City of Dunwoody Georgia

4800 Ashford Dunwoody Road
Dunwoody, Georgia 30338
dunwoodyga.gov | 678.382.6700

September 18, 2020

TO: Richard McLeod, Community Development Dept. Director
FM: Jeff Mueller, City Engineer
RE: Mayor and City Council Agenda Item, Changes to Chapter 16 of the City Code

Richard,

Following is the background information and proposed changes to the Flood Damage Prevention related sections of the city code:

BACKGROUND

In 2019, the city was notified that FEMA was intent on conducting a "Community Assistance Visit" (CAV). FEMA staff met with city staff the week of August 26, 2020. At this CAV, FEMA staff reviewed the city's ordinance and conducting an audit of the Community Development Department's permitting and inspection processes as they relate to flood damage prevention.

After this meeting, the city came into receipt of a letter from FEMA dated December 17, 2019. In this letter FEMA outlined required changes to the city's code as it relates to flood damage prevention.

The city submitted a response letter to FEMA on the matter dated January 31, 2020. Since that time, city staff has been in correspondence and coordination with FEMA staff to verify that the changes to the code as presented in this agenda item will address the requests of FEMA's December 17, 2019 letter as it relates to code changes.

PROPOSED changes:

1. Add a new subsection, subsection (3), under Section 16-136 (a) to state:

   (3) Article IX, Section II of the Constitution of the State of Georgia and Section 36-1-20(a) of the Official Code of Georgia Annotated have delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City establishes this set of floodplain management and flood hazard reduction provisions for the purpose of regulating the use of flood hazard areas. It is determined that the regulation of flood hazard areas and the prevention of flood damages is in the public interest and will minimize threats to public health and safety, as well as to private and public property.

2. Modify Section 16-136 (d) as follows:

   (d) *Applicability.* The flood damage prevention regulations of this division apply to ~~all areas~~ Special Flood Hazard Areas and other floodplains regulated by ~~within~~ the City of Dunwoody.

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3. Modify Section 16-138 (a) (2) a.2 as follows:

   2. *All necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.* ~~All other required state and federal permits have been obtained~~; and

4. Modify Section 16-138 (b) (1) e and add a new subsection f, under Section 16-138 (b) (1) to state:

   e. ~~Copies of all applicable state and federal permits necessary for proposed development;~~ *Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334";*

   f. *Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards;* and

5. Modify Section 16-138 (b) (1) f to be renumbered as Section 16-138 (b) (1) g.
6. Modify Section 16-301 (e) by modifying definition of 'elevated building' as follows:
   means a non-basement building built to have the lowest floor of the lowest enclosed area elevated above ground level by means of ~~fill,~~ solid foundation perimeter walls, pilings, columns, piers or shear walls that are adequately anchored so as not to impair the structural integrity of the building during a base flood event.
7. Modify Section 16-301 (f) by modifying definition of 'floodplain' as follows:
   means any land area susceptible to ~~flooding~~ *being inundated by water from any source (see definition of 'flooding).'*
8. Modify Section 16-301 (f) by moving the definition of 'floor' from Section 16-301 (f) to Section 27-621 (f).
9. Modify Section 16-301 (l) by modifying definition of 'lowest floor' as follows:
   means the lowest floor of the lowest enclosed area, including basement. ~~An unfinished or flood-resistant enclosure below the lowest floor that is usable solely for parking or vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of other provisions of these land development regulations.~~ *An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non- elevation design requirements of 44 Code of Federal Regulations Section 60.3".*
10. Modify Section 16-301 (m) by modifying definition of 'manufactured home' as follows:

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means a structure, transportable in one or more sections, built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term includes any structure commonly referred to as a "mobile home" regardless of the date of manufacture. The term also includes parked trailers, travel trailers and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property. *The term 'manufactured home' does not include a 'recreational vehicle.'*

11. Modify Section 16-301 (n) by modifying definition of 'new construction' as follows:
    means ~~any structure for which the permitted date of construction commenced after adoption of this chapter, October 14, 2009.~~ *, for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map (May 15, 1980) or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures.* For the purposes of interpreting and administering the flood damage prevention regulations of article II, division 8, "new construction" means structures for which the start of construction commenced on or after the effective date of floodplain management regulations adopted by this community ~~as a basis for community participation in the NFIP.~~ *and includes any subsequent improvements to such structures".*
12. Modify Section 16-301 (p) by modifying definition of 'permit' as follows:
    means the authorization necessary to conduct a land-disturbing activity *and development* under the provisions of this chapter.
13. Modify Section 16-301 (r) by adding a definition for 'regulatory floodway' as follows:
    means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.
14. Modify Section 16-301 (v) by adding a definition for 'variance' as follows:
    means, for the purposes of interpreting and administering the flood damage prevention regulations of article II, division 8, a grant of relief by a community from the terms of a flood plain management regulation.
15. Modify Section 16-301 (v) by adding a definition for 'violation' as follows:
    means, for the purposes of interpreting and administering the flood damage prevention regulations of article II, division 8, the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in § 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided".

U.S. Department of Homeland Security
Region IV
3003 Chamblee-Tucker Road
Atlanta, GA 30341

FEMA

December 17, 2019

The Honorable Dennis Shortal
Mayor, City of Dunwoody
4800 Ashford Dunwoody Road
Dunwoody, Georgia 30338

RE: National Flood Insurance Program (NFIP) - Community Assistance Visit (CAV)

Dear Mayor Shortal:

This letter is in follow-up to the U.S. Department of Homeland Security, Federal Emergency Management Agency's NFIP/CAV with the City of Dunwoody, August 26-28, 2019. Ms. Mary Rountree met with you, Mr. Eric Linton, Mr. Jeff Mueller, Mr. Rich Edinger, Mr. Mark Baumhart, and Mr. Richard McLeod.

The purpose of this CAV was to evaluate the effectiveness of the City's floodplain management program, as required for participation in the NFIP and to provide technical assistance on the City's administration of it flood damage prevention ordinance. The following outlines the findings of the visit and actions needed:

1. Administration of the City's flood damage prevention ordinance (Ordinance Number 2014-11-11)

FEMA requires community flood ordinances to contain minimum standards for participation in the NFIP including provisions for 44 Code of Federal Regulations at Sections 59.1 and 60.3. The City ordinance omits or incorrectly states some of those provisions and we have listed those below that must be revised.

The City ordinance appears to be generally based upon the Metropolitan North Georgia Water Planning District Floodplain Management and Flood Damage Prevention Model Ordinance (www.northgeorgiawater.org) and contains some higher regulatory standards found in that model ordinance. If a NFIP Community has adopted an ordinance containing higher regulatory standards than those required for participants in the NFIP, FEMA expects such communities to enforce those standards. However, the City ordinance does not contain all provisions in that model. Because the model ordinance is a State requirement, we recommend the City coordinate with the State to ensure those required provisions are included and rightly stated.

We identified the following provisions that must be revised as minimum requirements for participation in the NFIP:

- Include the State of Georgia enabling legislation, Article IX, Section II of the State Constitution and Section 36-1-20(a) of the Official Code of Georgia Annotated.
- Revise Section 26-136(d) to read, "This ordinance shall be applicable to Special Flood Hazard Areas and other floodplains regulated by the City".
- Include a Severability clause, an example of which is found in the model ordinance at Section 1.6.
- Revise definition for "building" to "see structure".
- Revise definition for "elevated building" by removing the word, "fill".
- Revise definition for "floodplain" to "means any land area susceptible to being inundated by water from any source (see definition of 'flooding')".
- Revise definition for floodway to "see regulatory floodway".
- Include definition for "regulatory floodway" to "means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height".
- Omit definition for "floor" and revise definition for "lowest floor" to "means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 44 Code of Federal Regulations Section 60.3".
- Revise definition for "new construction" to "means, for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map (May 15, 1980) or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, *new construction* means structures for which the *start of construction* commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures".
- Revise definition for "permit" to apply to development.
- Include definition for "variance" to "means a grant of relief by a community from the terms of a flood plain management regulation".
- Include definition for "violation", "the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in § 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided".
- Include definition of "manufactured home", "means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term 'manufactured home' does not include a 'recreational vehicle''.
- Add definition of "manufactured home park or subdivision", means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale".

- Include provision for 44 Code of Federal Regulations, Section 60.3(a)(2), "Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334".
- Include provision for 44 Code of Federal Regulations, Section 60.3(c)(6), "Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites **(i)** Outside of a manufactured home park or subdivision, **(ii)** In a new manufactured home park or subdivision, **(iii)** In an expansion to an existing manufactured home park or subdivision, or **(iv)** In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist floatation collapse and lateral movement".
- Include provision for 44 Code of Federal Regulations, Section 60.3(d)(3), "Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge".
- Include provision for 44 Code of Federal Regulations, Section 60.3(c)(10), "Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community".
- Include provision for 44 Code of Federal Regulations, Section 60.3 (a)(4), "Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards".

2. Regulation of unpermitted development

Provide a Standard Operating Procedure for routinely monitoring any non-permitted substantial improvements and other development that might occur in the City's floodplains, including in FEMA's regulatory floodways, and provide a narrative description of such process. The City is responsible for all development in floodplains that it regulates.

3. Revisions to FEMA's Flood Insurance Rate Maps

Provide assurance that the City will follow provisions in its ordinance for Section 16-136 (c)(4), "control filling, grading, dredging, and other development which may increase flood damage" and Section 16-139 (c) f. regarding the requirement to submit a Conditional Letter of Map Revision to FEMA prior to revising FEMA's base flood elevation.

4. Development permits and elevation data of new construction and substantial improvements

Provide permitting records (to include permit application, development permit/placard, finished construction elevation certificates, Letter of Map Changes, and floodproofing certificates, if applicable, and any substantial damage or substantial improvement determinations/calculations, or other evidence of compliance, for the following development:

1. 1314 Valley View Drive 2017-0095,2016-12659
2. 54 Perimeter Center East, provide Letter of Map Revision 2017-043
3. 2030 Pernoshal Center East 2017-027
4. Heritage at Dunwoody 2014-9956
5. 114 Valley View Drive 1308? 2018-1303,2019-0710... 1394? 2017-0920
6. 4426 Tily Mill, fill and debris in floodway on both sides of Nancy Creek for about 50 yards (concrete, rebar, debris, no permit -code enforcement action
7. Dunwoody Village Apartment, dumpster not anchored 4415 N P'tree Rd, aka Dunwoody Crossing...
8. 4363 Vintage Lane, possible substantial improvement no permits post dunwoody, code enforcement action
9. 4364 Vintage Lane no permits post dunwoody
10. 400 Ashford Dunwoody Road aka 400 perimeter ctr ter, 2019-0514,
11. 700 Ashford Dunwoody Road aka 700 ashwood pkwy, aka 500 ashwood pkwy, 2019-1323,1322,1133
12. 1993 Peeler Road no permits post dunwoody

Please provide the information requested in this letter by January 30, 2020. Should you have any questions regarding the follow-up items requested for the CAV, please call Ms. Rountree at 770-220-5366 or email her at mary.rountree@fema.dhs.gov.

Sincerely,

Timothy P. Russo

Jason O. Hunter, CFM, Chief
Floodplain Management & Insurance Branch
Mitigation Division

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U.S. Department of Homeland Security, Region IV
3003 Chamblee-Tucker Road
Atlanta, GA 30341
Attn: Mr. Jason O. Hunter, CFM, Chief, Floodplain Management & Insurance Branch, Mitigation Division

Re: National Flood Insurance Program (NFIP) -Community Assistance Visit (CAV), Response

Dear Mr. Hunter,

This letter is sent in response to your December 17, 2019 letter. In that letter, the city was requested to provide information to four outlined matters:

1. ***Administration of the City's flood damage prevention ordinance (Ordinance Number 2014-11-11). FEMA identified the following provisions in the city ordinance that must be revised as minimum requirements for participation in the NFIP. The table presented below outlines the provisions and the city's response:***

FEMA Provision:	City Response:
Include the State of Georgia enabling legislation, Article IX, Section II of the State Constitution and Section 36-1-20(a) of the Official Code of Georgia Annotated.	*It is the city's position that these sections are referenced in Chapter 2, "Administration," of the city code as footnote references -see attachments appendix.*
Revise Section 26-136(d) to read, "This ordinance shall be applicable to Special Flood Hazard Areas and other floodplains regulated by the City".	*Section 16-136(d) will be readopted by the Mayor and City Council as requested*
Include a Severability clause, an example of which is found in the model ordinance at Section 1.6.	*Please see Section 16-6, which covers the entire chapter, of which division 8, the flood damage prevention ordinance is a part.*
Revise definition for "building" to "see structure".	*Done, per Sec 16-301*
Revise definition for "elevated building" by removing the word, "fill".	*This will be readopted by the Mayor and City Council as requested*
Revise definition for "floodplain" to "means any land area susceptible to being inundated by water from any source (see definition of 'flooding')".	*This will be readopted by the Mayor and City Council as requested*
Revise definition for "floodplain" to "means any land area susceptible to being inundated by water from any source (see definition of 'flooding')".	*This will be readopted by the Mayor and City Council as requested*
Include definition for "regulatory floodway" to "means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively	*This will be readopted by the Mayor and City Council as requested*

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increasing the water surface elevation more than a designated height".	
Omit definition for "floor" and revise definition for "lowest floor" to "means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non- elevation design requirements of 44 Code of Federal Regulations Section 60.3".	*This will be readopted by the Mayor and City Council as requested*
Revise definition for "new construction" to "means, for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map (May 15, 1980) or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, *new construction* means structures for which the *start of construction* commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures".	*This will be readopted by the Mayor and City Council as requested*
Revise definition for "permit" to apply to development.	*In order to be readopted, an actual edit of the code text by FEMA will be required to clarify the request.*
Include definition for "variance" to "means a grant of relief by a community from the terms of a flood plain management regulation".	*This will be readopted by the Mayor and City Council as requested*
Include definition for "violation", "the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in § 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided".	*This will be readopted by the Mayor and City Council as requested*
Include definition of "manufactured home", "means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term 'manufactured home' does not include a 'recreational vehicle".	*Done, per Sec 16-301*
Add definition of"manufactured home park or subdivision", means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale".	*Done, per Sec 16-301*

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Include provision for 44 Code of Federal Regulations, Section 60.3(a)(2), "Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334".	*This will be readopted by the Mayor and City Council as requested*
Include provision for 44 Code of Federal Regulations, Section 60.3(c)(6), "Require that manufactured homes that are placed or substantially improved within Zones Al-30, AH, and AE on the community's FIRM on sites (i) Outside of a manufactured home park or subdivision, (ii) In a new manufactured home park or subdivision, **(iii)** In an expansion to an existing manufactured home park or subdivision, or (iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist floatation collapse and lateral movement".	*Done, per Sec 16-140-b-5*
Include provision for 44 Code of Federal Regulations, Section 60.3(d)(3), "Prohibit encroachments, including fi11, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge".	*This provision is reflected in Sec 16-139-e-1 and Sec 16-139-c-1*
Include provision for 44 Code of Federal Regulations, Section 60.3(c)(10), "Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fi11) shall be permitted within Zones Al-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community". Include provision for 44 Code of Federal Regulations, Section 60.3 (a)(4), "Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities,	*The city would need assistance from FEMA for the language on this provision, as the state model ordinance did not require this provision. The 0.01 foot rise is more restrictive.*

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such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards".	
Include provision for 44 Code of Federal Regulations, Section 60.3 (a)(4), "Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards".	*It is the city's position that this provision is reflected in Sec 16-139-c-2-e for ii, i and iii are implied in other segments of the city code, particularly Division 5 and Division 8 of this Article*

As specifically requested in the December 17, 2019 letter, the city will agree to modify its code for those items listed in the above table. The process involves the approval of the Mayor and City Council of Dunwoody.

The city would like to note that as recently as 2018, it modified its flood hazard ordinance at the request of the state of Georgia's Department of Natural Resources. DNR had sent a letter to each local government of the Metro North Georgia Water Planning District (MNGWPD), requesting changes to flood hazard ordinances to bring them in line with the MNGWPD's model ordinance. As a result of this effort, each local community had the same elements in its flood hazard regulations. The finding of inadequacies during this subsequent oversight, or assistance, review by FEMA of this just recently changed local ordinance implies fundamental inadequacies in the MNGWPD model ordinance, and the likelihood that every local government in the MNGWPD not subject to a CAV has these inadequacies as well. The city would like to urge that FEMA coordinate with the Georgia DNR representatives of the MNGWPD ordinance update effort to determine the efficacy of the model ordinance prior to the city going through another round of ordinance changes with our local elected officials so soon after a series of significant changes in 2018. If it is indeed determined between FEMA and GA DNR that the model ordinance is indeed inadequate that every local government modified in 2018, then each local government can reap the benefit of this CAV by having their model ordinances meet not only GA DNR muster, but FEMA's as well.

In addition, if there is a need for further clarification on the text of the proposed city code, the city would like to request that FEMA staff edit the actual flood ordinance to minimize the amount of iteration which may be necessary through this line of communication. The city will include the existing code in the attachments appendix to this letter. (GA DNR did this for the city's ordinance during the model ordinance revision process of 2018.)

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2. ***Provide a Standard Operating Procedure for routinely monitoring any non-permitted substantial improvements and other development that might occur in the City's floodplains, including in FEMA's regulatory floodways, and provide a narrative description of such process.***

Code Enforcement conducts routine patrols on a biweekly basis covering all addresses of the city. Unauthorized and unpermitted land disturbance is a patrol element. The enforcement of unpermitted land disturbance is in accord with Section 16-62 of the city code.

3. ***Provide assurance that the City will follow provisions in its ordinance for Section 16- 136 (c)(4), "control filling, grading, dredging, and other development which may increase flood damage" and Section 16-139 (c) f. regarding the requirement to submit a Conditional Letter of Map Revision to FEMA prior to revising FEMA's base flood elevation.***

This assurance is provided in accord with Section 2-59-a-3, which enables the Community Development Department and the enforcement of Section 16 of the city code, "Land Development Regulations."

4. ***Provide permitting records (to include permit application, development permit/placard, finished construction elevation certificates, Letter of Map Changes, and floodproofing certificates, if applicable, and any substantial damage or substantial improvement determinations/calculations, or other evidence of compliance, for the following development***:

	Address	City Response
1	1314 Valley View Drive	Permits 2017-0095,2016-12659, documents will be included in the attachments appendix
2	54 Perimeter Center East, provide Letter of Map Revision	Permit 2015-11128, 2017-043, LMOR in process, documents will be included in the attachments appendix
3	2030 Pernoshal Center East	Permit 2017-027, documents will be included in the attachments appendix
4	Heritage at Dunwoody	Permit 2014-9956, documents will be included in the attachments appendix
5	114 Valley View Drive	Assumed address in question is 1308 Valley View Drive, Permits 2018-1303,2019-0514, documents will be included in the attachments appendix
6	4426 Tilly Mill, fill and debris in floodway on both sides of Nancy Creek for about 50 yards (concrete, rebar, debris)	No permit is associated with this address and recent construction activity. The property line is Nancy Creek, and the other side of the creek is the City of Doraville. A code enforcement matter will be opened to pursue enforcement of this unauthorized activity
7	Dunwoody Village Apartment, dumpster not anchored	4415 North Peachtree Road, aka Dunwoody Crossing. A code enforcement matter will be opened to pursue enforcement of this non compliant condition
8	4363 Vintage Lane, possible substantial improvement	No permits have been issued subsequent to city incorporation. Documents will be pursued through Dekalb County. A code

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		enforcement matter will be opened to pursue enforcement of this unauthorized activity
9	4364 Vintage Lane	No permits have been issued subsequent to city incorporation. Documents will be pursued through Dekalb County
10	400 Ashford Dunwoody Road	Aka 400 Perimeter Center Terrace, permit 2019-0514, 2018-053 (variance), documents will be included in the attachments appendix
11	700 Ashford Dunwoody Road	Aka 700 Ashwood Parkway, aka 500 Ashwood Parkway, permits 2019-1322,2019-1133, documents will be included in the attachments appendix
12	1993 Peeler Road	No permits have been issued subsequent to city incorporation. Documents will be pursued through Dekalb County. Investigation will be required to determine if a code enforcement action will be necessary.

Please let us know if you have any questions or comments.

Sincerely,

CITY OF DUNWOODY Community Development Department
Richard J. Edinger, P.E., City Engineer

c: Richard McLeod, Community Development Director

ATTACHMENTS APPENDIX

Chapter 2 Title and Footnote References
Flood Hazard Ordinance document for mark up by FEMA
Section 2-59-a-3
Relevant permitting documents (on accompanying thumb drive electronically)

Model Ordinance and Adoption Guidance Document

Overview: Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment

This document provides the 2019 Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment (Model Ordinance) and supplementary materials to support adoption by local jurisdictions. This material can be found in the appendices and includes mandatory edits, local enhancements, and changes from the 2002 model ordinance.

