no other feasible alternatives exist and that minimal impact will occur as a result of the project or development.

(c)

In granting a request for a variance, the director may require site design, landscape planting, fencing, the placement of signs, and the establishment of water quality best management practices in order to reduce adverse impacts on water quality, streams, wetlands, and floodplains.

*(Ord. No. 19343, § 1, 1-2-07)*

**Sec. 12A-242. - Conflict with other regulations.**

Where the standards and management requirements of this article are in conflict with other laws, regulations, and policies regarding streams, steep slopes, erodible soils, wetlands, floodplains, timber harvesting, land disturbance activities, or other environmental protective measures, the more restrictive requirement shall apply.

*(Ord. No. 19343, § 1, 1-2-07)*