The Georgia Environmental Protection Division (EPD) requires local jurisdictions with Municipal Separate Storm Sewer System (MS4) permits to adopt ordinances, or update existing ordinances when necessary, for compliance with their MS4 permit, in order to address development and redevelopment, and enforce post-construction controls. Recent updates to the MS4 permit now require the stormwater management system to be designed to retain the first 1.0 inch of rainfall on the site, to the maximum extent practicable, and has prompted an update to existing ordinances.

The Model Ordinance was drafted for use by local jurisdictions in the Metropolitan North Georgia Water Planning District (District) and was adopted by the District Board on December 4, 2019. The Model Ordinance was developed to match the substance and language of the current MS4 permit and the Georgia Stormwater Management Manual (GSMM). The Model Ordinance is provided in *Appendix A.*

Jurisdictions within the District also have requirements to adopt ordinances that "provide for effective storm-water management [and]... shall also include minimum design and development standards for local development as it may affect stormwater runoff quality and stormwater conveyance" as outlined in the District's enabling legislation. In the District Water Resource Management Plan (Plan), action items are identified for integrated water resource planning and management. These action items are implemented by local jurisdictions, and implementation is periodically audited by the EPD. Within the Plan, the Watershed-1 action item states, "… that each local government shall adopt the Model Ordinance or an equivalent ordinance at least as effective based on the guidance in the latest GSMM and MS4 permit as applicable."

The Model Ordinance was developed to be readily usable by most local jurisdictions, but mandatory edits, which are set forth in *Appendix B*, are necessary as part of the local adoption process. Based on local conditions and policy goals, local jurisdictions should also consider making enhancements, which are also set forth in *Appendix C*. Most of the enhancements are optional, with the exception of Enhancement 3: Trout Streams, which is required for local jurisdictions that have designated trout streams as defined by Georgia Water Use Classifications and Water Quality Standards [Rule 391-3-6-.03 (15)].

Local jurisdictions may want to consider procedural changes to match local permitting and enforcement processes and preferences. Some local jurisdictions may also desire to make further substantive changes to the Model Ordinance, or otherwise customize their ordinance for post-construction stormwater management. These further changes and customizations are allowable so long as their substance meets the requirements of a local jurisdiction's MS4 permit and they are "at least as effective" as the Model Ordinance. However, given that the Model Ordinance was developed to meet

the MS4 permit requirements and establish an effective baseline for the District, care should be used in making further substantive changes and customizations. EPD is responsible for determining MS4 permit and District Plan compliance, which includes determining whether changes and customizations are "at least as effective."

Mandatory Edits

When preparing the model ordinance for local adoption, the local jurisdiction must make some edits. It is strongly recommended to use the Model Ordinance as the starting point for local customization to take full advantage of improvements in the document related clarity for implementation and use of terms. Mandatory edits are highlighted within the Model Ordinance by mandatory edit prompts shown as bold text with brackets (e.g. **[local jurisdiction]**). If your jurisdiction uses equivalent manuals or standards, please note that there are no prompts for edits to this language. For example, if you use an equivalent manual to the GSMM, then you should use find/replace to include the name of your jurisdiction's manual. A summary of the mandatory edits, locations within the Model Ordinance, and additional comments can be found in *Appendix B.*

Enhancements

Enhancements are being offered to facilitate customization of the Model Ordinance by local governments to match local policy goals and environment. As stated earlier, most of the enhancements are optional with the exception of Trout Streams, which is required for communities that have designated trout streams as defined by Georgia Water Use Classifications and Water Quality Standards [Rule 391-3-6-.03 (15)].

Appendix C contains the following Model Ordinance enhancements:

1. Construction Sequencing
2. Pre-Development Hydrology
3. Trout Streams

Each enhancement will include:

- A purpose statement;
- Specific language that could be added to the Model Ordinance; and
- Edits showing how to modify the Model Ordinance to include the enhancement.

Model Ordinance Supplemental Materials

The District has prepared supplemental materials to support the adoption of the Model Ordinance and outline the differences between the 2002 Model Ordinance and the 2019 Model Ordinance. The Model Ordinance Crosswalk provides an overview of the relationship between the 2002 and 2019 model ordinances. It can be found in *Appendix D*. The Model Ordinance Redline identifies the specific, extensive edits made to the 2002 Model Ordinance during the update. This document can be found in *Appendix E*.

Appendices

Appendix A: 2019 Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment

Appendix B: Mandatory Edits

Appendix C: Enhancements

Appendix D: Model Ordinance Crosswalk

Appendix E: Model Ordinance Redline

Appendix A:

2019 Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment

Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment

Article [X]. Post-Construction Stormwater Management for New Development and Redevelopment.

Section [Y]-1. Purpose and Intent. The purpose of this article is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-construction stormwater runoff and nonpoint source pollution associated with new development and redevelopment. Proper management of post- construction stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, environment and general welfare of the public, and protect water and aquatic resources. Additionally, the **[local jurisdiction]** is required to comply with several State and Federal laws, regulations and permits and the requirements of the Metropolitan North Georgia Water Planning District's regional water plan related to managing the water quantity, velocity, and quality of post- construction stormwater runoff.

Section [Y]-2. Definitions. For this Article, the terms below shall have the following meanings:

"administrator" means the person appointed to administer and implement this Article on Post-Construction Stormwater Management for New Development and Redevelopment in accordance with Section [Y]-4.

"applicant" means a person submitting a land development application for approval.

"BMP" or "best management practice" means both structural devices to store or treat stormwater runoff and non-structural programs or practices which are designed to prevent or reduce the pollution of the waters of the State of Georgia.

"BMP landscaping plan" means a design for vegetation and landscaping that is critical to the performance and function of the BMP including how the BMP will be stabilized and established with vegetation. It shall include a layout of plants and plant names (local and scientific).

"channel" means a natural or artificial watercourse with a definite bed and banks that conveys continuously or periodically flowing water.

"detention" means the temporary storage of stormwater runoff in a stormwater detention facility for the purpose of controlling the peak discharge.

"detention facility" means a structure designed for the storage and gradual release of stormwater runoff at controlled rates.

"development" means new development or redevelopment.

"extended detention" means the storage of stormwater runoff for an extended period of time.

"extreme flood protection" means measures taken to prevent adverse impacts from large low-frequency storm events with a return frequency of 100 years or more.

"flooding" means a volume of surface water that exceeds the banks or walls of a BMP, or channel; and overflows onto adjacent lands.

"GSMM" means the latest edition of the Georgia Stormwater Management Manual, Volume 2: Technical Handbook, and its Appendices.

"hotspot" means a land use or activity on a site that has the potential to produce higher than normally found levels of pollutants in stormwater runoff. As defined by the administrator, hotspot land use may include gasoline stations, vehicle service and maintenance areas, industrial facilities (both permitted under the Industrial Stormwater General Permit and others), material storage sites, garbage transfer facilities, and commercial parking lots with high-intensity use.

"impervious surface" means a surface composed of any material that significantly impedes or prevents the natural infiltration of water into the soil.

"Industrial Stormwater General Permit" means the National Pollutant Discharge Elimination System (NPDES) permit issued by Georgia Environmental Protection Division to an industry for stormwater discharges associated with industrial activity. The permit regulates pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies based on Standard Industrial Classification (SIC) Code.

"infiltration" means the process of percolating stormwater runoff into the subsoil.

"inspection and maintenance agreement" means a written agreement providing for the long-term inspection, operation, and maintenance of the stormwater management system and its components on a site.

"land development application" means the application for a land development permit on a form provided by **[local jurisdiction]** along with the supporting documentation required in Section [Y]-10(a).

"land development permit" means the authorization necessary to begin construction-related, land-disturbing activity

"land disturbing activity" means any activity which may result in soil erosion from water or wind and the movement of sediments into state water or onto lands within the state, including but not limited to clearing, dredging, grading, excavating, and filling of land. Land disturbing activity does not include agricultural practices as described O.C.G.A. 12-7-17(5) or silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities.

"linear feasibility program" means a feasibility program developed by **[local jurisdiction]** and submitted to the Georgia Environmental Protection Division, which sets reasonable criteria for determining when implementation of stormwater management standards for linear transportation projects being constructed by **[local jurisdiction]** is infeasible.

"linear transportation projects" means construction projects on traveled ways including but not limited to roads, sidewalks, multi-use paths and trails, and airport runways and taxiways.

"MS4 Permit" means the NPDES permit issued by Georgia Environmental Protection Division for discharges from the **[local jurisdiction's]** municipal separate storm sewer system.

"new development" means land disturbing activities, structural development (construction, installation or expansion of a building or other structure), and/or creation of impervious surfaces on a previously undeveloped site.

"nonpoint source pollution" means a form of water pollution that does not originate from a discrete point such as a wastewater treatment facility or industrial discharge, but involves the transport of pollutants such as sediment, fertilizers, pesticides, heavy metals, oil, grease, bacteria, organic materials and other contaminants from land to surface water or groundwater via mechanisms such as precipitation, stormwater runoff, and leaching. Nonpoint source pollution is a by-product of land use practices such as agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources.

"overbank flood protection" means measures taken to prevent an increase in the frequency and magnitude of out-of-bank flooding (i.e. flow events that exceed the capacity of the channel and enter the floodplain).

"owner" means the legal or beneficial owner of a site, including but not limited to, a mortgagee or vendee in possession, receiver, executor, trustee, lessee or other person, firm or corporation in control of the site.

"person" means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, city, county or other political subdivision of the State, any interstate body or any other legal entity.

"post-construction stormwater management" means stormwater best management practices that are used on a permanent basis to control and treat runoff once construction has been completed in accordance with a stormwater management plan.

"post-development" means the conditions anticipated to exist on site immediately after completion of the proposed development.

"practicability policy" means the latest edition of the Metropolitan North Georgia Water Planning District's Policy on Practicability Analysis for Runoff Reduction.

"pre-development" means the conditions that exist on a site immediately before the implementation of the proposed development. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time before the first item being approved or permitted shall establish pre-development conditions.

"pre-development hydrology" means (a) for new development, the runoff curve number determined using natural conditions hydrologic analysis based on the natural, undisturbed condition of the site immediately before implementation of the proposed development; and (b) for redevelopment, the existing conditions hydrograph may take into account the existing development when defining the runoff curve number and calculating existing runoff, unless the existing development causes a negative impact on downstream property.

"previously developed site" means a site that has been altered by paving, construction, and/or land disturbing activity.

"redevelopment" means structural development (construction, installation, or expansion of a building or other structure), creation or addition of impervious surfaces, replacement of impervious surfaces not as part of routine maintenance, and land disturbing activities associated with structural or impervious development on a previously developed site. Redevelopment does not include such activities as exterior remodeling.

"routine maintenance" means activities to keep an impervious surface as near as possible to its constructed condition. This includes ordinary maintenance activities, resurfacing paved areas, and exterior building changes or improvements which do not materially increase or concentrate stormwater runoff, or cause additional nonpoint source pollution.

"runoff" means stormwater runoff.

"site" means an area of land where development is planned, which may include all or portions of one or more parcels of land. For subdivisions and other common plans of development, the site includes all areas of land covered under an applicable land development permit.

"stormwater concept plan" means an initial plan for post-construction stormwater management at the site that provides the groundwork for the stormwater management plan including the natural resources inventory, site layout concept, initial runoff characterization, and first round stormwater management system design.

"stormwater management plan" means a plan for post-construction stormwater management at the site that meets the requirements of Section [Y]-8(d) and is included as part of the land development application.

"stormwater management standards" means those standards set forth in Section [Y]-7.

"stormwater management system" means the entire set of non-structural site design features and structural BMPs for collection, conveyance, storage, infiltration, treatment, and

disposal of stormwater runoff in a manner designed to prevent increased flood damage, streambank channel erosion, habitat degradation and water quality degradation, and to enhance and promote the public health, safety and general welfare.

"stormwater runoff" means flow on the surface of the ground, resulting from precipitation.

"subdivision" means the division of a tract or parcel of land resulting in one or more new lots or building sites for the purpose, whether immediately or in the future, of sale, other transfer of ownership or land development, and includes divisions of land resulting from or made in connection with the layout or development of a new street or roadway or a change in an existing street or roadway.

Other terms used but not defined in this Article shall be interpreted based on how such terms are defined and used in the GSMM and the **[local jurisdiction's]** MS4 permit.

Section [Y]-3. Adoption and Implementation of the GSMM; Conflicts and Inconsistencies.

(a) In implementing this Article, the **[local jurisdiction]** shall use and require compliance with all relevant design standards, calculations, formulas, methods, and other guidance from the GSMM as well as all related appendices.

(b) This Article is not intended to modify or repeal any other Article, ordinance, rule, regulation or other provision of law, including but not limited to any applicable stream buffers under state and local laws, and the Georgia Safe Dams Act and Rules for Dam Safety. In the event of any conflict or inconsistency between any provision in the **[local jurisdiction's]** MS4 permit and this Article, the provision from the MS4 permit shall control. In the event of any conflict or inconsistency between any provision of this Article and the GSMM, the provision from this Article shall control. In the event of any other conflict or inconsistency between any provision of this Article and any other ordinance, rule, regulation or other provision of law, the provision that is more restrictive or imposes higher protective standards for human health or the environment shall control.

(c) If any provision of this Article is invalidated by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of this Article.

Section [Y]-4. Designation of Administrator. The **[INSERT AS APPROPRIATE - county administrator / county chief executive officer / mayor / city manager]** may from time to time appoint someone to administer and implement this Article.

Section [Y]-5. Applicability Criteria for Stormwater Management Standards. This Article applies to the following activities:

(a) New development that creates or adds 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre of land or greater;

(b) Redevelopment (excluding routine maintenance and exterior remodeling) that creates, adds, or replaces 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre or more;

(c) New development and redevelopment if

(i) such new development or redevelopment is part of a subdivision or other common plan of development, and

(ii) the sum of all associated impervious surface area or land disturbing activities that are being developed as part of such subdivision or other common plan of development meets or exceeds the threshold in (a) and (b) above;

(d) Any commercial or industrial new development or redevelopment, regardless of size, that is a hotspot land use as defined in this Article; and

(e) Linear transportation projects that exceed the threshold in (a) or (b) above.

Section [Y]-6. Exemptions from Stormwater Management Standards. This Article does not apply to the following activities:

(a) Land disturbing activity conducted by local, state, authority, or federal agencies, solely to respond to an emergency need to protect life, limb, or property or conduct emergency repairs;

(b) Land disturbing activity that consists solely of cutting a trench for utility work and related pavement replacement;

(c) Land disturbing activity conducted by local, state, authority, or federal agencies, whose sole purpose is to implement stormwater management or environmental restoration;

(d) Repairs to any stormwater management system deemed necessary by the administrator;

(e) Agricultural practices as described O.C.G.A. 12-7-17(5) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in [Y]-5 (a) or (b);

(f) Silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in [Y]-5 (a) or (b);

(g) Installations or modifications to existing structures solely to implement Americans with Disabilities Act (ADA) requirements, including but not limited to elevator shafts, handicapped access ramps and parking, and enlarged entrances or exits; and

(h) Linear transportation projects being constructed by **[local jurisdiction]** to the extent the administrator determines that the stormwater management standards may be infeasible to apply, all or in part, for any portion of the linear transportation project. For this exemption to apply, an infeasibility report that is compliant with the **[local jurisdiction]** linear feasibility program shall first be submitted to the administrator that contains adequate documentation to support the evaluation for the applicable portion(s) and any resulting infeasibility determination, if any, by the administrator.

Section [Y]-7. Stormwater Management Standards. Subject to the applicability criteria in Section [Y]-5 and exemptions in Section [Y]-6, the following stormwater management standards apply. Additional details for each standard can be found in the GSMM Section 2.2.2.2:

(a) Design of Stormwater Management System: The design of the stormwater management system shall be in accordance with the applicable sections of the GSMM as directed by the administrator. Any design which proposes a dam shall comply with the Georgia Safe Dams Act and Rules for Dam Safety as applicable.

(b) Natural Resources Inventory: Site reconnaissance and surveying techniques shall be used to complete a thorough assessment of existing natural resources, both terrestrial and aquatic, found on the site. Resources to be identified, mapped, and shown on the Stormwater Management Plan, shall include, at a minimum (as applicable):

(i) Topography (minimum of 2-foot contours) and Steep Slopes (i.e., Areas with Slopes Greater Than 15%),
(ii) Natural Drainage Divides and Patterns,
(iii) Natural Drainage Features (e.g., swales, basins, depressional areas),
(iv) Natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers, drinking water wellhead protection areas and river corridors,
(v) Predominant soils (including erodible soils and karst areas), and
(vi) Existing predominant vegetation including trees, high quality habitat and other existing vegetation.

(c) Better Site Design Practices for Stormwater Management: Stormwater management plans shall preserve the natural drainage and natural treatment systems and reduce the generation of additional stormwater runoff and pollutants to the maximum extent practicable. Additional details can be found in the GSMM Section 2.3.

(d) Stormwater Runoff Quality/Reduction: Stormwater Runoff Quality/Reduction shall be provided by using the following:

(i) For development with a stormwater management plan submitted before **[insert applicable date]**, the applicant may choose either (A) Runoff Reduction or (B) Water Quality.

(ii) For development with a stormwater management plan submitted on or after **[insert applicable date]**, the applicant shall choose (A) Runoff Reduction and

additional water quality shall not be required. To the extent (A) Runoff Reduction has been determined to be infeasible for all or a portion of the site using the Practicability Policy, then (B) Water Quality shall apply for the remaining runoff from a 1.2 inch rainfall event and must be treated to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM.

(A) Runoff Reduction - The stormwater management system shall be designed to retain the first 1.0 inch of rainfall on the site using runoff reduction methods, to the maximum extent practicable.

(B) Water Quality – The stormwater management system shall be designed to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM for runoff from a 1.2 inch rainfall event.

(iii) If a site is determined to be a hotspot as detailed in Section [Y]-5, the **[local jurisdiction]** may require the use of specific or additional components for the stormwater management system to address pollutants of concern generated by that site.

(e) Stream Channel Protection: Stream channel protection shall be provided by using all of the following three approaches:

(i) 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event;

(ii) Erosion prevention measures, such as energy dissipation and velocity control; and

(iii) Preservation of any applicable stream buffer.

(f) Overbank Flood Protection: Downstream overbank flood protection shall be provided by controlling the post-development peak discharge rate to the pre-development rate for the 25-year, 24-hour storm event.

(g) Extreme Flood Protection: Extreme flood protection shall be provided by controlling the 100-year, 24-hour storm event such that flooding is not exacerbated.

(h) Downstream Analysis: Due to peak flow timing and runoff volume effects, some structural components of the stormwater management system fail to reduce discharge peaks to pre-development levels downstream from the site. A downstream peak flow analysis shall be provided to the point in the watershed downstream of the site or the stormwater management system where the area of the site comprises 10% of the total drainage area in accordance with Section 3.1.9 of the GSMM. This is to help ensure that there are minimal

downstream impacts from development on the site. The downstream analysis may result in the need to resize structural components of the stormwater management system.

(i) Stormwater Management System Inspection and Maintenance: The components of the stormwater management system that will not be dedicated to and accepted by the **[local jurisdiction]**, including all drainage facilities, best management practices, credited conservation spaces, and conveyance systems, shall have an inspection and maintenance agreement to ensure that they continue to function as designed. All new development and redevelopment sites are to prepare a comprehensive inspection and maintenance agreement for the on-site stormwater management system. This plan shall be written in accordance with the requirements in Section [Y]-16.

Section [Y]-8. Pre-Submittal Meeting, Stormwater Concept Plan, and Stormwater Management Plan Requirements.

(a) Before a land development permit application is submitted, an applicant may request a pre-submittal meeting with the **[local jurisdiction]**. The pre-submittal meeting should take place based on an early step in the development process such as before site analysis and inventory (GSMM Section 2.4.2.4) or the stormwater concept plan (GSMM Section 2.4.2.5). The purpose of the pre-submittal meeting is to discuss opportunities, constraints, and ideas for the stormwater management system before formal site design engineering. To the extent applicable, local and regional watershed plans, greenspace plans, trails and greenway plans, and other resource protection plans should be consulted in the pre-submittal meeting. Applicants must request a pre-submittal meeting with the **[local jurisdiction]** when applying for a Determination of Infeasibility through the Practicability Policy.

(b) The stormwater concept plan shall be prepared using the minimum following steps:

(i) Develop the site layout using better site design techniques, as applicable (GSMM Section 2.3).

(ii) Calculate preliminary estimates of the unified stormwater sizing criteria requirements for stormwater runoff quality/reduction, channel protection, overbank flooding protection and extreme flood protection (GSMM Section 2.2).

(iii) Perform screening and preliminary selection of appropriate best management practices and identification of potential siting locations (GSMM Section 4.1).

(c) The stormwater concept plan shall contain:

(i) Common address and legal description of the site,

(ii) Vicinity map, and

(iii) Existing conditions and proposed site layout mapping and plans (recommended scale of 1" = 50'), which illustrate at a minimum:

(A) Existing and proposed topography (minimum of 2-foot contours),

(B) Perennial and intermittent streams,

(C) Mapping of predominant soils from USDA soil surveys,

(D) Boundaries of existing predominant vegetation and proposed limits of clearing and grading,

(E) Location and boundaries of other natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.),

(F) Location of existing and proposed roads, buildings, parking areas and other impervious surfaces,

(G) Existing and proposed utilities (e.g., water, sewer, gas, electric) and easements,

(H) Preliminary estimates of unified stormwater sizing criteria requirements,

(I) Preliminary selection and location, size, and limits of disturbance of proposed BMPs,

(J) Location of existing and proposed conveyance systems such as grass channels, swales, and storm drains,

(K) Flow paths,

(L) Location of the boundaries of the base flood floodplain, future-conditions floodplain, and the floodway (as applicable) and relationship of site to upstream and downstream properties and drainage, and

(M) Preliminary location and dimensions of proposed channel modifications, such as bridge or culvert crossings.

(d) The stormwater management plan shall contain the items listed in this part and be prepared under the direct supervisory control of either a registered Professional Engineer or a registered Landscape Architect licensed in the state of Georgia. Items (iii), (iv), (v), and (vi) shall be sealed and signed by a registered Professional Engineer licensed in the

state of Georgia. The overall site plan must be stamped by a design professional licensed in the State of Georgia for such purpose. (GSMM Section 2.4.2.7)

(i) Natural Resources Inventory

(ii) Stormwater Concept Plan

(iii) Existing Conditions Hydrologic Analysis

(iv) Post-Development Hydrologic Analysis

(v) Stormwater Management System

(vi) Downstream Analysis

(vii) Erosion and Sedimentation Control Plan

(viii) BMP Landscaping Plan

(ix) Inspection and Maintenance Agreement

(x) Evidence of Acquisition of Applicable Local and Non-Local Permits

(xi) Determination of Infeasibility (if applicable)

(e) For redevelopment and to the extent existing stormwater management structures are being used to meet stormwater management standards the following must also be included in the stormwater management plan for existing stormwater management structures

(i) As-built Drawings

(ii) Hydrology Reports

(iii) Current inspection of existing stormwater management structures with deficiencies noted

(iv) BMP Landscaping Plans

Section [Y]-9. Application Fee. The fee for review of any land development application shall be based on the fee structure established by the **[local jurisdiction]**, and payment shall be made before the issuance of any land disturbance permit or building permit for the development.

Section [Y]-10. Application Procedures. Land development applications are handled as part of the process to obtain the land disturbance permit pursuant to **[insert local ordinance reference]** or building permit **[insert local ordinance reference]**, as applicable. Before any person begins development on a site, the owner of the site shall first obtain approval in accordance with the following procedure:

(a) File a land development application with the **[local jurisdiction]** on the **[local jurisdiction's]** form of application with the following supporting materials:

(i) the stormwater management plan prepared in accordance with Section [Y]-8 (d),

(ii) a certification that the development will be performed in accordance with the stormwater management plan once approved,

(iii) a **[Preliminary Determination of Infeasibility, as applicable, prepared in accordance with the practicability policy]**, and

(iv) an acknowledgement that applicant has reviewed the **[local jurisdiction's]** form of inspection and maintenance agreement and that applicant agrees to sign and record such inspection and maintenance agreement before the final inspection.

(b) The administrator shall inform the applicant whether the application and supporting materials are approved or disapproved.

(c) If the application or supporting materials are disapproved, the administrator shall notify the applicant of such fact in writing. The applicant may then revise any item not meeting the requirements hereof and resubmit the same for the administrator to again consider and either approve or disapprove.

(d) If the application and supporting materials are approved, the **[local jurisdiction]** may issue the associated land disturbance permit or building permit, provided all other legal requirements for the issuance of such permits have been met. The stormwater management plan included in such applications becomes the approved stormwater management plan.

Section [Y]-11. Compliance with the Approved Stormwater Management Plan. All development shall be:

(a) consistent with the approved stormwater management plan and all applicable land disturbance and building permits, and

(b) conducted only within the area specified in the approved stormwater management plan.

No changes may be made to an approved stormwater management plan without review and advanced written approval by the administrator.

Section [Y]-12. Inspections to Ensure Plan Compliance During Construction. Periodic inspections of the stormwater management system during construction shall be conducted by the staff of the **[local jurisdiction]** or conducted and certified by a professional engineer who has been approved by the **[local jurisdiction]**. Inspections shall use the approved stormwater management plan for

establishing compliance. All inspections shall be documented with written reports that contain the following information:

(a) The date and location of the inspection;

(b) Whether the stormwater management system is in compliance with the approved stormwater management plan;

(c) Variations from the approved stormwater management plan; and

(d) Any other variations or violations of the conditions of the approved stormwater management plan.

Section [Y]-13. Final Inspection; As-Built Drawings; Delivery of Inspection and Maintenance Agreement. Upon completion of the development, the applicant is responsible for:

(a) Certifying that the stormwater management system is functioning properly and was constructed in conformance with the approved stormwater management plan and associated hydrologic analysis,

(b) Submitting as-built drawings showing the final design specifications for all components of the stormwater management system as certified by a professional engineer,

(c) Certifying that the landscaping is established and installed in conformance with the BMP landscaping plan, and

(d) Delivering to **[local jurisdiction]** a signed inspection and maintenance agreement that has been recorded by the owner in the property record for all parcel(s) that make up the site.

The required certification under part (a) shall include a certification of volume, or other performance test applicable to the type of stormwater management system component, to ensure each component is functioning as designed and built according to the design specifications in the approved stormwater management plan. This certification and the required performance tests shall be performed by a qualified person and submitted to the **[local jurisdiction]** with the request for a final inspection. The **[local jurisdiction]** shall perform a final inspection with applicant to confirm applicant has fulfilled these responsibilities.

Section [Y]-14. Violations and Enforcement. Any violation of the approved stormwater management plan during construction, failure to submit as-built drawings, failure to submit a final BMP landscaping plan, or failure of the final inspection shall constitute and be addressed as violations of, or failures to comply with, the underlying land disturbance permit pursuant to **[insert local ordinance reference]** or the underlying building permit pursuant to **[insert local ordinance reference]**. To address a violation of this Article, the **[local jurisdiction]** shall have all the powers and remedies that are available to it for other violations of building and land disturbance permits,

including without limitation the right to issue notices and orders to ensure compliance, stop work orders, and penalties as set forth in the applicable ordinances for such permits.

Section [Y]-15. Maintenance by Owner of Stormwater Management Systems Predating Current GSMM. For any stormwater management systems approved and built based on requirements predating the current GSMM and that is not otherwise subject to an inspection and maintenance agreement, such stormwater management systems shall be maintained by the owner so that the stormwater management systems perform as they were originally designed.

Section [Y]-16. Inspection and Maintenance Agreements.

(a) The owner shall execute an inspection and maintenance agreement with the **[local jurisdiction]** obligating the owner to inspect, clean, maintain, and repair the stormwater management system; including vegetation in the final BMP landscaping plan. The form of the inspection and maintenance agreement shall be the form provided by the **[local jurisdiction]**. After the inspection and maintenance agreement has been signed by the owner and the **[local jurisdiction]**, the owner shall promptly record such agreement at the owner's cost in the property record for all parcel(s) that make up the site.

(b) The inspection and maintenance agreement shall identify by name or official title the person(s) serving as the point of contact for carrying out the owner's obligations under the inspection and maintenance agreement. The owner shall update the point of contact from time to time as needed and upon request by the **[local jurisdiction]**. Upon any sale or transfer of the site, the new owner shall notify the **[local jurisdiction]** in writing within 30 days of the name or official title of new person(s) serving as the point of contact for the new owner. Any failure of an owner to keep the point of contact up to date shall, following 30 days' notice, constitute a failure to maintain the stormwater management system.

(c) The inspection and maintenance agreement shall run with the land and bind all future successors-in-title of the site. If there is a future sale or transfer of only a portion of the site, then:

(i) The parties to such sale or transfer may enter into and record an assignment agreement designating the owner responsible for each portion of the site and associated obligations under the inspection and maintenance agreement. The parties shall record and provide written notice and a copy of such assignment agreement to the **[local jurisdiction]**.

(ii) In the absence of a recorded assignment agreement, all owners of the site shall be jointly and severally liable for all obligations under the inspection and maintenance agreement regardless of what portion of the site they own.

Section [Y]-17. Right of Entry for Maintenance Inspections. The terms of the inspection and maintenance agreement shall provide for the **[local jurisdiction's]** right of entry for maintenance inspections and other specified purposes. If a site was developed before the requirement to have

an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then the **[local jurisdiction]** shall have the right to enter and make inspections pursuant to the **[local jurisdiction's]** general provisions for property maintenance inspections pursuant to **[insert reference to existing local ordinance providing for right of entry and inspections for general property maintenance obligations, whether under the local administration procedures for the Georgia Statewide Minimum Construction Codes or other local property maintenance ordinance]**.

Section [Y]-18. Owner's Failure to Maintain the Stormwater Management System. The terms of the inspection and maintenance agreement shall provide for what constitutes a failure to maintain a stormwater management system and the enforcement options available to **[local jurisdiction]**. If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then:

(a) An owner's failure to maintain the stormwater management system so that it performs as it was originally designed shall constitute and be addressed as a violation of, or failure to comply with, owner's property maintenance obligations pursuant to **[insert reference to existing local ordinance on violations of general property maintenance obligations, whether under the local administration procedures for the Georgia Statewide Minimum Construction Codes or other local property maintenance ordinance]** and

(b) To address such a failure to maintain the stormwater management system, the **[local jurisdiction]** shall have all the powers and remedies that are available to it for other violations of an owner's property maintenance obligations, including without limitation prosecution, penalties, abatement, and emergency measures.

Appendix B:

Mandatory Edits

Overview of Mandatory Edits

MANDATORY EDIT PROMPT	LANGUAGE	LOCATION IN MODEL ORDINANCE	NOTES
Local jurisdiction	The name of your jurisdiction	*36 Instances* Section [Y]-1 has one; Section [Y]-2 has five; Section [Y]-3 has two; Section [Y]-6 has two; Section [Y]-7 has two; Section [Y]-8 has two; Section [Y]-9 has one; Section [Y]-10 has four; Section [Y]-12 has two; Section [Y]-13 has three; Section [Y]-14 has one; Section [Y]-16 has six; Section [Y]-17 has three; Section [Y]-18 has two.	
INSERT AS APPROPRIATE - county administrator / county chief executive officer / mayor / city manager	The title of the person appointed to administer and implement this Article on Post-Construction Stormwater Management for New Development and Redevelopment in accordance with Section [Y]-4	*One Instance* Section [Y]-4	This person could also be a departmental director with similar decision-making authority.
Insert local ordinance reference	No recommended language	*Four Instances* Section [Y]-10 has two; Section [Y]-14 has two.	The local jurisdiction must reference the code section (land disturbance permit and building permit) for each applicable prompt.

MANDATORY EDIT PROMPT	LANGUAGE	LOCATION IN MODEL ORDINANCE	NOTES
Insert applicable date	Choose a date based on description: December 6, 2020 – for Phase II MS4 Permittees December 10, 2020 - for Phase I MS4 Permittees and local jurisdictions without an MS4 Permit	*Two Instances* Section [Y]-7(d)(i) and (ii)	This prompt supports the Municipal Separate Storm Sewer System (MS4) Permit requirement for adoption of the Stormwater Management Standard for Stormwater Runoff Quality/ Reduction.
Preliminary Determination of Infeasibility, as applicable, prepared in accordance with the practicability policy	Insert the name of the documentation that an owner should submit to show that it is infeasible to apply the stormwater runoff quality/ reduction standard. In 2020, the District will publish a Policy on Practicability Analysis for Runoff Reduction that may be used by the local jurisdiction for this prompt. If a jurisdiction choses to adopt the District Guide, no update to this language is needed.	*One Instance* Section [Y]-10(a)(iii)	Language from the Municipal Separate Storm Sewer Permit requiring this documentation, "The determination by the **[local jurisdiction]** that it is infeasible to apply the stormwater runoff quality/reduction standard, on part or all of a project, must be documented with the site plan review documents."
Insert reference to existing local ordinance providing for right of entry and inspections for general property maintenance obligations, whether under the local administration procedures for the Georgia Statewide Minimum Construction Codes or other local property maintenance ordinance	No recommended language	*One Instance* Section [Y]-17	The local jurisdiction must reference their code regarding right of entry and inspections. Incorporating by reference existing administrative procedures of the local jurisdiction is intended to simplify implementation and enforcement.

MANDATORY EDIT PROMPT	LANGUAGE	LOCATION IN MODEL ORDINANCE	NOTES
Insert reference to existing local ordinance on violations of general property maintenance obligations, whether under the local administration procedures for the Georgia Statewide Minimum Construction Codes or other local property maintenance ordinance	No recommended language	*One Instance* Section [Y]-18(a)	The local jurisdiction must reference their code regarding existing local ordinance on violations of general property maintenance obligations. Incorporating by reference existing administrative procedures of the local jurisdiction is intended to simplify implementation and enforcement

Appendix C:
Enhancements

Enhancement 1: Construction Sequencing

Purpose

Stormwater best management practices (BMPs) in the Georgia Stormwater Management Manual must be installed correctly to be effective. For example, sites for infiltration practices must be protected from compaction and sedimentation. A construction sequencing plan provides the local jurisdiction an opportunity to emphasize the different needs for these BMPs during construction and enforce proper construction practices.

Language

Definition
"construction sequencing plan" means a document noting the sequence of construction and identification of infiltration zones for protection during staged installation of permanent post-construction BMPs to ensure suitable site conditions such as avoiding soil compaction by heavy equipment in areas designated for infiltration BMPs.

Edits to Model Ordinance to include this enhancement

- Add the construction sequencing plan definition (provided in *Language* above) to Section [Y]-2. Definitions. Definitions are listed in alphabetical order.
- Require the construction sequencing plan to be part of the Stormwater Management Plan by adding it to the list in Section [Y]-8 (d) as a new (xii).
- Incorporate the construction sequencing plan into construction inspections by adding this bolded and italicized language to Section [Y]-12 as follows, "Inspections shall use the approved stormwater management plan and the ***construction sequencing plan*** for establishing compliance."

Enhancement 2: Pre-Development Hydrology

Purpose

Local jurisdictions that would like to require stormwater management design to be based on original pre-developed conditions, regardless of project type (redevelopment or new development), can make the following edits to the Model Ordinance.

Language

Definition
"pre-development hydrology" means ~~(a) for new development,~~ the runoff curve number determined using natural conditions hydrologic analysis based on the natural, undisturbed condition of the site ~~immediately prior to the implementation of the proposed development; and (b) for redevelopment, the existing conditions hydrograph may take into account the existing development when defining the runoff curve number and calculating existing runoff, unless the existing development causes a negative impact on downstream property.~~

Edits to Model Ordinance to include this enhancement

- Edit the pre-development hydrology definition as shown in *Language* above in Section [Y]-2. Definitions.

Enhancement 3: Trout Streams

Purpose

This enhancement supports the MS4 Permit requirement for trout stream protection. The Permit states, "For receiving waters with a trout stream designation, which contain outfalls from the permittee's MS4, the permittee's Stormwater Management Program (SWMP) must address the protection of trout waters from impacts from the MS4 outfalls due to elevated temperature."

As of December 2019 (the date of publication for this document), this enhancement would apply to the following counties: **Bartow, Cherokee, Cobb, Forsyth, Fulton, Gwinnett, and Paulding.**

Language

Definition
"trout stream" means waters designated by the Wildlife Resources Division of the Georgia Department of Natural Resources as Primary Trout Waters or Secondary Trout Streams. Primary Trout Waters are waters supporting a self-sustaining population of Rainbow, Brown or Brook Trout. Secondary Trout Streams are those with no evidence of natural trout reproduction but are capable of supporting trout throughout the year.

Stormwater Management Standard
Trout Stream Protection: Trout stream protection shall be provided by controlling temperature for receiving waters with trout stream designation. In streams designated as primary trout waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F of natural stream temperatures.

Edits to Model Ordinance to include this enhancement

- Add the trout stream definition (provided in *Language* above) to Section [Y]-2. Definitions. Definitions are listed in alphabetical order.
- Add the *Stormwater Management Standard* above as (h) in Section [Y]-7. Stormwater Management Standards. Edit remaining letters in the section so that "j" is the last letter.

Appendix D:
Model Ordinance Crosswalk

Crosswalk for 2002 and 2019 Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment

2002 MODEL ORDINANCE	2019 MODEL ORDINANCE	DISCUSSION
Description	N/A	Introductory language is typically not codified, and the 2019 Draft was formatted for adoption and submittal to MuniCode. Introductory information can be found in the Draft Model User Guide and Memo
Table of Contents	N/A	
Introduction	N/A	
Section 1. General Provisions		
1.1. Purpose and intent	[Y]-1 Purpose and Intent	None
1.2. Applicability	[Y]-5. Applicability Criteria for Stormwater Management Standards [Y]-6. Exemptions from Stormwater Management Standards	Certain exemptions were deleted from the ordinance to match the MS4 permit exemptions
1.3. Designation of Ordinance Administrator	[Y]-4. Designation of Administrator	None
1.4. Compatibility with Other Regulations	[Y]-3. Adoption and Implementation of the GSMM; Conflicts and Inconsistencies	None
1.5. Severability		
1.6. Stormwater Design Manual		
Section 2. Definitions	**[Y]-2 Definitions**	
Section 3. Permit Procedures and Requirements		
3.1 Permit Application Requirements	[Y]-10. Application Procedures.	None
3.2 Stormwater Concept Plan and Consultation Meeting	[Y]-8. Pre-Consultation Meeting, Stormwater Concept Plan, and Stormwater Management Plan Requirements.	None
3.3 Stormwater Management Plan Requirements		
3.4 Stormwater Management Inspection and Maintenance Agreements	[Y]-13 (c) Delivering to [local jurisdiction] a signed inspection and maintenance agreement.	None

3.5 Performance and Maintenance Bonds	N/A	Performance and maintenance bonds may be added and customized for communities that use them but is not applied in enough of the District to be included in the Model
3.6 Application Procedure	[Y]-10. Application Procedures	None
3.7 Application Review Fees	[Y]-9. Application Fee	None
3.8 Modification for Off-Site Facilities	N/A	Off-Site Facilities may be added and customized for communities that use them but is not applied in enough of the District to be included in the Model.
Section 4 Post-Development Stormwater Management Performance Criteria	Section [Y]-7. Stormwater Management Standards.	
4.1 Water Quality	[Y]-7 (d) Stormwater Runoff Quality/Reduction	Runoff reduction has been added to this standard in the 2019 Draft
4.2 Stream Channel Protection	[Y]-7 (e) Stream Channel Protection	2019 Draft matches MS4 Permit
4.3 Overbank Flooding Protection	[Y]-7 (f) Overbank Flood Protection	2019 Draft matches MS4 Permit
4.4 Extreme Flooding Protection	[Y]-7 (g) Extreme Flood Protection	2019 Draft matches MS4 Permit
4.5. Structural Stormwater Controls	[Y]-7 (a) Design of Stormwater Management System	None
4.6 Stormwater Credits for Nonstructural Measures	[Y]-7 (c) Better Site Design Practices for Stormwater Management	This is not a 1:1 conversion, but the better site design element remains in the 2019 Draft; replacing the term “may” for “shall.” The methodology for providing credits related to conservation easements was unclear and was removed.
4.7 Drainage System Guidelines	[Y]-7 (a) Design of Stormwater Management System OR Refer to Georgia Stormwater Management Manual	Compressed or moved to GSMM reference to reduce redundancy

4.8 Dam Design Guidelines	[Y]-3. Adoption and Implementation of the GSMM; Conflicts and Inconsistencies	2019 Draft points to Georgia Safe Dams Act and Rules for Dam Safety
Section 5. Construction Inspections of Post-Development Stormwater Management System		
5.1 Inspections to Ensure Plan Compliance During Construction	[Y]-12. Inspections to Ensure Plan Compliance During Construction	None
5.2 Final Inspection and As Built Plans	[Y]-13. Final Inspection; As-Built Drawings; Delivery of Inspection and Maintenance Agreement	None
Section 6. Ongoing Inspection and Maintenance of Stormwater Facilities and Practices		
6.1 Long-Term Maintenance Inspection of Stormwater Facilities and Practices	[Y]-15. Maintenance by Owner of Stormwater Management Systems Predating Current GSMM [Y]-16. Inspection and Maintenance Agreements	None
6.2 Right-of-Entry for Inspection	[Y]-17. Right of Entry for Maintenance Inspections	Right of Entry grants the local jurisdiction access for inspection, which is generally sufficient for privately owned BMPs. A BMP that has been dedicated to the local government should have an easement that grants an ownership interest, not just a license for temporary access. Dedication is not addressed in this model ordinance given the range of local practices.
6.3 Records of Maintenance Activities	N/A	Should be part of the local jurisdiction's maintenance agreement template.
6.4 Failure to Maintain	[Y]-18. Owner's Failure to Maintain the Stormwater Management System	None

Section 7. Violations, Enforcement and Penalties		
7.1 Notice of Violation	[Y]-14. Violations and Enforcement	None
7.2 Penalties		

Appendix E:
Model Ordinance Redline

Document Comparison for 2002 and 2019 Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment

DOCUMENT COMPARISON KEY	
Text Sample	Text that is the same for both documents
~~Text Sample~~	Text that was deleted from the Current Model Ordinance
Text Sample	Text that was added in the 2019 Draft Model Ordinance

~~APPENDIX A1 – MODEL ORDINANCE FOR POST-DEVELOPMENT STORMWATER MANAGEMENT ORDINANCE FOR NEW DEVELOPMENT AND REDEVELOPMENT~~

~~DESCRIPTION~~

~~This model ordinance addresses post-development stormwater management requirements for new development and redevelopment in a community. The ordinance defines requirements for a post-development stormwater management plan, which is required in order to undertake land development activities. This plan contains the details of how the development will address post-development stormwater runoff quality and quantity impacts resulting from the permanent alteration of the character and hydrology of the land surface as well as the nonpoint source pollution from land use activities. The ordinance also outlines the water quantity and quality performance criteria for managing this runoff and specifies local requirements for the use of structural stormwater controls and nonstructural practices, in order to protect public health and safety, protection of public and private property and infrastructure, and environmental protection. Ongoing long-term inspection and maintenance provisions are provided. The majority of technical criteria and standards are adopted by reference through the use of a local stormwater management design manual.~~

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~~Introduction~~

~~Section 1. General Provisions Section~~
~~2. Definitions~~

~~Section 3. Permit Procedures and Requirements~~

~~Section 4. Post-Development Stormwater Management Performance Criteria~~

~~Section 5. Construction Inspections of Post-Development Stormwater Management System~~
~~Section 6. Ongoing Inspection and Maintenance of Stormwater Facilities and Practices Section~~
~~7. Violations, Enforcement and Penalties~~

Note: Italicized text with this symbol ➔ should be interpreted as comments, instructions, or information to assist the local government in tailoring the ordinance. This text would not appear in a final adopted ordinance.

INTRODUCTION

It is hereby determined that:

Land development projects and other land use conversions, and their associated changes to land cover, permanently alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, which in turn increase flooding, stream channel erosion, and sediment transport and deposition;

Land development projects and other land use conversions also contribute to increased nonpoint source pollution and degradation of receiving waters;The impacts of post-development stormwater runoff quantity and quality can adversely affect public safety, public and private property, drinking water supplies, recreation, fish and other aquatic life, property values and other uses of lands and waters;

These adverse impacts can be controlled and minimized through the regulation of stormwater runoff quantity and quality from new development and redevelopment, by the use of both structural facilities as well as nonstructural measures, such as the conservation of open space and greenspace areas. The preservation and protection of natural area and greenspace for stormwater management benefits is encouraged through the use of incentives or "credits." The Georgia Greenspace Program provides a mechanism for the preservation and coordination of those greenspace areas which provide stormwater management quality and quantity benefits;

Localities in the State of Georgia are required to comply with a number of both State and Federal laws, regulations and permits which require a locality to address the impacts of post-development stormwater runoff quality and nonpoint source pollution;

Therefore, **(local jurisdiction)** has established this set of stormwater management policies toprovide reasonable guidance for the regulation of post-development stormwater runoff for the purpose of protecting local water resources from degradation. It has determined that it is in the public interest to regulate post-development stormwater runoff discharges in order to control and minimize increases in stormwater runoff rates and volumes, post-construction soil erosion and sedimentation, stream channel erosion, and nonpoint source pollution associated with post-development stormwater runoff.

SECTION 1. GENERAL PROVISIONS

Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment

Article [X]. Post-Construction Stormwater Management for New Development and Redevelopment.

1.1. Section [Y]-1. Purpose and Intent

. The purpose of this ~~ordinance~~article is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-~~development~~construction stormwater runoff and nonpoint source pollution associated with new development and redevelopment. ~~It has been determined that proper~~Proper management of post-~~development~~ construction stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, environment and general welfare of the public, and protect water and aquatic resources. ~~This ordinance seeks to meet that purpose through the following objectives:~~Additionally, the **[local jurisdiction]** is required to comply with several State and Federal laws, regulations and permits and the requirements of the Metropolitan North Georgia Water Planning District's regional water plan related to managing the water quantity, velocity, and quality of post- construction stormwater runoff.

~~(1) Establish decision-making processes surrounding land development activities that protect~~Section [Y]-2. Definitions. For this Article, the ~~integrity of the watershed and preserve the health of water resources;~~

~~(2) Require that new development and redevelopment maintain the pre-development hydrologic response in their post-development state as nearly as practicable in order to reduce flooding, streambank erosion, nonpoint source pollution and increases in stream temperature, and maintain the integrity of stream channels and aquatic habitats;~~

~~(3) Establish minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;~~

~~(4) Establish design and application criteria for the construction and use of structural stormwater control facilities that can be used to meet the minimum post-development stormwater management standards;~~

~~(5) Encourage the use of nonstructural stormwater management and stormwater better site design practices, such as the preservation of greenspace and other conservation areas, to the maximum extent practicable. Coordinate site design plans, which include greenspace, with the county's greenspace protection plan;~~

~~(6) Establish provisions for the long-term responsibility for and maintenance of structural stormwater control facilities and nonstructural stormwater management practices to ensure that they continue to function as designed, are maintained, and pose no threat to public safety; and,~~

~~(7) Establish administrative procedures for the submission, review, approval and disapproval of stormwater management plans, and for the inspection of approved active projects, and long- term follow up.~~

~~➲ *The above list is a general set of objectives to reduce the impacts of post-development stormwater runoff quantity and quality from land development activities. The local stormwater authority may wish to set more specific objectives based upon a watershed management plan, impervious surface targets, the findings of a watershed assessment or study, or in order to address a local water quality problem or TMDL.*~~

~~1.2. Applicability~~

~~A.~~ ~~This ordinance~~terms below shall ~~be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt~~

pursuant to Subsection 2 below. These standards apply to any new development or redevelopment site that meets one or more ofhave the following criteria:meanings:

a. New development that involves the creation of 5,000 square feet or more of impervious cover, or that involves other land development activities of 1 acre or more;

b. Redevelopment that includes the creation, addition or replacement of 5,000 square feet or more of impervious cover, or that involves other land development activity of one (1) acre or more;

c. Any new development or redevelopment, regardless of size, that is defined by the (

"administrator) to be a hotspot land use; or,

d. Land development activities that are smaller than the minimum applicability criteria set forth in items A and B above if such activities are part of a larger common plan of development, even though multiple, separate and distinct land development activities may take place at different times on different schedules.

(2) The following activities are exempt from this ordinance:

a. Individual single-family or duplex residential lots that are not part of a subdivision or phased development project;

b. Additions or modifications to existing single-family or duplex residential structures;

c. Agricultural or silvicultural land management activities within areas zoned for these activities; and,

d. Repairs to any stormwater management facility or practice deemed necessary by the **(administrator)**.

1.3. Designation of Ordinance Administrator

The **(title of administrator)** or **(designee)** is hereby " means the person appointed to administer and implement the provisions of this ordinanceArticle on Post-Construction Stormwater Management for New Development and Redevelopment in accordance with Section [Y]-4.

1.4. Compatibility with Other Regulations

This ordinance is not intended to modify or repeal any other ordinance, rule, regulation or other provision of law. The requirements of this ordinance are in addition to the requirements of any other ordinance, rule, regulation or other provision of law, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control.

1.5. Severability

If the provisions of any section, subsection, paragraph, subdivision or clause of this ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this ordinance.

1.6. Stormwater Design Manual

The **(local permitting authority)** will utilize the policy, criteria and information including technical specifications and standards in the latest edition of the Georgia Stormwater Management Manual and any relevant local addenda (➲ *or equivalent local stormwater management design manual*), for the proper implementation of the requirements of this ordinance. The manual may be updated and expanded periodically, based on improvements in science, engineering, monitoring and local maintenance experience.

➲ *All references to the Georgia Stormwater Management Manual (GSMM) are presumed to be the "latest edition" as defined on the GSMM website at www.georgiastormwater.com. Updates, errata and revisions will be provided on the website. Local authorities may wish to develop a local manual or addendum that complements the GSMM. Further, the local permitting authority may wish to use its own equivalent stormwater management design manual provided that it includes an approach and standards at least as stringent as the Georgia Stormwater Management Manual.*

SECTION 2. DEFINITIONS

"**Applicant**

"applicant" means a person submitting a post-land development stormwater management application and plan for approval.

"**Channel**

"BMP" or "best management practice" means both structural devices to store or treat stormwater runoff and non-structural programs or practices which are designed to prevent or reduce the pollution of the waters of the State of Georgia.

"BMP landscaping plan" means a design for vegetation and landscaping that is critical to the performance and function of the BMP including how the BMP will be stabilized and established with vegetation. It shall include a layout of plants and plant names (local and scientific).

"channel" means a natural or artificial watercourse with a definite bed and banks that conductsconveys continuously or periodically flowing water.

"**Conservation Easement**" means an agreement between a land owner and the (local jurisdiction) or other government agency or land trust that permanently protects open space or greenspace on the owner's land by limiting the amount and type of development that can take place, but continues to leave the remainder of the fee interest in private ownership.

"**Detention**" means

"detention" means the temporary storage of stormwater runoff in a stormwater managementdetention facility for the purpose of controlling the peak discharge.

"**Detention Facility**

"detention facility" means a detention basin or structure designed for the detention of stormwater runoffstorage and gradual release of stored waterstormwater runoff at controlled rates.

"**Developer**" means a person who undertakes land

"development activities. "**Development**" means a landnew development or land development project.redevelopment.

~~"**Drainage Easement**" means an easement appurtenant or attached to a tract or parcel of land allowing the owner of adjacent tracts or other persons to discharge stormwater runoff onto the tract or parcel of land subject to the drainage easement.~~

~~"**Erosion and Sedimentation Control Plan**~~

"extended detention" means ~~a plan that is designed to minimize the accelerated erosion and sediment runoff at a site during land disturbance activities.~~

~~"**Extended Detention**" means the detention~~ the storage of stormwater runoff for an extended period~~, typically 24 hours or greater~~ of time.

~~"**Extreme Flood Protection**~~

"extreme flood protection" means measures taken to prevent adverse impacts from large low-frequency storm events with a return frequency of 100 years or more.

~~"**Flooding**~~

"flooding" means a volume of surface water that ~~is too great to be confined within~~exceeds the banks or walls of a ~~conveyance~~BMP, or ~~stream~~ channel; and ~~that~~ overflows onto adjacent lands.

~~"**Greenspace**" or "Open Space" means permanently protected areas of the site that are preserved in a natural state.~~

~~"**Hotspot**" means an area where the use of the land has the potential to generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. "**Hydrologic Soil Group (HSG)**" means a Natural Resource Conservation Service classification system in which soils are categorized into four runoff potential groups. The groups range from group A soils, with high permeability and little runoff produced, to group D soils, which have low permeability rates and produce much more runoff.~~

~~"**Impervious Cover**~~

"GSMM" means the latest edition of the Georgia Stormwater Management Manual, Volume 2: Technical Handbook, and its Appendices.

"hotspot" means a land use or activity on a site that has the potential to produce higher than normally found levels of pollutants in stormwater runoff. As defined by the administrator, hotspot land use may include gasoline stations, vehicle service and maintenance areas, industrial facilities (both permitted under the Industrial Stormwater General Permit and others), material storage sites, garbage transfer facilities, and commercial parking lots with high-intensity use.

"impervious surface" means a surface composed of any material that significantly impedes or prevents the natural infiltration of water into ~~soil. Impervious surfaces include, but are not limited to, rooftops, buildings, streets and roads, and any concrete or asphalt surface.~~the soil.

"Industrial Stormwater General Permit" means ~~a~~the National Pollutant Discharge Elimination System (NPDES) permit issued by Georgia Environmental Protection Division to an industry ~~or group of industries which~~for stormwater discharges associated with industrial activity. The permit regulates ~~the~~ pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies~~. "**Infiltration**" means the process of percolating stormwater runoff into the subsoil. "**Jurisdictional Wetland**" means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted~~

~~for life in saturated soil conditions, commonly known as hydrophytic vegetation~~ based on Standard Industrial Classification (SIC) Code.
~~"**Land Development**" means any land change, including, but not limited to, clearing, digging, grubbing, stripping, removal of vegetation, dredging, grading, excavating, transporting and filling of land, construction, paving, and any other installation of impervious cover.~~

~~"**Land Development Activities**" means those actions or activities which comprise, facilitate or result in land development.~~

~~"**Land Development Project**" means a discrete land development undertaking.~~

~~"**Inspection and Maintenance Agreement**" means a~~
"infiltration" means the process of percolating stormwater runoff into the subsoil.

"inspection and maintenance agreement" means a written agreement providing for the long-term inspection, operation, and maintenance of the stormwater management ~~facilities~~system and ~~practices~~its components on a site ~~or~~.

"land development application" means the application for a land development permit on a form provided by **[local jurisdiction]** along with ~~respect to a~~ the supporting documentation required in Section [Y]-10(a).

"land development ~~project~~permit" means the authorization necessary to begin construction-related, land-disturbing activity

"land disturbing activity" means any activity which may result in soil erosion from water or wind and the movement of sediments into state water or onto lands within the state, including but not limited to clearing, dredging, grading, excavating, and filling of land. Land disturbing activity does not include agricultural practices as described O.C.G.A. 12-7-17(5) or silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities.

"linear feasibility program" means a feasibility program developed by **[local jurisdiction]** and submitted to the Georgia Environmental Protection Division, which sets reasonable criteria for determining when ~~properly recorded in the deed records constitutes a restriction on the title to a site or other land involved in a land~~ implementation of stormwater management standards for linear transportation projects being constructed by **[local jurisdiction]** is infeasible.

"linear transportation projects" means construction projects on traveled ways including but not limited to roads, sidewalks, multi-use paths and trails, and airport runways and taxiways.

"MS4 Permit" means the NPDES permit issued by Georgia Environmental Protection Division for discharges from the **[local jurisdiction's]** municipal separate storm sewer system.

"new development ~~project.~~

~~"**New Development**~~" means ~~a~~ land disturbing activities, structural development ~~activity~~(construction, installation or expansion of a building or other structure), and/or creation of impervious surfaces on a previously undeveloped site. ~~"**Nonpoint Source Pollution**~~

"nonpoint source pollution" means a form of water pollution that does not originate from a discrete point such as a ~~sewage~~wastewater treatment ~~plant~~facility or industrial discharge, but involves the transport of pollutants such as sediment, fertilizers, pesticides, heavy metals, oil, grease, bacteria, organic materials and other contaminants from land to surface water ~~and~~or groundwater via mechanisms such as precipitation, stormwater runoff, and leaching. Nonpoint source pollution is a by-product of land use practices such as agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources.

~~"**Nonstructural Stormwater Management Practice**" or "Nonstructural Practice" means any natural or planted vegetation or other nonstructural component of the stormwater management plan that provides for or enhances stormwater quantity and/or quality control or other stormwater management benefits, and includes, but is not limited to, riparian buffers, open and greenspace areas, overland flow filtration areas, natural depressions, and vegetated channels.~~

~~"**Off-Site Facility**" means a stormwater management facility located outside the boundaries of the site.~~

~~"**On-Site Facility**" means a stormwater management facility located within the boundaries ofthe site.~~

~~"**Overbank Flood Protection**~~

"overbank flood protection" means measures taken to prevent an increase in the frequency and magnitude of out-of-bank flooding (i.e. flow events that exceed the capacity of the channel and enter the floodplain~~), and that are intended to protect downstream properties from flooding for the 2-year through 25-year frequency storm events.~~).

~~"**Owner**~~

"owner" means the legal or beneficial owner of a site, including but not limited to, a mortgagee or vendee in possession, receiver, executor, trustee, lessee or other person, firm or corporation in control of the site.

~~"**Permit**" means the permit issued by the (local permitting authority) to the applicant which is required for undertaking any land development activity.~~

~~"**Person**" means, except to the extent exempted from this ordinance,~~

"person" means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, city, county or other political subdivision of the State, any interstate body or any other legal entity.

~~"**Post**~~

"post-construction stormwater management" means stormwater best management practices that are used on a permanent basis to control and treat runoff once construction has been completed in accordance with a stormwater management plan.

"post-development" ~~refers to the time period, or~~means the conditions ~~that may reasonably be expected or~~ anticipated to exist~~,~~ on site immediately after completion of the ~~land~~proposed development ~~activity on a site as~~.

"practicability policy" means the latest edition of the ~~context may require~~Metropolitan North Georgia Water Planning District's Policy on Practicability Analysis for Runoff Reduction.

~~"**Pre**~~

"pre-development" ~~refers to the the time period, or~~means the conditions that exist~~,~~ on a site ~~prior to~~immediately before the ~~commencement~~implementation of ~~a land~~the proposed development ~~project and at the time that plans for the land development of a site are approved by the plan approving~~

~~authority~~. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time ~~prior to~~before the first item being approved or permitted shall establish pre-development conditions.
~~"**Project**" means a land development project.~~

~~"**Redevelopment**" means a land development project on a~~

"pre-development hydrology" means (a) for new development, the runoff curve number determined using natural conditions hydrologic analysis based on the natural, undisturbed condition of the site immediately before implementation of the proposed development; and (b) for redevelopment, the existing conditions hydrograph may take into account the existing development when defining the runoff curve number and calculating existing runoff, unless the existing development causes a negative impact on downstream property.

"previously developed site~~, but excludes~~" means a site that has been altered by paving, construction, and/or land disturbing activity.

"redevelopment" means structural development (construction, installation, or expansion of a building or other structure), creation or addition of impervious surfaces, replacement of impervious surfaces not as part of routine maintenance, and land disturbing activities associated with structural or impervious development on a previously developed site. Redevelopment does not include such activities as exterior remodeling.

"routine maintenance" means activities to keep an impervious surface as near as possible to its constructed condition. This includes ordinary maintenance activities, ~~remodeling of existing buildings,~~ resurfacing ~~of~~ paved areas, and exterior building changes or improvements which do not materially increase or concentrate stormwater runoff, or cause additional nonpoint source pollution.
~~"**Regional Stormwater Management Facility**" or "Regional Facility" means stormwater management facilities designed to control stormwater runoff from multiple properties, where the owners or developers of the individual properties may assist in the financing of the facility, and the requirement for on-site controls is either eliminated or reduced.~~

~~"**Runoff**" means stormwater runoff.~~

~~"**Site**" means the parcel of land being developed, or the portion thereof on which the land development project is located.~~

~~"**Stormwater Better Site Design**" means nonstructural site design approaches and techniques that can reduce a site's impact on the watershed and can provide for nonstructural~~
"runoff" means stormwater runoff.

"site" means an area of land where development is planned, which may include all or portions of one or more parcels of land. For subdivisions and other common plans of development, the site includes all areas of land covered under an applicable land development permit.

"stormwater concept plan" means an initial plan for post-construction stormwater management at the site that provides the groundwork for the stormwater management~~. Stormwater better site design includes conserving and protecting~~ plan including the natural ~~areas and greenspace, reducing impervious cover and using natural features for~~ resources inventory, site layout concept, initial

runoff characterization, and first round stormwater management. ~~"**Stormwater Management** system design.~~

"stormwater management plan" means a plan for post-construction stormwater management at the site that meets the requirements of Section [Y]-8(d) and is included as part of the land development application.

"stormwater management standards" means ~~the~~those standards set forth in Section [Y]-7.

"stormwater management system" means the entire set of non-structural site design features and structural BMPs for collection, conveyance, storage, infiltration, treatment, and disposal of stormwater runoff in a manner ~~intended~~designed to prevent increased flood damage, streambank channel erosion, habitat degradation and water quality degradation, and to enhance and promote the public health, safety and general welfare.

~~"**Stormwater Management Facility**" means any infrastructure that controls or conveys~~ "stormwater runoff~~.~~

~~"**Stormwater Management Measure**" means any stormwater management facility or nonstructural stormwater practice.~~

~~"**Stormwater Management Plan**" means a document describing how existing runoff characteristics will be affected by a land development project and containing measures for complying with~~" means flow on the ~~provisions of this ordinance.~~

~~"**Stormwater Management System**" means the entire set of structural and nonstructural stormwater management facilities and practices that are used to capture, convey and control the quantity and quality of the stormwater runoff from a site.~~

~~"**Stormwater Retrofit**" means a stormwater management practice designed for a currently developed site that previously had either no stormwater management practice in place or a practice inadequate to meet the stormwater management requirements of the site.~~

"~~**Stormwater Runoff**~~" ~~means the flow of~~ surface ~~water~~of the ground, resulting from precipitation.

~~"**Structural Stormwater Control**" means a structural stormwater management facility or device that controls stormwater runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release or the velocity of flow of such runoff.~~

~~"**Subdivision**~~

"subdivision" means the division of a tract or parcel of land resulting in one or more new lots or building sites for the purpose, whether immediately or in the future, of sale, other transfer of ownership or land development, and includes divisions of land resulting from or made in connection with the layout or development of a new street or roadway or a change in an existing street or roadway.

SECTION 3. PERMIT PROCEDURES AND REQUIREMENTS

3.1. Permit Application Requirements

No owner or developer shall perform any land development activities without first meeting the requirements of this ordinance prior to commencing the proposed activity.

Unless specifically exempted by this ordinance, any owner or developer proposing a land development activity shall submit to the **(local permitting authority)** a permit application on a form provided by the **(local permitting authority)** for that purpose.

Unless otherwise exempted by this ordinance, a permit application shall be accompanied by the following items in order to be considered:

(1) Stormwater concept plan and consultation meeting certification in accordance with Section 3.2;
(2) Stormwater management plan in accordance with Section 3.3;
(3) Inspection and maintenance agreement in accordance with Section 3.4, if applicable;
(4) Performance bond in accordance with Section 3.5, if applicable; and,
(5) Permit application and plan review fees in accordance with Section 3.6.

➲ *The following stormwater concept plan and consultation meeting is an optional step. At the local government's discretion, the concept plan stage could be made a requirement, particularly for large development projects or those with substantial impact, or for developers and engineers who are unfamiliar with the local government's requirements.*

3.2. Stormwater Concept Plan and Consultation Meeting

Before any stormwater management permit application is submitted, it is recommended that the land owner or developer [shall] meet with the (local permitting authority) for a consultation meeting on a concept plan for the post-development stormwater management system to be utilized in the proposed land development project. This consultation meeting should [shall] take place at the time of the preliminary plan of subdivision or other early step in the development process. The purpose of this meeting is to discuss the post-development stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential ideas for stormwater management designs before the formal site design engineering is commenced.

To accomplish this goal the following information should [shall] be included in the concept plan which should [shall] be submitted in advance of the meeting:

B. Existing Conditions / Proposed Site Plans

Other terms used but not defined in this Article shall be interpreted based on how such terms are defined and used in the GSMM and the **[local jurisdiction's]** MS4 permit.

Section [Y]-3. Adoption and Implementation of the GSMM; Conflicts and Inconsistencies.

(a) In implementing this Article, the **[local jurisdiction]** shall use and require compliance with all relevant design standards, calculations, formulas, methods, and other guidance from the GSMM as well as all related appendices.

(b) This Article is not intended to modify or repeal any other Article, ordinance, rule, regulation or other provision of law, including but not limited to any applicable stream buffers under state and local laws, and the Georgia Safe Dams Act and Rules for Dam Safety. In the event of any conflict or inconsistency between any provision in the **[local jurisdiction's]** MS4 permit and this Article, the provision from the MS4 permit shall control. In the event of any conflict or inconsistency between any provision of this Article and the GSMM, the provision from this Article shall control. In the event of any other conflict or inconsistency between any provision of this Article and any other ordinance, rule, regulation or other provision of law, the provision that is more restrictive or imposes higher protective standards for human health or the environment shall control.

(c) If any provision of this Article is invalidated by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of this Article.

Section [Y]-4. Designation of Administrator. The **[INSERT AS APPROPRIATE - county administrator / county chief executive officer / mayor / city manager]** may from time to time appoint someone to administer and implement this Article.

Section [Y]-5. Applicability Criteria for Stormwater Management Standards. This Article applies to the following activities:

(a) New development that creates or adds 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre of land or greater;

(b) Redevelopment (excluding routine maintenance and exterior remodeling) that creates, adds, or replaces 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre or more;

(c) New development and redevelopment if

(i) such new development or redevelopment is part of a subdivision or other common plan of development, and

(ii) the sum of all associated impervious surface area or land disturbing activities that are being developed as part of such subdivision or other common plan of development meets or exceeds the threshold in (a) and (b) above;

(d) Any commercial or industrial new development or redevelopment, regardless of size, that is a hotspot land use as defined in this Article; and

(e) Linear transportation projects that exceed the threshold in (a) or (b) above.

Section [Y]-6. Exemptions from Stormwater Management Standards. This Article does not apply to the following activities:

(a) Land disturbing activity conducted by local, state, authority, or federal agencies, solely to respond to an emergency need to protect life, limb, or property or conduct emergency repairs;

(b) Land disturbing activity that consists solely of cutting a trench for utility work and related pavement replacement;

(c) Land disturbing activity conducted by local, state, authority, or federal agencies, whose sole purpose is to implement stormwater management or environmental restoration;

(d) Repairs to any stormwater management system deemed necessary by the administrator;

(e) Agricultural practices as described O.C.G.A. 12-7-17(5) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in [Y]-5 (a) or (b);

(f) Silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in [Y]-5 (a) or (b);

(g) Installations or modifications to existing structures solely to implement Americans with Disabilities Act (ADA) requirements, including but not limited to elevator shafts, handicapped access ramps and parking, and enlarged entrances or exits; and

(h) Linear transportation projects being constructed by **[local jurisdiction]** to the extent the administrator determines that the stormwater management standards may be infeasible to apply, all or in part, for any portion of the linear transportation project. For this exemption to apply, an infeasibility report that is compliant with the **[local jurisdiction]** linear feasibility program shall first be submitted to the administrator that contains adequate documentation to support the evaluation for the applicable portion(s) and any resulting infeasibility determination, if any, by the administrator.

Section [Y]-7. Stormwater Management Standards. Subject to the applicability criteria in Section [Y]-5 and exemptions in Section [Y]-6, the following stormwater management standards apply. Additional details for each standard can be found in the GSMM Section 2.2.2.2:

(a) Design of Stormwater Management System: The design of the stormwater management system shall be in accordance with the applicable sections of the GSMM as directed by the administrator. Any design which proposes a dam shall comply with the Georgia Safe Dams Act and Rules for Dam Safety as applicable.

(b) Natural Resources Inventory: Site reconnaissance and surveying techniques shall be used to complete a thorough assessment of existing natural resources, both terrestrial and aquatic, found on the site. Resources to be identified, mapped, and shown on the Stormwater Management Plan, shall include, at a minimum (as applicable):

(vii) Topography (minimum of 2-foot contours) and Steep Slopes (i.e., Areas with Slopes Greater Than 15%),
(viii) Natural Drainage Divides and Patterns,
(ix) Natural Drainage Features (e.g., swales, basins, depressional areas),
(x) Natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers, drinking water wellhead protection areas and river corridors,
(xi) Predominant soils (including erodible soils and karst areas), and
(xii) Existing predominant vegetation including trees, high quality habitat and other existing vegetation.

(c) Better Site Design Practices for Stormwater Management: Stormwater management plans shall preserve the natural drainage and natural treatment systems and reduce the generation of additional stormwater runoff and pollutants to the maximum extent practicable. Additional details can be found in the GSMM Section 2.3.

(d) Stormwater Runoff Quality/Reduction: Stormwater Runoff Quality/Reduction shall be provided by using the following:

(i) For development with a stormwater management plan submitted before **[insert applicable date]**, the applicant may choose either (A) Runoff Reduction or (B) Water Quality.

(ii) For development with a stormwater management plan submitted on or after **[insert applicable date]**, the applicant shall choose (A) Runoff Reduction and additional water quality shall not be required. To the extent (A) Runoff Reduction has been determined to be infeasible for all or a portion of the site using the Practicability Policy, then (B) Water Quality shall apply for the remaining runoff from a 1.2 inch rainfall event and must be treated to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM.

(A) Runoff Reduction - The stormwater management system shall be designed to retain the first 1.0 inch of rainfall on the site using runoff reduction methods, to the maximum extent practicable.

(B) Water Quality – The stormwater management system shall be designed to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM for runoff from a 1.2 inch rainfall event.

(iii) If a site is determined to be a hotspot as detailed in Section [Y]-5, the **[local jurisdiction]** may require the use of specific or additional components for the

stormwater management system to address pollutants of concern generated by that site.

(e) Stream Channel Protection: Stream channel protection shall be provided by using all of the following three approaches:

(i) 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event;

(ii) Erosion prevention measures, such as energy dissipation and velocity control; and

(iii) Preservation of any applicable stream buffer.

(f) Overbank Flood Protection: Downstream overbank flood protection shall be provided by controlling the post-development peak discharge rate to the pre-development rate for the 25-year, 24-hour storm event.

(g) Extreme Flood Protection: Extreme flood protection shall be provided by controlling the 100-year, 24-hour storm event such that flooding is not exacerbated.

(h) Downstream Analysis: Due to peak flow timing and runoff volume effects, some structural components of the stormwater management system fail to reduce discharge peaks to pre-development levels downstream from the site. A downstream peak flow analysis shall be provided to the point in the watershed downstream of the site or the stormwater management system where the area of the site comprises 10% of the total drainage area in accordance with Section 3.1.9 of the GSMM. This is to help ensure that there are minimal downstream impacts from development on the site. The downstream analysis may result in the need to resize structural components of the stormwater management system.

(i) Stormwater Management System Inspection and Maintenance: The components of the stormwater management system that will not be dedicated to and accepted by the **[local jurisdiction]**, including all drainage facilities, best management practices, credited conservation spaces, and conveyance systems, shall have an inspection and maintenance agreement to ensure that they continue to function as designed. All new development and redevelopment sites are to prepare a comprehensive inspection and maintenance agreement for the on-site stormwater management system. This plan shall be written in accordance with the requirements in Section [Y]-16.

Section [Y]-8. Pre-Submittal Meeting, Stormwater Concept Plan, and Stormwater Management Plan Requirements.

(a) Before a land development permit application is submitted, an applicant may request a pre-submittal meeting with the **[local jurisdiction]**. The pre-submittal meeting should take place based on an early step in the development process such as before site analysis and inventory (GSMM Section 2.4.2.4) or the stormwater concept plan (GSMM Section 2.4.2.5). The purpose of the pre-submittal meeting is to discuss opportunities, constraints, and ideas

for the stormwater management system before formal site design engineering. To the extent applicable, local and regional watershed plans, greenspace plans, trails and greenway plans, and other resource protection plans should be consulted in the pre-submittal meeting. Applicants must request a pre-submittal meeting with the **[local jurisdiction]** when applying for a Determination of Infeasibility through the Practicability Policy.

(b) The stormwater concept plan shall be prepared using the minimum following steps:

(i) Develop the site layout using better site design techniques, as applicable (GSMM Section 2.3).

(ii) Calculate preliminary estimates of the unified stormwater sizing criteria requirements for stormwater runoff quality/reduction, channel protection, overbank flooding protection and extreme flood protection (GSMM Section 2.2).

(iii) Perform screening and preliminary selection of appropriate best management practices and identification of potential siting locations (GSMM Section 4.1).

(c) The stormwater concept plan shall contain:

(i) Common address and legal description of the site,

(ii) Vicinity map, and

(iii) Existing conditions and proposed site layout ~~sketch plans,~~mapping and plans (recommended scale of 1" = 50'), which illustrate at a minimum: ~~existing~~

(A) Existing and proposed topography~~; perennial~~ (minimum of 2-foot contours),

(B) Perennial and intermittent streams~~; mapping~~,

(C) Mapping of predominant soils from USDA soil surveys ~~(when available); boundaries~~,

(D) Boundaries of existing predominant vegetation and proposed limits of clearing and grading~~; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.~~,

~~C. Natural Resources Inventory~~

~~A written or graphic inventory of the natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, topography, wetlands, and other native vegetative areas on the site, as well as the location~~

(E) Location and boundaries of other natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc~~.~~).

~~Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for development.~~.),

~~D. Stormwater Management System Concept Plan~~

~~A written or graphic concept plan of the proposed post-development~~

(F) Location of existing and proposed roads, buildings, parking areas and other impervious surfaces,

(G) Existing and proposed utilities (e.g., water, sewer, gas, electric) and easements,

(H) Preliminary estimates of unified stormwater ~~management system including: preliminary~~sizing criteria requirements,

(I) Preliminary selection and location, size, and limits of disturbance of proposed ~~structural stormwater controls; location~~BMPs,

(J) Location of existing and proposed conveyance systems such as grass channels, swales, and storm drains~~; flow~~,

(K) Flow paths~~; location of~~ ,

(L) Location of the boundaries of the base flood floodplain~~/~~, future-conditions floodplain, and the floodway ~~limits;~~(as applicable) and relationship of site to upstream and downstream properties and ~~drainages;~~drainage, and ~~preliminary~~

(M) Preliminary location and dimensions of proposed ~~stream~~ channel modifications, such as bridge or culvert crossings.

~~Local watershed plans, the **(county)** greenspace projection plan (if applicable), and any relevant resource protection plans will be consulted in the discussion of the concept plan.~~

~~3.3. Stormwater Management Plan Requirements~~

(d) The stormwater management plan shall ~~detail how post-development stormwater runoff will be controlled or managed and how the proposed project will meet the requirements of~~ contain the items listed in this ~~ordinance, including the performance criteria set forth in Section 4 below.~~

~~This plan shall be in accordance with the criteria established in this section~~part and be prepared under the direct supervisory control of either a registered Professional Engineer or a registered Landscape Architect licensed in the state of Georgia. ~~Section C, D, E~~Items (iii), (iv), (v), and (vi) shall be sealed and signed by a registered Professional Engineer licensed in the state of Georgia. The overall site plan must be stamped by a design professional licensed in the State of Georgia for such purpose. (GSMM Section 2.4.2.7)

~~and F shall be prepared under the direct supervisory control of a registered Professional Engineer, who shall seal and sign the work. Portions of the overall plan may be prepared and stamped by a registered Land Surveyor licensed in the state of Georgia as appropriate, such as boundary surveys, contour maps, erosion and sedimentation control plans.~~

~~The stormwater management plan must ensure that the requirements and criteria in this ordinance are being complied with and that opportunities are being taken to minimize adverse post-development stormwater runoff impacts from the development. The plan shall consist of maps, narrative, and supporting design calculations (hydrologic and hydraulic) for the proposed stormwater management system. The plan shall include all of the information required in the Stormwater Management Site Plan checklist found in the stormwater design manual. This includes:~~

~~A. Common address and legal description of site~~
~~B. Vicinity Map~~

(i) Natural Resources Inventory

(ii) Stormwater Concept Plan

~~4~~ (iii) Existing Conditions Hydrologic Analysis

~~The existing condition hydrologic analysis for stormwater runoff rates, volumes, and velocities, which shall include: a topographic map of existing site conditions with the drainage basin boundaries indicated; acreage, soil types and land cover of areas for each subbasin affected by the project; all perennial and intermittent streams and other surface water features; all existing stormwater conveyances and structural control facilities; direction of flow and exits from the site; analysis of runoff provided by off-site areas upstream of the project site; and methodologies, assumptions, site parameters and supporting design calculations used in analyzing the existing conditions site hydrology. For redevelopment sites, predevelopment conditions shall be modeled using the established guidelines for the portion of the site undergoing land development activities.~~

~~➲ *The local government will need to establish guidelines for how the predevelopment conditions will be modeled for redevelopment sites.*~~

~~5~~ (iv) Post-Development Hydrologic Analysis

~~The post-development hydrologic analysis for stormwater runoff rates, volumes, and velocities, which shall include: a topographic map of developed site conditions with the post-development drainage basin boundaries indicated; total area of post-development impervious surfaces and other land cover areas for each subbasin affected by the project; calculations for determining the runoff volumes that need to be addressed for each subbasin for the development project to meet the post-development stormwater management performance criteria in Section 4; location and boundaries of proposed natural feature protection and conservation areas; documentation and calculations for any applicable site design credits that are being utilized; methodologies, assumptions, site parameters and supporting design calculations used in analyzing the existing conditions site hydrology. If~~

~~the land development activity on a redevelopment site constitutes more than 50 percent of the site area for the entire site, then the performance criteria in Section 4 must be met for the stormwater runoff from the entire site.~~

~~➲ *The Metropolitan North Georgia Water Planning District is developing a spreadsheet-based computer modeling tool that will assist site developers in performing the post-development hydrologic water quality analysis.*~~

~~6~~ (v) Stormwater Management System

~~The description, scaled drawings and design calculations for the proposed post-development stormwater management system, which shall include: A map and/or drawing or sketch of the stormwater management facilities, including the location of nonstructural site design features and the placement of existing and proposed structural stormwater controls, including design water surface elevations, storage volumes available from zero to maximum head, location of inlet and outlets, location of bypass and discharge systems, and all orifice/restrictor sizes; a narrative describing how the selected structural stormwater controls will be appropriate and effective; cross-section and profile drawings and design details for each of the structural stormwater controls in the system, including supporting calculations to show that the facility is designed according to the applicable design criteria; a hydrologic and hydraulic analysis of the stormwater management system for all applicable design storms (including stage-storage or outlet rating curves, and inflow and outflow hydrographs); documentation and supporting calculations to show that the stormwater management system adequately meets the post-development stormwater management performance criteria in Section 4; drawings, design calculations, elevations and hydraulic grade lines for all existing and proposed stormwater conveyance elements including stormwater drains, pipes, culverts, catch basins, channels, swales and areas of overland flow; and where applicable, a narrative describing how the stormwater management system corresponds with any watershed protection plans and/or local greenspace protection plan.~~

~~7 Post-Development~~ (vi) Downstream Analysis

~~A downstream peak flow analysis which includes the assumptions, results and supporting calculations to show safe passage of post-development design flows downstream. The analysis of downstream conditions in the report shall address each and every point or area along the project site's boundaries at which runoff will exit the property. The analysis shall focus on the portion of the drainage channel or watercourse immediately downstream from the project. This area shall extend downstream from the project to a point in the drainage basin where the project area is 10 percent of the total basin area. In calculating runoff volumes and discharge rates, consideration may need to be given to any planned future upstream land use changes. The analysis shall be in accordance with the stormwater design manual.~~

~~8 Construction-Phase~~ (vii) Erosion and Sedimentation Control Plan

~~An erosion and sedimentation control plan in accordance with the Georgia Erosion and Sedimentation Control Act (*or reference to the local Erosion and Sedimentation Control Ordinance*) or NPDES Permit for Construction Activities. The plan shall also include information~~

~~on the sequence/phasing of construction and temporary stabilization measures and temporary structures that will be converted into permanent stormwater controls.~~

~~9~~ (viii) BMP Landscaping ~~and Open Space~~ Plan

~~A detailed landscaping and vegetation plan describing the woody and herbaceous vegetation that will be used within and adjacent to stormwater management facilities and practices. The landscaping plan must also include: the arrangement of planted areas, natural and greenspace areas and other landscaped features on the site plan; information necessary to construct the landscaping elements shown on the plan drawings; descriptions and standards for the methods, materials and vegetation that are to be used in the construction; density of plantings; descriptions of the stabilization and management techniques used to establish vegetation; and a description of who will be responsible for ongoing maintenance of vegetation for the stormwater management facility and what practices will be employed to ensure that adequate vegetative cover is preserved.~~

~~C. Operations and Maintenance Plan~~

~~Detailed description of ongoing operations and maintenance procedures for stormwater management facilities and practices to ensure their continued function as designed and constructed or preserved. These plans will identify the parts or components of a stormwater management facility or practice that need to be regularly or periodically inspected and maintained, and the equipment and skills or training necessary. The plan shall include an inspection and maintenance schedule, maintenance tasks, responsible parties for maintenance, funding, access and safety issues. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.~~

~~D. Maintenance Access Easements~~

~~The applicant must ensure access from public right-of-way to stormwater management facilities and practices requiring regular maintenance at the site for the purpose of inspection and repair by securing all the maintenance access easements needed on a permanent basis.~~

~~Such access shall be sufficient for all necessary equipment for maintenance activities. Upon final inspection and approval, a plat or document indicating that such easements exist shall be recorded and shall remain in effect even with the transfer of title of the property.~~

~~➲ *The local government will establish which stormwater facilities and practices will require regular maintenance.*~~

~~10~~ (ix) Inspection and Maintenance ~~Agreements~~Agreement

~~Unless an on-site stormwater management facility or practice is dedicated to and accepted by the **(local permitting authority)** as provided in Section 3.4 below, the applicant must execute an easement and an inspection and maintenance agreement binding on all subsequent owners of land served by an on-site stormwater management facility or practice in accordance Section 3.4.~~

~~11~~ (x) Evidence of Acquisition of Applicable Local and Non-~~local~~Local Permits

~~The applicant shall certify~~(xi) Determination of Infeasibility (if applicable)

(e) For redevelopment and ~~provide documentation~~ to the ~~**(local permitting authority)** that all other applicable environmental permits have been acquired for the site prior~~extent existing stormwater management structures are being used to ~~approval of the~~ meet stormwater management standards the following must also be included in the stormwater management plan~~.~~ for existing stormwater management structures

~~3.4. Stormwater Management Inspection and Maintenance Agreements~~

~~Prior to the issuance of any permit for a land development activity requiring a stormwater management facility or practice hereunder and for which the **(local permitting authority)** requires ongoing maintenance, the applicant~~

(i) As-built Drawings

(ii) Hydrology Reports

(iii) Current inspection of existing stormwater management structures with deficiencies noted

(iv) BMP Landscaping Plans

Section [Y]-9. Application Fee. The fee for review of any land development application shall be based on the fee structure established by the **[local jurisdiction]**, and payment shall be made before the issuance of any land disturbance permit or building permit for the development.

Section [Y]-10. Application Procedures. Land development applications are handled as part of the process to obtain the land disturbance permit pursuant to **[insert local ordinance reference]** or building permit **[insert local ordinance reference]**, as applicable. Before any person begins development on a site, the owner of the site ~~must, unless an on site~~shall first obtain approval in accordance with the following procedure:

(a) File a land development application with the **[local jurisdiction]** on the **[local jurisdiction's]** form of application along the following supporting materials:

(i) the stormwater management ~~facility or practice is dedicated to and accepted by the **(local permitting authority)**, execute an~~plan prepared in accordance with Section [Y]-8 (d),

(ii) a certification that the development will be performed in accordance with the stormwater management plan once approved,

(iii) a **[Preliminary Determination of Infeasibility, as applicable, prepared in accordance with the practicability policy]**, and

(iv) an acknowledgement that applicant has reviewed the **[local jurisdiction's]** form of inspection and maintenance agreement~~,~~ and that applicant agrees to sign and~~/or a conservation easement, if applicable, that shall be binding on all subsequent owners of the site.~~

➲ *The local government will establish which stormwater facilities and practices will require formal inspection and maintenance agreements.*

The record such inspection and maintenance agreement, if applicable, must be approved by the **(local permitting authority)** prior to plan approval, and recorded in the deed records upon before the final plat approval.

The inspection and maintenance agreement shall identify by name or official title the person(s) responsible for carrying out the inspection and maintenance. Responsibility for the operation and maintenance of the stormwater management facility or practice, unless assumed by a governmental agency, shall remain with the property owner and shall pass to any successor owner. If portions of the land are sold or otherwise transferred, legally binding arrangements shall be made to pass the inspection and maintenance responsibility to the appropriate successors in title. These arrangements shall designate for each portion of the site, the person to be permanently responsible for its inspection and maintenance.

As part of the inspection and maintenance agreement, a schedule shall be developed for when and how often routine inspection and maintenance will occur to ensure proper function of the stormwater management facility or practice. The agreement shall also include plans for annual inspections to ensure proper performance of the facility between scheduled maintenance and shall also include remedies for the default thereof.

In addition to enforcing the terms of the inspection and maintenance agreement, the **(local permitting authority)** may also enforce all of the provisions for ongoing inspection and maintenance in Section 6 of this ordinance.

The **(local permitting authority)**, in lieu of an inspection and maintenance agreement, may accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this ordinance and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

3.5. Performance and Maintenance Bonds

➲ *The local permitting authority may insert provisions under this section requiring the posting of bonds or other security to guarantee performance of construction and/or maintenance obligations hereunder.*

3.6. Application Procedure

(1) Applications for land development permits shall be filed with the **(local permitting authority)**.

(2) Permit applications shall include the items set forth in Section 3.1 above (two copies of the stormwater management plan and the inspection maintenance agreement, if applicable, shall be included).

~~(1) The **(local permitting authority)**~~(b) The administrator shall inform the applicant whether the application~~, stormwater managment plan and inspection and maintenance agreement~~ and supporting materials are approved or disapproved.

~~(2)~~ (c) If ~~either~~ the ~~permit~~ application~~, stormwater management plan~~ or ~~inspection and maintenance agreement~~supporting materials are disapproved, the ~~**(local permitting authority)**~~administrator shall notify the applicant of such fact in writing. The applicant may then revise any item not meeting the requirements hereof and resubmit the same~~, in which event subparagraph 3 above and this subparagraph shall apply to such resubmittal.~~ for the administrator to again consider and either approve or disapprove.

~~Upon a finding by~~

~~(3)~~ (d) If the ~~**(local permitting authority)** that the permit~~ application~~, stormwater management plan~~ and ~~inspection and maintenance agreement, if applicable, meet the requirements of this ordinance, the **(local permitting authority)**~~supporting materials are approved, the **[local jurisdiction]** may issue ~~a permit for~~ the associated land ~~development project~~disturbance permit or building permit, provided all other legal requirements for the issuance of such ~~permit~~permits have been met.

~~(4) Notwithstanding the issuance of the permit, in conducting the land development project, the applicant or other responsible person shall be subject to the following requirements:~~

- The ~~applicant shall comply with all applicable requirements of the approved plan and this ordinance and shall certify that all land clearing, construction, land development and drainage will be done according to the approved plan;~~stormwater management plan included in such applications becomes the approved stormwater management plan.

~~The land~~

Section [Y]-11. Compliance with the Approved Stormwater Management Plan. All development ~~project~~ shall be~~-~~:

(a) consistent with the approved stormwater management plan and all applicable land disturbance and building permits, and

- (b) conducted only within the area specified in the approved stormwater management plan~~;~~.

~~(a) The **(local permitting authority)** shall be allowed to conduct periodic inspections of the project;~~

- No changes may be made to an approved stormwater management plan without review and advanced written approval by the ~~**(local permitting authority)**; and,~~administrator.

~~(b) Upon completion of the project, the applicant or other responsible person shall submit the engineer's report and certificate and as-built plans required by Section 5.2.~~

~~➲ *Jurisdictions may modify the above local review process to accommodate their current subdivision or development approval process. In addition, local officials will need to decide the appropriate time frames for review based on the number of stormwater management plans, maintenance agreements, etc. submitted, while keeping in mind the time frames for the review of initial and resubmitted applications, as well as the need for timely review turnaround for the*~~

applicant. This will often be determined by the staff available for permit review and inspection of sites undergoing construction.

3.7. Application Review Fees

The fee for review of any stormwater management application shall be based on the fee structure established by the **(local permitting authority)** and shall be made prior to the issuance of any building permit for the development.

➲ *It is recommended that all of the monetary contributions be credited to a local budgetary category to support local plan review, inspection and program administration.*

3.8. Modifications for Off-Site Facilities

The stormwater management plan for each land development project shall provide for stormwater management measures located on the site of the project, unless provisions are made to manage stormwater by an off-site or regional facility. The off-site or regional facility must be located on property legally dedicated for the purpose, must be designed and adequately sized to provide a level of stormwater quantity and quality control that is equal to or greater than that which would be afforded by on-site practices and there must be a legally obligated entity responsible for long-term operation and maintenance of the off-site or regional stormwater facility. In addition, on-site measures shall be implemented, where necessary, to protect upstream and downstream properties and drainage channels from the site to the off-site facility.

A stormwater management plan must be submitted to the **(local permitting authority)** which shows the adequacy of the off-site or regional facility.

To be eligible for a modification, the applicant must demonstrate to the satisfaction of the **(local permitting authority)** that the use of an off-site or regional facility will not result in the following impacts to upstream or downstream areas:

(1) Increased threat of flood damage to public health, life, and property;
(2) Deterioration of existing culverts, bridges, dams, and other structures;
(3) Accelerated streambank or streambed erosion or siltation;
(4) Degradation of in-stream biological functions or habitat; or
(5) Water quality impairment in violation of State water quality standards, and/or violation of any state or federal regulations.

SECTION 4. POST-DEVELOPMENT STORMWATER MANAGEMENT PERFORMANCE CRITERIA

The following performance criteria shall be applicable to all stormwater management plans, unless otherwise provided for in this ordinance:

11.1. Water Quality

All stormwater runoff generated from a site shall be adequately treated before discharge. It will be presumed that a stormwater management system complies with this requirement if:

(3) It is sized to treat the prescribed water quality treatment volume from the site, as defined in the Georgia Stormwater Management Manual;

(4) Appropriate structural stormwater controls or nonstructural practices are selected, designed, constructed or preserved, and maintained according to the specific criteria in the Georgia Stormwater Management Manual; and,

(5) Runoff from hotspot land uses and activities identified by the **(local permitting authority)** are adequately treated and addressed through the use of appropriate structural stormwater controls, nonstructural practices and pollution prevention practices.

11.2. Stream Channel Protection

Protection of stream channels from bank and bed erosion and degradation shall be provided by using all of the following three approaches:

(1) Preservation, restoration and/or reforestation (with native vegetation) of the applicable stream buffer;

(2) 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event;

➲ *This requirement may be adjusted or waived by the (local permitting authority) for sites that discharge directly into larger streams, rivers, wetlands, or lakes, or to a man-made channel or conveyance system where the reduction in these flows will not have an impact on upstream or downstream streambank or channel integrity.*

(3) Erosion prevention measures such as energy dissipation and velocity control.

11.3. Overbank Flooding Protection

Downstream overbank flood and property protection shall be provided by controlling (attenuating) the post-development peak discharge rate to the pre-development rate for the 25-year, 24-hour return frequency storm event. If control of the 1-year, 24-hour storm under

Section 4.2 is exempted, then peak discharge rate attenuation of the 2-year through the 25-year return frequency storm event must be provided.

➲ *This requirement may be adjusted or waived by the (local permitting authority) for sites where the post-development downstream analysis shows that uncontrolled post-development conditions will not increase downstream peak flows, or that meeting the requirement will cause greater peak flow downstream impacts than the uncontrolled post-development conditions.*

11.4. Extreme Flooding Protection

Extreme flood and public safety protection shall be provided by controlling and safely conveying the 100-year, 24 hour return frequency storm event such that flooding is not exacerbated.

➲ *This requirement may be adjusted or waived by the (local permitting authority) for sites where the post-development downstream analysis shows that uncontrolled post-development conditions will not increase downstream peak flows, or that meeting the requirement will cause greater peak flow downstream impacts than the uncontrolled post-development conditions.*

11.5. Structural Stormwater Controls

All structural stormwater management facilities shall be selected and designed using the appropriate criteria from the Georgia Stormwater Management Manual. All structural stormwater controls must be designed appropriately to meet their intended function. For other structural stormwater controls not included in the Georgia Stormwater Management Manual, or for which pollutant removal rates have not been provided, the effectiveness and pollutant removal of the structural control must be documented through prior studies, literature reviews, or other means and receive approval from **(local permitting authority)** before being included in the design of a stormwater management system. In addition, if hydrologic or topographic conditions, or land use activities warrant greater control than that provided by the minimum control requirements, the **(local stormwater permitting authority)** may impose additional requirements deemed necessary to protect upstream and downstream properties and aquatic resources from damage due to increased volume, frequency, and rate of stormwater runoff or increased nonpoint source pollution loads created on the site in question.

Applicants shall consult the Georgia Stormwater Management Manual for guidance on the factors that determine site design feasibility when selecting and locating a structural stormwater control.

11.6. Stormwater Credits for Nonstructural Measures

The use of one or more site design measures by the applicant may allow for a reduction in the water quality treatment volume required under Section 4.1. The applicant may, if approved by the **(local permitting authority)**, take credit for the use of stormwater better site design practices and reduce the water quality volume requirement. For each potential credit, there is a minimum set of criteria and requirements which identify the conditions or circumstances under which the credit may be applied. The site design practices that qualify for this credit and the criteria and procedures for applying and calculating the credits are included in the Georgia Stormwater Management Manual.

11.7. Drainage System Guidelines

Stormwater conveyance facilities, which may include but are not limited to culverts, stormwater drainage pipes, catch basins, drop inlets, junction boxes, headwalls, gutter, swales, channels, ditches, and energy dissipaters shall be provided when necessary for the protection of public right-of-way and private properties adjoining project sites and/or public right-of-ways. Stormwater conveyance facilities that are designed to carry runoff from more that one parcel, existing or proposed, shall meet the following requirements:

~~(1) Methods to calculate stormwater flows shall be in accordance with the stormwater design manual;~~

~~(2) All culverts, pipe systems and open channel flow systems shall be sized in accordance with the stormwater management plan using the methods included in the stormwater design manual; and,~~

~~(3) Design and construction of stormwater conveyance facilities shall be in accordance with the criteria and specifications found in the stormwater design manual.~~

~~11.8.~~ Dam Design Guidelines

~~Any land disturbing activity that involves a site which proposes a dam shall comply with the Georgia Safe Dams Act and Rules for Dam Safety as applicable.~~

~~SECTION 5. CONSTRUCTION INSPECTIONS OF POST-DEVELOPMENT STORMWATER MANAGEMENT SYSTEM~~

~~5.1.~~ [Y]-12. Inspections to Ensure Plan Compliance During Construction

. Periodic inspections of the stormwater management system during construction shall be conducted by the staff of the ~~([~~**[local ~~permitting authority)~~jurisdiction]** or conducted and certified by a professional engineer who has been approved by the ~~([~~**[local ~~permitting authority)~~**. ~~Construction inspections~~**jurisdiction]**. Inspections shall ~~utilize~~use the approved stormwater management plan for establishing compliance.

All inspections shall be documented with written reports that contain the following information:

~~(1)~~ (a) The date and location of the inspection;

~~(2)~~ (b) Whether ~~construction~~ the stormwater management system is in compliance with the approved stormwater management plan;

~~(3)~~ (c) Variations from the approved ~~construction specifications~~stormwater management plan; and~~,~~

~~(4)~~ (d) Any other variations or violations of the conditions of the approved stormwater management plan.

~~If any violations are found, the applicant shall be notified in writing of the nature of the violation and the required corrective actions.~~

~~5.2.~~ Section [Y]-13. Final Inspection ~~and As-Built Plans~~

; As-Built Drawings; Delivery of Inspection and Maintenance Agreement. Upon completion of ~~a project, and before a certificate of occupancy shall be granted~~the development, the applicant is responsible for ~~certifying~~:

(a) Certifying that the ~~completed project is in accordance~~stormwater management system is functioning properly and was constructed in conformance with the approved stormwater management plan~~. All applicants are required to submit actual "~~ and associated hydrologic analysis,

(b) Submitting as~~-~~built~~" plans for any stormwater management facilities or practices after final construction is completed. The plan must show~~ drawings showing the final design specifications for all components of the stormwater management ~~facilities and practices and must be~~ system as certified by a ~~Professional Engineer. A~~professional engineer,

(c) Certifying that the landscaping is established and installed in conformance with the BMP landscaping plan, and

(d) Delivering to **[local jurisdiction]** a signed inspection and maintenance agreement that has been recorded by the owner in the property record for all parcel(s) that make up the site.

The required certification under part (a) shall include a certification of volume, or other performance test applicable to the type of stormwater management system component, to ensure each component is functioning as designed and built according to the design specifications in the approved stormwater management plan. This certification and the required performance tests shall be performed by a qualified person and submitted to the **[local jurisdiction]** with the request for a final inspection. The **[local jurisdiction]** shall perform a final inspection ~~by the **(local permitting authority)** is required before the release of any performance securities can occur.~~with applicant to confirm applicant has fulfilled these responsibilities.

~~SECTION 6. ONGOING INSPECTION AND MAINTENANCE OF STORMWATER FACILITIES AND PRACTICES~~

~~**Long-Term**~~Section [Y]-14. Violations and Enforcement. Any violation of the approved stormwater management plan during construction, failure to submit as-built drawings, failure to submit a final BMP landscaping plan, or failure of the final inspection shall constitute and be addressed as violations of, or failures to comply with, the underlying land disturbance permit pursuant to **[insert local ordinance reference]** or the underlying building permit pursuant to **[insert local ordinance reference]**. To address a violation of this Article, the **[local jurisdiction]** shall have all the powers and remedies that are available to it for other violations of building and land disturbance permits, including without limitation the right to issue notices and orders to ensure compliance, stop work orders, and penalties as set forth in the applicable ordinances for such permits.

~~6.1.~~ Section [Y]-15. Maintenance ~~Inspection~~ by Owner of Stormwater ~~Facilities and Practices~~

~~Stormwater management facilities and practices included in a stormwater management plan which are~~Management Systems Predating Current GSMM. For any stormwater management systems approved and built based on requirements predating the current GSMM and that is not otherwise subject to an inspection and maintenance agreement~~ must undergo ongoing inspections to document maintenance and repair needs and ensure compliance with the requirements of the agreement, the plan and this ordinance~~, such stormwater management systems shall be maintained by the owner so that the stormwater management systems perform as they were originally designed.

~~A stormwater management facility or practice shall be inspected on a periodic basis by the responsible person in accordance with the approved inspection and maintenance agreement. In the event that the stormwater management facility has not been maintained and/or becomes a danger to public safety or public health, the **(local permitting authority)** shall notify the person responsible for carrying out the maintenance plan by registered or certified mail to the person specified in the inspection and maintenance agreement. The notice shall specify the measures needed to comply with the agreement and the plan and shall specify the time within which such measures shall be completed. If the responsible person fails or refuses to meet the requirements of the inspection and maintenance agreement, the **(local permitting authority)**, may correct the violation as provided in Subsection 6.4 hereof.~~

~~Inspection programs by the **(local permitting authority)** may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in stormwater management facilities; and evaluating the condition of stormwater management facilities and practices.~~

Section [Y]-16. Inspection and Maintenance Agreements.

(a) The owner shall execute an inspection and maintenance agreement with the **[local jurisdiction]** obligating the owner to inspect, clean, maintain, and repair the stormwater management system; including vegetation in the final BMP landscaping plan. The form of the inspection and maintenance agreement shall be the form provided by the **[local jurisdiction]**. After the inspection and maintenance agreement has been signed by the owner and the **[local jurisdiction]**, the owner shall promptly record such agreement at the owner's cost in the property record for all parcel(s) that make up the site.

(b) The inspection and maintenance agreement shall identify by name or official title the person(s) serving as the point of contact for carrying out the owner's obligations under the inspection and maintenance agreement. The owner shall update the point of contact from time to time as needed and upon request by the **[local jurisdiction]**. Upon any sale or transfer of the site, the new owner shall notify the **[local jurisdiction]** in writing within 30 days of the name or official title of new person(s) serving as the point of contact for the new owner. Any failure of an owner to keep the point of contact up to date shall, following 30 days' notice, constitute a failure to maintain the stormwater management system.

(c) The inspection and maintenance agreement shall run with the land and bind all future successors-in-title of the site. If there is a future sale or transfer of only a portion of the site, then:

(i) The parties to such sale or transfer may enter into and record an assignment agreement designating the owner responsible for each portion of the site and associated obligations under the inspection and maintenance agreement. The parties shall record and provide written notice and a copy of such assignment agreement to the **[local jurisdiction]**.

(ii) In the absence of a recorded assignment agreement, all owners of the site shall be jointly and severally liable for all obligations under the inspection and maintenance agreement regardless of what portion of the site they own.

~~6.2.~~ Section [Y]-17. Right~~-~~ of~~-~~ Entry for ~~Inspection~~

Maintenance Inspections. The terms of the inspection and maintenance agreement shall provide for the ~~**(local permitting authority)** to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when it has a reasonable basis to believe that a violation of this ordinance is occurring or has occurred and to enter when necessary for abatement of a public nuisance or correction of a violation of this ordinance.~~

~~6.3. Records of Maintenance Activities~~

~~Parties responsible for the operation and~~ **[local jurisdiction's]** right of entry for maintenance ~~of a stormwater management facility shall provide records of all~~ inspections and other specified purposes. If a site was developed before the requirement to have an inspection and maintenance ~~and repairs to the **(local permitting authority).**~~

~~6.4. Failure to Maintain~~

~~If a responsible person fails or refuses to meet the requirements of the~~agreement or an inspection and maintenance agreement~~, the **(local permitting authority),** after thirty (30) days written notice (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient), may correct a violation of the design standards or maintenance requirements by performing the necessary work to place the facility or practice in proper working condition. The **(local permitting authority)** may assess the owner(s) of the facility for the cost of repair work which shall be a lien on the property, and may be placed on the ad valorum tax bill for such property and collected in the ordinary manner for such taxes.~~

SECTION 7. VIOLATIONS, ENFORCEMENT AND PENALTIES

Any action or inaction which violates the provisions of this ordinance or the requirements of an approved stormwater management plan or permit, may be subject to the enforcement actions outlined in this Section. Any such action or inaction which is continuous with respect to time is deemed to be a public nuisance and may be abated by injunctive or other equitable relief. The imposition of any of the penalties described below shall not prevent such equitable relief. The imposition of any of the penalties described below shall not prevent such equitable relief.

7.1. Notice of Violation

If the **(local permitting authority)** determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management plan or the provisions of this ordinance, it shall issue a written notice of violation to such applicant or other responsible person. Where a person is engaged in activity covered by this ordinance without having first secured a permit therefor, the notice of violation shall be served on the owner or the responsible person in charge of the activity being conducted on the site.

The notice of violation shall contain:

(5) The name and address of the owner or the applicant or the responsible person;
(6) The address or other description of the site upon which the violation is occurring;
(7) A statement specifying the nature of the violation;
(8) A description of the remedial measures necessary to bring the action or inaction was for any reason not entered into compliance with the permit, the stormwater management plan or this ordinance and the date for the completion of such remedial action;
(9) A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is directed; and,
(10) A statement that the determination of violation may be appealed to the **(local permitting authority)** by filing a written notice of appeal within thirty (30) days after the notice of violation (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient).

7.2. Penalties

In the event the remedial measures described in the notice of violation have not been completed by the date set forth for such completion in the notice of violation, any one or more of the following actions or penalties may be taken or assessed against the person to whom the notice of violation was directed. Before taking any of the following actions or imposing any of the following penalties, the **(local permitting authority)** shall first notify the applicant or other responsible person in writing of its intended action, and shall provide a reasonable opportunity, of not less than ten days (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient) to cure such violation. In the event the applicant or other responsible person fails to cure such violation after such notice and cure period, the **(local permitting authority)** may take any one or more of the following actions or impose any one or more of the following penalties.

~~(vii) **Stop Work Order -** The **(local permitting authority)** may issue a stop work order which shall be served on the applicant or other responsible person. The stop work order shall remain in effect until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation~~, recorded, or has otherwise ~~cured the violation or violations described therein, provided the stop work order may be withdrawn or modified to enable the applicant or other responsible person to take the necessary remedial measures to cure such violation or violations.~~been invalidated or deemed insufficient, then the **[local jurisdiction]** shall have the right to enter and make inspections pursuant to the **[local jurisdiction's]** general provisions for property maintenance inspections pursuant to **[insert reference to existing local ordinance providing for right of entry and inspections for general property maintenance obligations, whether under the local administration procedures for the Georgia Statewide Minimum Construction Codes or other local property maintenance ordinance]**.

~~(1) **Withhold Certificate of Occupancy -** The **(local permitting authority)** may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.~~

~~(2) **Suspension, Revocation or Modification of Permit -** The **(local permitting authority)** may suspend, revoke or modify the permit authorizing the land development project. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated [upon such conditions as the **(local permitting authority)** may deem necessary] to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.~~

~~(3) **Civil Penalties -** In the event the applicant or other responsible person fails to take the remedial measures set forth in the notice of violation or otherwise fails to cure the violations described therein within ten days, or such greater period as the **(local permitting authority)** shall deem appropriate (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient) after the **(local permitting authority)** has taken one or more of the actions described above, the **(local permitting authority)** may impose a penalty not to exceed $1,000 (depending on the severity of the violation) for each day the violation remains unremedied after receipt of the notice of violation.~~

~~(4) **Criminal Penalties -** For intentional and flagrant violations of this ordinance, the **(local permitting authority)** may issue a citation to the applicant or other responsible person, requiring such person to appear in **(appropriate municipal, magistrate or recorders)** court to answer charges for such violation. Upon conviction, such person shall be punished by a fine not to exceed $1,000 or imprisonment for 60 days or both. Each act of violation and each day upon which any violation shall occur shall constitute a separate offense.~~

Section [Y]-18. Owner's Failure to Maintain the Stormwater Management System. The terms of the inspection and maintenance agreement shall provide for what constitutes a failure to maintain a stormwater management system and the enforcement options available to **[local jurisdiction]**. If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then:

(a) An owner's failure to maintain the stormwater management system so that it performs as it was originally designed shall constitute and be addressed as a violation of, or failure to comply with, owner's property maintenance obligations pursuant to **[insert reference to existing local ordinance on violations of general property maintenance obligations, whether under the local administration procedures for the Georgia Statewide Minimum Construction Codes or other local property maintenance ordinance]** and

(b) To address such a failure to maintain the stormwater management system, the **[local jurisdiction]** shall have all the powers and remedies that are available to it for other violations of an owner's property maintenance obligations, including without limitation prosecution, penalties, abatement, and emergency measures.

Blue Highlight – Part of new Model Ordinance without an applicable section in existing codes
Yellow Highlight – Dunwoody-specific code references.

DIVISION 5. - STORMWATER MANAGEMENT

~~Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment.~~

Sec. 16-91. – ~~General~~Post-Construction Stormwater Management for New Development and Redevelopment.

(a) *Purpose and Intent.* The regulations of this division are adopted to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-~~development~~ construction stormwater runoff and nonpoint source pollution associated with new development and redevelopment. ~~It has been determined that p~~Proper management of post-~~development~~ construction stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, environment and general welfare of the public, and protect water and aquatic resources. ~~These regulations seek to meet that purpose through the following objectives:~~ Additionally, the City of Dunwoody is required to comply with several State and Federal laws, regulations and permits and the requirements of the Metropolitan North Georgia Water Planning District's regional water plan related to managing the water quantity, velocity, and quality of post-construction stormwater run-off.

~~(1) Establish decision-making processes surrounding land development activities that protect the integrity of the watershed and preserve the health of water resources;~~

~~(2) Require that new development and redevelopment maintain the predevelopment hydrologic response in their post-development state as nearly as practicable in order to reduce flooding, streambank erosion, nonpoint source pollution and increases in stream temperature, and maintain the integrity of stream channels and aquatic habitats;~~

~~(3) Establish minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;~~

~~(4) Establish design and application criteria for the construction and use of structural stormwater control facilities that can be used to meet the minimum post-development stormwater management standards;~~

~~(5) Encourage the use of nonstructural stormwater management and stormwater better site design practices, such as the preservation of greenspace and other conservation areas, to the maximum extent practicable;~~

~~(6) Establish provisions for the long-term responsibility for and maintenance of structural stormwater control facilities and nonstructural stormwater management practices to ensure that they continue to function as designed, are maintained, and pose no threat to public safety; and~~

~~(7) Establish administrative procedures for the submission, review, approval and disapproval of stormwater management plans, and for the inspection of approved active projects, and long-term follow up.~~

~~(b) *Definitions*. For this division, the terms below have the following meanings:~~

~~"~~Other terms used but not defined in this division shall be interpreted based on how such terms are defined and used in the GSMM and the CITY OF DUNWOODY'S MS4 Permit.

(b~~c~~) Adoption and Implementation of the GSMM

Commented [KD1]: Definitions from previous model ordinance were left out of this section – leave out again, or include?
*Note kept in separate section…Article VI Div. 2

Commented [CT2R2]: I think as long as the definitions are somewhere referenced in the ordinance, I wouldn't be too concerned. If its in another section of the code, that's fine.

Commented [KD3R2]: Moved to Division 2 (Section 16-301).

(1) *Georgia Stormwater Management ~~m~~Manual.* The City of Dunwoody must use and require compliance with all relevant ~~All land development in the city must comply with the~~ criteria, ~~technical~~ specifications, calculations, formulas, methods,~~and~~ design standards, and other guidance provided in ~~of~~ the Georgia Stormwater Management Manual and its appendices, as may be hereafter amended. The rainfall intensities used in hydrologic and hydraulic computations must be those published in the Georgia Stormwater Management Manual (GSMM).

(2) This division is not intended to modify or repeal any other Article, ordinance, rule, regulation or other provision of law, including but not limited to any applicable stream buffers under state and local laws, and the Georgia Safe Dams Act and Rules for Dam Safety~~[regulations]~~. In the event of any conflict or inconsistency between any provision in the City of Dunwoody's MS4 permit and this division, the provision from the MS4 permit shall control. In the event of any conflict or inconsistency between any provision of this division and the GSMM, the provision in this division shall control. In the event of any other conflict or inconsistency between this division and any other regulation, the provision that is more restrictive or imposes higher protective standards for human health or the environment shall control.

(3) If any provision of this division is invalidated by a court of competent jurisdiction, such judgement shall not affect or invalidate the remainder of this division.

(4) *Designation of administrator.* The City Manager may from time to time appoint someone to administer and implement this division.

(c~~d~~) *Applicability Criteria for Stormwater Management Standards.* The stormwater management regulations of this division ~~apply to all land development activities that meet one or more of the following criteria~~applies to the following activities:

(1) New development that involves the creation, addition ~~or replacement~~ of 5,000 square feet or more of new impervious ~~cover~~ surface area or that involves other land ~~development~~ disturbing activities of one acre or more;

(2) Redevelopment (excluding routine maintenance and exterior remodeling) that creates, adds, or replaces 5,000 square feet or more of new impervious surface area or that involves land disturbing activity of 1 acre or more;

(3) New ~~Land~~ development and redevelopment if

a. such new development or redevelopment is part of a subdivision or other common plan of development, **and**

b. the sum of all associated impervious surface area or land disturbing activities meets or exceeds ~~that are smaller than the minimum~~ applicability criteria of paragraphs (1) ~~or~~**and** (2)~~,~~ above~~, if such activities are part of a larger common plan of development, even though multiple, separate and distinct land development activities may take place at different times on different schedules.~~;

(4~~2~~) Any commercial or industrial new development or redevelopment, regardless of size, that ~~meets the definition of a stormwater~~ is a hotspot land use as defined in this division; and~~, as determined by the community development director; or~~

(5) Linear transportation projects that exceed the threshold in paragraphs (1) **or** (2) above.

(d~~e~~) *Exemptions ~~and waivers~~from Stormwater Management Standards.*

~~(1)~~ The following activities are exempt from the stormwater management requirements of this division:

(1) Land disturbing activity conducted by local, state, authority, or federal agencies solely to respond to an emergency need to protect life, limb, or property or conduct emergency repairs.

Commented [KD4]: Reference to stream buffer → 16-94 Performance Criteria
Reference to dams → 16-91(e)(1)

(2) Land disturbing activity that consists solely of cutting a trench for utility work and related pavement replacement;

(3) Land disturbing activity conducted by local, state, authority, or federal agencies whose sole purpose is to implement stormwater management or environmental restoration;

~~a.a. Individual single-family or duplex residential lots that are not part of a subdivision or phased development project;~~

~~b. Additions or modifications to existing single-family or duplex residential structures;~~

(4)~~c.~~ Agricultural practices as described O.C.G.A. 12-7-17(5) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in 16-91(c)(1) or 16-91(c)(-2);.

(5) ~~or s~~Silvicultural land management activities as described in O.C.G.A. 12-7-17(6) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in ~~IV-5~~ 16-91(c)(1a) or 16-91(c)(2b).; ~~and~~

(6)~~d.~~ Repairs to any stormwater management facility or practice deemed necessary by the community development director, or designee;

(7) Installations or modifications to existing structures solely to implement Americans with Disabilities Act (ADA) requirements, including but not limited to elevator shafts, handicapped access ramps and parking, and enlarged entrances or exists; and

(8) Linear transportation projects being constructed by the City of Dunwoody to the extent the administrator determines that the stormwater management standards may be infeasible to apply, all or in part, for any portion of the linear transportation project. For this exemption to apply, an infeasibility report that is compliant with the City of Dunwoody linear feasibility program shall first be submitted to the administrator that contains adequate documentation to support the evaluation for the applicable portion(s) and any resulting infeasibility determination, if any, by the administrator.

(2) ~~If 50 percent or less of a site is to be redeveloped, stormwater requirements must be met for the redeveloped area only and the non-disturbed area will be treated as pre-developed prior to the redevelopment. But if more than 50 percent of the site is to be redeveloped, then the entire site must meet all stormwater requirements.~~

(e~~f~~) Stormwater Management Standards. Subject to the applicability criteria in Sec. 16-91(c) and exemptions in Sec. 16-91(d), the following standards apply.

(1) Design of Stormwater Management System: The design of the stormwater management system shall be in accordance with the applicable sections of the GSMM as directed by the community development director, or designee. Any design which proposes a dam shall comply with the Georgia Safe Dams Act and Rules for Dam Safety as applicable.

(2) Natural Resources Inventory: Site reconnaissance and surveying techniques shall be used to complete a thorough assessment of existing natural resources, both terrestrial and aquatic, found on the site. Resources to be identified, mapped, and shown on the Stormwater Management Plan, shall include, at a minimum (as applicable):

a. Topography (min. of 2-foot contours) and Steep Slopes (slopes >15%)

b. Natural drainage Divides and Patterns

c. Natural drainage features (e.g., swales, basins, depressed areas)

d. Natural feature protection and conservation areas (such as wetlands, lakes, ponds, floodplains, stream buffers, drinking water wellhead protection areas and river corridors).

e. Predominant soils (including erodible soils and karst areas), and

Commented [KD5]: Not included as an exemption in the new model ordinance. Former version location: 1.2(A)2(a-d)

Commented [CT6]: Added "or designee" to all applicable sections

Commented [KD7]: Is this from the GSMM guidance? ARC sustainability practice?

Commented [CT8R8]: That was a requirement in the last version of the model ordinance. It's been removed.

f. Existing, predominant vegetation including trees, high quality habitat and other existing vegetation.

(3) Better Site Design Practices for Stormwater Management. Stormwater Management Plans shall preserve the natural drainage and treatment systems and reduce the generation of additional stormwater runoff and pollutants to the maximum extent practicable.

(4) Stormwater Runoff Quality/Reduction:

a. For development with a stormwater management plan submitted before December 6, 2020, the applicant may choose either (A) Runoff Reduction or (B) Water Quality.

b. For development with a stormwater management plan submitted on or after December 6, 2020, the applicant shall choose (A) Runoff Reduction and additional water quality shall not be required. To the extent (A) Runoff Reduction has been determined to be infeasible for all or a portion of the site using the Practicability Policy, then (B) Water Quality shall apply for the remaining runoff from a 1.2 inch rainfall event and must be treated to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM.

(A) Runoff Reduction – The Stormwater management system shall be designed to retain the first 1.0inch of rainfall on the site using runoff reduction methods to the maximum extent practicable.

(B) Water Quality – The stormwater management system shall be designed to remove at least 80% of the calculated average annual post-development TSS load from a 1.2 inch rainfall event, or equivalent as defined in the GSMM.

c. If a site is determined to be a hotspot, the City of Dunwoody may require the use of specific or additional components for the stormwater management system to address pollutants of concern generated by that site.

(5) Stream Channel Protection: Stream channel protection shall be provided by using all of the following three approaches: ~~listed in Sec. 16-94(2)?.~~

~~a. Protection of stream channels from bank and bed erosion and degradation must be provided by using all of the following three approaches:~~

a~~1~~. Preservation, restoration and/or reforestation (with native vegetation) of the applicable stream buffer;

b2. 24-hour extended detention storage of the one-year, 24-hour return frequency storm event; and

c3. Erosion prevention measures such as energy dissipation and velocity control.

(6) *Overbank flooding protection.* Downstream overbank flood and property protection must be provided by controlling (attenuating) the post-development peak discharge rate to the pre-development rate for the 25-year, 24-hour storm event.

(7) *Extreme flooding protection.* Extreme flood and public safety protection must be provided by controlling the 100-year, 24-hour storm event such that flooding is not exacerbated.

(8) *Downstream analysis.* Due to peak flow timing and runoff volume effects, some structural components of the stormwater management system fail to reduce discharge peaks to pre-development levels downstream of the site. A downstream peak flow analysis must be provided to the point in the watershed downstream of the site or the stormwater management downstream from the project to a point in the drainage basin where the project area is ten percent of the total basin area (GSMM, Section 3.1.9). This is to help ensure that there are minimal downstream impacts from development on the site. The

Commented [KD9]: Formerly Section 16-94(2) Performance Criteria

Commented [KD10]: Formerly section 16-94(3) Performance Criteria

Commented [KD11]: Formerly section 16-94(4) Performance Criteria

Commented [KD12]: Formerly 16-92(f)

downstream analysis may result in the need to resize structural components of the stormwater management system. In calculating runoff volumes and discharge rates, consideration may need to be given to any planned future upstream land use changes.

(9) *Stormwater Management System Inspection and Maintenance*. The components of the stormwater management system that will not be dedicated to and accepted by the City of Dunwoody, including all drainage facilities, best management practices, credited conservation spaces, and conveyance systems, shall have an inspection and maintenance agreement to ensure that they continue to function as designed. All new development and redevelopment sites are to prepare a comprehensive inspection and maintenance agreement for the on-site stormwater management system. This plan shall be written in accordance with the requirements in Sec. 16-92.

(~~e~~f) *Information required with land development permit applications.* Except as otherwise expressly exempted, land development permit applications must be accompanied by the following information:

(1) Stormwater management plan in accordance with ~~section~~ Sec. 16-92;

(2) Performance bond, if applicable; and

(3) Applicable permit application and plan review fees.

(Ord. No. 2013-10-14, 1(Exh. A § 16-7.10), 10-14-2013; Ord. No. 2015-01-04, § 1, 1-26-2015)

Sec. 16-92. - Pre-Submittal Meeting, Stormwater Concept Plan, and Stormwater Management Plan Requirements.~~Stormwater management plans.~~

(a) Before a land development permit application is submitted, an applicant may request a pre-submittal meeting with the City of Dunwoody. The pre-submittal meeting should take place based on an early step in the development process such as before site analysis and inventory (GSMM Section 2.4.2.4) or the stormwater concept plan (GSMM Section 2.3.2.5). The purpose of the pre-submittal meeting is to discuss opportunities, constraints, and ideas for the stormwater management system before formal site design engineering. To the extent applicable, local and regional watershed plans, greenspace plans, trails and greenway plans, and other resource protection plans should be consulted in the pre-submittal meeting. Applicants must request a pre-submittal meeting with the City of Dunwoody when applying for a Determination of Infeasibility through the Practicability Policy. ~~*General.* Stormwater management plans must identify how post-development stormwater runoff will be controlled or managed and how the proposed project will meet all applicable requirements of this division. Plans must be submitted with the stamp and signature of a professional engineer (PE) licensed in the State of Georgia, who must verify that the design of all stormwater management facilities and practices meet the submittal requirements outlined in the stormwater design manual.~~

(b) The stormwater concept plan shall be prepared using the minimum following steps:

(1) Develop the site layout using better site design techniques, as applicable (GSMM Section 2.3).

(2) Calculate preliminary estimates of the unified stormwater sizing criteria requirements for stormwater runoff quality/reduction, channel protection, overbank flooding protection and extreme flooding protection (GSMM Section 2.2).

(3) Perform screening and preliminary selection of appropriate best management practices and identification of potential siting locations (GSMM Section 4.1).

(c) The stormwater concept plan shall contain:

(1) Common address and legal description of the site,

(2) Vicinity Map, and

Commented [KD13]: Make sure we have one in place when adopting Model Ordinance language.

Commented [CT14R14]: Draft RRv Practicability Policy is not expected to be approved by GAEPD until late May-early June. I copied you on an email from Katherine with MNGWPD last week for more details.

(3) Existing conditions and proposed site layout mapping and plans (recommended scale of 1"=50'), which illustrate at a minimum:

a. Existing and proposed topography (minimum of 2-foot contours.

b. Perennial and intermittent streams,

c. Mapping of predominant soils from USDA soil surveys

d. Boundaries of existing predominant vegetation and proposed limits of clearing and grading,

e. Location and boundaries of other natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.)

f. Location of existing and proposed roads, buildings, parking areas and other impervious surfaces,

g. Existing and proposed utilities (e.g., water, sewer, gas, electric) and easements,

h. Preliminary estimates of unified stormwater sizing criteria requirements,

i. Preliminary selection and location, size and limits of disturbance of proposed BMPs,

j. Location of existing and proposed conveyance systems such as grass channels, swales, and storm drains,

k. Flow paths

l. Location of the boundaries of the base flood floodplain, future-conditions floodplain, and the floodway (as applicable) and relationship of site to upstream and downstream properties and drainage, and

~~a.~~m. Preliminary location and dimensions of proposed channel modifications, such as bridge or culvert crossings.

(~~d~~b) ~~*Information required.*~~The stormwater management plan shall contain the items listed in this part and be prepared under the direct supervisory control of either a registered Professional Engineer (PE) or a registered Landscape Architect licensed in the state of Georgia. Items (3), (4), (5) and (6) shall be sealed and signed by a registered PE licensed in the state of Georgia. The overall site plan must be stamped by a design professional licensed in the State of Georgia for such purpose (GSMM Section 2.4.2.7). ~~must ensure compliance with the requirements and criteria in this division and that opportunities are being taken to minimize adverse post-development stormwater runoff impacts from the development. The plan must consist of maps, narrative, and supporting design calculations (hydrologic and hydraulic) for the proposed stormwater management system. The plan must include all information required by the stormwater management site plan checklist of the stormwater design manual, including all of the following:~~

(1) Natural Resource Inventory

(2) Stormwater Concept Plan

~~(1) Common address and legal description of site;~~

~~(2) Vicinity map;~~

(3) Existing conditions hydrologic analysis

~~(see subsection (c));~~

(4) Post-development hydrologic analysis ~~(see subsection (d));~~

(5) Stormwater management system design ~~(see subsection (e));~~

(6) ~~Post-development~~ Ddownstream analysis ~~(see subsection (f));~~

(7) ~~Construction-phase E~~erosion and sedimentation control plan ~~(see subsection (g));~~

(8) BMP Landscaping ~~and open space~~ plan ~~(see subsection (h));~~

~~(9) Operations and maintenance plan (see subsection (i));~~

~~(10) Maintenance access easements (see subsection (j));~~

(9~~11~~) Inspection and maintenance agreement~~s (see subsection (k));~~

(10~~12~~) Evidence of acquisition of applicable local and non-local permits ~~(see subsection (l));~~

(11~~13~~) Determination of Infeasibility (if applicable)

~~(12) Any proposed off-site facilities (see subsection (m)).~~

~~(c) *Existing conditions hydrologic analysis.*~~

~~(1) The existing conditions hydrologic analysis for stormwater runoff rates, volumes, and velocities must include all of the following:~~

~~a. A topographic map of existing site conditions with the drainage basin boundaries indicated;~~

~~b. Acreage, soil types and land cover of areas for each subbasin affected by the project;~~

~~c. All perennial and intermittent streams and other surface water features;~~

~~d. All existing stormwater conveyances and structural control facilities;~~

~~e. Direction of flow and exits from the site;~~

~~f. Analysis of runoff provided by off-site areas upstream of the project site; and~~

~~g. Methodologies, assumptions, site parameters and supporting design calculations used in analyzing the existing conditions site hydrology.~~

(2~~e~~) For redevelopment sites, predevelopment conditions must be modeled using the established guidelines for the portion of the site undergoing land development activities. For redevelopment and to the extent existing stormwater management structures are being used to meet stormwater management standards, the following must also be included in the stormwater management plan for existing stormwater management structures:

(1) As-built drawings

(2) Hydrology Reports

(3) Current inspection of existing stormwater management structures with deficiencies noted

(4) BMP Landscaping Plan

~~sites, predevelopment conditions must be modeled using the established guidelines for the portion of the site undergoing land development activities.~~

Sec~~tion .[Y]-9~~16-93 – Application Fee.

(a) The fee for review of any land development application shall be based on the fee structure established by the City of Dunwoody, and payment shall be made before the issuance of any land disturbance permit or building permit for the development.

Sec~~tion~~. ~~[Y]-10~~16-94 – Application Procedures.

(a) Land development applications are handled as part of the process to obtain the land disturbance permit pursuant to Sec. 16-60 or building permit Sec. 16-29, as applicable. Before any person begins development on a site, the owner of the site shall first obtain approval in accordance with the following procedure:

(ba) File a land development application with the City of Dunwoody on the City's form of application with the following supporting materials:

(1) the stormwater management plan prepared in accordance with Sec. 16-92(d).

(2) a certification that the development will be performed in accordance with the stormwater management plan once approved,

(3) a Preliminary Determination of Infeasibility, as applicable, prepared in accordance with the practicability policy, and

(4) an acknowledgement that the applicant has reviewed the City of Dunwoody's form of inspection and maintenance agreement and that applicant agrees to sign and record such inspection and maintenance agreement before the final inspection.

(cb) The administrator shall inform the applicant whether the application and supporting materials are approved or disapproved.

(dc) If the application and supporting materials are approved, the City of Dunwoody may issue the associated land disturbance permit or building permit, provided all other legal requirements for the issuance of such permits have been met. The stormwater management plan included in such applications becomes the approved stormwater management plan.

Section .[Y]-1116-95. Compliance with the Approved Stormwater Management Plan.

(a) All development shall be:

(1) consistent with the approved stormwater management plan and all applicable land disturbance and building permits, and

(2) conducted only within the area specified in the approved stormwater management plan.

(b) No changes may be made to an approved stormwater management plan without review and advanced written approval by the administrator.

~~(d) *Post-development hydrologic analysis.* The post-development hydrologic analysis for stormwater runoff rates, volumes, and velocities must include all of the following:~~

~~(1) A topographic map of developed site conditions with the post-development drainage basin boundaries indicated;~~

~~(2) Total area of post-development impervious surfaces and other land cover areas for each subbasin affected by the project;~~

~~(3) Calculations for determining the runoff volumes that need to be addressed for each subbasin for the development project to meet the post-development stormwater management performance criteria in section 16-94;~~

~~(4) Location and boundaries of proposed natural feature protection and conservation areas;~~

~~(5) Documentation and calculations for any applicable site design credits that are being utilized;~~

~~(6) Methodologies, assumptions, site parameters and supporting design calculations used in analyzing the existing conditions site hydrology.~~

~~(e) *Stormwater management system.* The description, scaled drawings and design calculations for the proposed post-development stormwater management system must include all of the following:~~

~~(1) A map and/or drawing or sketch of the stormwater management facilities, including the location of nonstructural site design features and the placement of existing and proposed structural stormwater controls, including design water surface elevations, storage volumes available from zero~~

to maximum head, location of inlet and outlets, location of bypass and discharge systems, and all orifice/restrictor sizes;

(2) A narrative describing how the selected structural stormwater controls will be appropriate and effective;

(3) Cross-section and profile drawings and design details for each of the structural stormwater controls in the system, including supporting calculations to show that the facility is designed according to the applicable design criteria;

(4) A hydrologic and hydraulic analysis of the stormwater management system for all applicable design storms (including stage-storage or outlet rating curves, and inflow and outflow hydrographs);

(5) Documentation and supporting calculations to show that the stormwater management system adequately meets the post-development stormwater management performance criteria in section 16-94;

(6) Drawings, design calculations, elevations and hydraulic grade lines for all existing and proposed stormwater conveyance elements including stormwater drains, pipes, culverts, catch basins, channels, swales and areas of overland flow; and

(7) Where applicable, a narrative describing how the stormwater management system corresponds with any watershed protection plans and/or local greenspace protection plan.

(f) *Post-development downstream analysis.* A downstream peak flow analysis must include the assumptions, results and supporting calculations to show safe passage of post-development design flows downstream. The analysis of downstream conditions in the report must address each and every point or area along the project site's boundaries at which runoff will exit the property. The analysis must focus on the portion of the drainage channel or watercourse immediately downstream from the project. This area must extend downstream from the project to a point in the drainage basin where the project area is ten percent of the total basin area. In calculating runoff volumes and discharge rates, consideration may need to be given to any planned future upstream land use changes. The analysis must be in accordance with the Georgia Stormwater Management Manual. The capacity of the drainage systems must be analyzed to the ten percent point.

Commented [KD15]: Edited and Moved language 16-91(g)(8) Downstream Analysis under Stormwater Mgmt Standards section.

(g) *Construction-phase erosion and sedimentation control plan.* An erosion and sedimentation control plan in accordance with the Georgia Erosion and Sedimentation Control Act or NPDES permit for construction activities. The plan must also include information on the sequence/phasing of construction and temporary stabilization measures and temporary structures that will be converted into permanent stormwater controls.

(h) *Landscaping and open space plan.* A detailed landscaping and vegetation plan describing the woody and herbaceous vegetation that will be used within and adjacent to stormwater management facilities and practices. The landscaping plan must also include:

(1) The arrangement of planted areas, natural and greenspace areas and other landscaped features on the site plan;

(2) Information necessary to construct the landscaping elements shown on the plan drawings;

(3) Descriptions and standards for the methods, materials and vegetation that are to be used in the construction;

(4) Density of plantings;

(5) Descriptions of the stabilization and management techniques used to establish vegetation; and

(6) A description of who will be responsible for ongoing maintenance of vegetation for the stormwater management facility and what practices will be employed to ensure that adequate vegetative cover is preserved.

(i) *Operations and maintenance plan.* This plan must include a detailed description of ongoing operations and maintenance procedures for stormwater management facilities and practices to

~~ensure their continued function as designed and constructed or preserved. They must identify the parts or components of a stormwater management facility or practice that need to be regularly or periodically inspected and maintained, and the equipment and skills or training necessary. The plan must include an inspection and maintenance schedule, maintenance tasks, responsible parties for maintenance, funding, access and safety issues. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures must be included in the plan.~~

~~(j) *Maintenance access easements.*~~

~~(1) The applicant must ensure access from public right-of-way to stormwater management facilities and practices requiring regular maintenance at the site for the purpose of inspection and repair by securing all the maintenance access easements needed on a permanent basis. Such access must be sufficient for all necessary equipment for maintenance activities. Upon final inspection and approval, a plat or document indicating that such easements exist must be recorded and must remain in effect even with the transfer of title of the property.~~

~~(2) The access easement to the facility may not have a profile slope steeper than 33 percent and a cross slope of no more than ten percent. The elevation of the maintenance easement around the facility must be established at the top of the dam or wall elevation and be constructed with a cross slope of no more than ten percent to the drainage facility. Fencing that complies with the requirement section 16-93 must be constructed on the outside edge of the maintenance easement. Gates that comply with the requirements of section 16-93 must be constructed on each maintenance easement.~~

~~(k)~~Section 16-963. *Inspection and maintenance agreement~~s~~.*

(a) The owner shall execute an inspection and maintenance agreement with City of Dunwoody obligating the owner to inspect, clean, maintain, and repair the stormwater management system; including vegetation in the final BMP landscaping plan. The form of the inspection and maintenance agreement shall be the form provided by the City of Dunwoody. After the inspection and maintenance agreement has been signed by the owner and the City of Dunwoody, the owner shall promptly record such agreement at the owner's cost in the property record for all parcels that make up the site.

(b) The inspection and maintenance agreement shall identify by name or official title the person(s) serving as the point of contact for carrying out the owner's obligations under the inspection and maintenance agreement. The owner shall update the point of contact from time to time as needed and upon request by the City of Dunwoody. Upon any sale or transfer of the site, the new owner shall notify the City of Dunwoody in writing within 30 days of the name of official title of the new person(s) serving as the point of contact for the new owner. Any failure of an owner to keep the point of contact up to date shall, following 30 days' notice, constitute a failure to maintain the stormwater management system.

(c) The inspection and maintenance agreement shall run with the land and bind all future successors-in-title of the site. If there is a future sale or transfer of only a portion of the site, then:

(1~~x~~) The parties to such sale or transfer may enter into and record an assignment agreement designating the owner responsible for each portion of the site and associated obligations under the inspection and maintenance agreement. The parties shall record and provide written notice and a copy of such assignment agreement to the City of Dunwoody.

(~~xx~~2) In the absence of a recorded assignment agreement, all owners of the site shall be jointly and severally liable for all obligations under the inspection and maintenance agreement regardless of what portion of the site they own.

(3~~1~~) Unless an on-site stormwater management facility or practice is dedicated to and accepted by the city, the applicant must execute an inspection and maintenance agreement, and/or a conservation easement, if applicable, that is ~~be~~ binding on all subsequent owners of the site. The inspection and maintenance agreement, if applicable, must be approved by the city prior to plan approval, and recorded in the deed records upon final plat approval.

(42) The inspection and maintenance agreement must identify by name or official title the persons responsible for carrying out the inspection and maintenance. Responsibility for the operation and maintenance of the stormwater management facility or practice, unless assumed by a governmental agency, will remain with the property owner and will pass to any successor owner. If portions of the land are sold or otherwise transferred, legally binding arrangements must be made to pass the inspection and maintenance responsibility to the appropriate successors in title. These arrangements must designate for each portion of the site, the person to be permanently responsible for its inspection and maintenance.

(53) As part of the inspection and maintenance agreement, a schedule must be developed for when and how often routine inspection and maintenance will occur to ensure proper function of the stormwater management facility or practice. The agreement must also include plans for annual inspections to ensure proper performance of the facility between scheduled maintenance and include remedies for the default thereof.

(64) The city, in lieu of an inspection and maintenance agreement, may accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this division and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

~~(l) *Evidence of acquisition of applicable local and non-local permits.* The applicant must certify and provide documentation to the (local permitting authority) that all other applicable environmental permits have been acquired for the site prior to approval of the stormwater management plan.~~

~~(m) *Off-site facilities.*~~

~~(1) The stormwater management plan for each land development project must provide for stormwater management measures located on the site of the project, unless provisions are made to manage stormwater by an off-site or regional facility. The off-site or regional facility must be located on property legally dedicated for the purpose, must be designed and adequately sized to provide a level of stormwater quantity and quality control that is equal to or greater than that which would be afforded by on-site practices and there must be a legally-obligated entity responsible for long-term operation and maintenance of the off-site or regional stormwater facility. In addition, on-site measures must be implemented, where necessary, to protect upstream and downstream properties and drainage channels from the site to the off-site facility.~~

~~(2) A stormwater management plan showing the adequacy of the off-site or regional facility must be submitted to the community development director.~~

~~(3) To be eligible for a modification, the applicant must demonstrate to the satisfaction of the city that the use of an off-site or regional facility will not result in any of the following impacts to upstream or downstream areas:~~

~~a. Increased threat of flood damage to public health, life, and property;~~

~~b. Deterioration of existing culverts, bridges, dams, and other structures;~~

~~c. Accelerated streambank or streambed erosion or siltation;~~

~~d. Degradation of in-stream biological functions or habitat; or~~

~~e. Water quality impairment in violation of state water quality standards, and/or violation of any state or federal regulations.~~

(Ord. No. 2013-10-14, 1(Exh. A § 16-7.20), 10-14-2013; Ord. No. 2015-01-04, § 1, 1-26-2015)

Sec. 16-974~~3~~. - Design.

(a) *Detention designs.* Detention designs may be rejected if they incorporate structures and facilities that will demand considerable maintenance or will be difficult to maintain or will utilize numerous small structures if other alternatives are physically possible.

(b) *Discharge velocities.* Discharge velocities from detention facilities must be reduced to provide a nonerosive velocity flow from a structure, channel, or other control measure as set forth in the approved Georgia Stormwater Management Manual.

(c) *Design storm.* The drainage system being developed must have adequate capacity to accommodate the flow from all upstream areas for a 100-year storm event.

(d) *Drainage outfalls.* The drainage system from a proposed development must discharge into an outfall that has adequate capacity to accommodate the runoff from the development. If the connecting downstream system is not able to accommodate the allowable design flow from the site, then the design engineer must design on-site drainage facilities that result in no exacerbation of existing downstream conditions.

(e) *Detention storage.*

(1) The live detention storage to be provided must be calculated on the basis of the 100-year frequency rainfall as published in the Georgia Stormwater Management Manual. The detention system must be adequate for the runoff of a 100-year rainfall, for any and all durations from the post-development, with a release rate that does not exceed the pre-development release rate during the same duration storm. Detention control structures and other drainage improvements must be located and designed to prevent erosion damage to adjacent property owners.

(2) Detention and sedimentation control facilities may not be placed in any of the following:

a. Transitional buffer zones as defined by the city zoning ordinance.

b. Floodplains.

c. Wetlands.

d. Stream buffer zones.

e. State buffer zones.

(3) Perforated standpipes or a French drain, in accordance with published design standards available from the community development ~~director, designee~~department, or other methods which will achieve equal performance to prevent standing water and inadequate drainage, must be installed within all the detention and sedimentation control facilities.

(f) *Combined detention.* When the applicant requests and the community development director, or designee, determines that development and construction projects are too small, or that engineering and economic factors make combined detention or other stormwater management facilities more practical, the city may authorize the joint construction of these facilities to serve two or more properties by two or more applicants.

(g) *Fencing.*

(1) Permanent fencing at least four feet in height is required around all stormwater and sedimentation control facilities designed for temporary storage of stormwater if they have a water storage depth of greater than four feet or they are designated by the city or board of health as a public health hazard.

(2) Required fencing must be designed, installed and maintained to allow the free flow of runoff and sediment into the facility. Fencing must be established on the outside edge of a facility. The fence must include a gate of sufficient size to permit entrance of equipment necessary to allow periodic maintenance activities. The gate must be placed in a manner such that the gate does not obstruct reasonable access or become obstructive. The community development director, or designee, may waive fencing in nonresidential areas where a pond is more than 500 feet from a residential zoning district and in residential zoning

districts when detention is provided in natural areas such as stream channels and fencing in the opinion of the community development director, or designee, would damage the environment or affect stream flow.

(h) *Special flood hazard area elevation contours.* In residential districts, not less than 70 percent of the minimum lot area, as established by applicable zoning district development standards, must be above the special flood hazard area elevation contours with the exception that lots in the R-150 district must conform to requirements of the R-100 district.

(i) *Street centerline elevations.* The profile elevation of the centerline of all public streets must be constructed a minimum of one foot above special flood hazard area elevation contours. The community development director, or designee, may grant exceptions to this provision in cases where construction of the street elevation is within a special flood hazard area and elevation contours would improve drainage or reduce the effects of flooding.

(Ord. No. 2013-10-14, 1(Exh. A § 16-7.30), 10-14-2013; Ord. No. 2015-01-04, § 1, 1-26-2015)

~~. Downstream overbank flood and property protection must be provided by controlling (attenuating) the post-development peak discharge rate to the predevelopment rate for the 25-year, 24-hour return frequency storm event. If control of the one-year, 24-hour storm is exempted, then peak discharge rate attenuation of the two-year through the 25-year return frequency storm event must be provided.~~

Commented [KD16]: Moved language to 16-91(g)(6)

~~(4) *Extreme flooding protection.* Extreme flood and public safety protection must be provided by controlling and safely conveying the 100-year, 24-hour return frequency storm event such that flooding is not exacerbated.~~

Commented [KD17]: Moved language to 16-91(g)(7)

~~(5) *Structural stormwater controls.* All structural stormwater management facilities must be selected and designed using the appropriate criteria from the Georgia Stormwater Management Manual. All structural stormwater controls must be designed appropriately to meet their intended function. For other structural stormwater controls not included in the Georgia Stormwater Management Manual, or for which pollutant removal rates have not been provided, the effectiveness and pollutant removal of the structural control must be documented through prior studies, literature reviews, or other means and receive approval from the community development director before being included in the design of a stormwater management system. In addition, if hydrologic or topographic conditions, or land use activities warrant greater control than that provided by the minimum control requirements, the community development director may impose additional requirements deemed necessary to protect upstream and downstream properties and aquatic resources from damage due to increased volume, frequency, and rate of stormwater runoff or increased nonpoint source pollution loads created on the site in question. Applicants must consult the Georgia Stormwater Management Manual for guidance on the factors that determine site design feasibility when selecting and locating a structural stormwater control.~~

~~(6) *Stormwater credits for nonstructural measures.* The use of one or more site design measures by the applicant may allow for a reduction in the water quality treatment volume required under subsection (1). The applicant may, if approved by the community development director, take credit for the use of stormwater better site design practices and reduce the water quality volume requirement. For each potential credit, thereis a minimum set of criteria and requirements which identify the conditions or circumstances under which the credit may be applied. The site design practices that qualify for this credit and the criteria and procedures for applying and calculating the credits are identified in the Georgia Stormwater Management Manual.~~

~~(7) *Drainage system guidelines.* Stormwater conveyance facilities, which may include culverts, stormwater drainage pipes, catch basins, drop inlets, junction boxes, headwalls, gutter, swales, channels, ditches, and energy dissipaters must be provided when necessary for the protection of public right-of-way and private properties adjoining project sites and/or public right-of-ways. Stormwater conveyance facilities that are designed to carry runoff from more than one parcel, existing or proposed, must meet the following requirements:~~

~~a. Methods to calculate stormwater flows must be in accordance with the stormwater design manual;~~

b. All culverts, pipe systems and open channel flow systems must be sized in accordance with the stormwater management plan using the methods included in the stormwater design manual; and,

c. Design and construction of stormwater conveyance facilities must be in accordance with the criteria and specifications found in the stormwater design manual.

(8) *Dam design guidelines.* Any land-disturbing activity that involves a site that proposes a dam must comply with the Georgia Safe Dams Act and Rules for Dam Safety, as applicable.

(Ord. No. 2013-10-14, 1(Exh. A § 16-7.40), 10-14-2013; Ord. No. 2015-01-04, § 1, 1-26-2015)

Sec. 16-985. - Inspections and maintenance.

(a) Inspections to Ensure Compliance Dduring Cconstruction.

(1) Periodic inspections of the stormwater management system during construction must be conducted by the community development department or conducted and certified by a professional engineer approved by the community development director, or designee. Construction iInspections must utilize use the approved stormwater management plan for establishing compliance. All inspections must be documented with written reports that contain the following information:

a. The date and location of the inspection;

b. Whether construction the stormwater management system is in compliance with the approved stormwater management plan;

c. Variations from the approved construction specificationsstormwater management plan; and

d. Any other variations or violations of the conditions of the approved stormwater management plan.

(2)If any violations are found, the applicant must be notified in writing of the nature of the violation and the required corrective actions.

(b) Final iInspections and as-built plans.

(1) *As-Built Drawings; Delivery of Inspection and Maintenance Agreement.* Upon completion of development, the applicant is responsible for:

a. Ccertifying that the completed project stormwater management system is functioning properly and was constructed in conformance within accordance with the approved stormwater management plan and hydrologic analysis,. All applicants are required to submit actual "

b. Submitting as-built" plans for any stormwater management facilities or practices after final construction is completed. The plan must show drawings showing the final design specifications for all components of the stormwater management system as facilities and practices and must be certified by a professional engineer. A final inspection by the city is required before the release of any performance bonds or financial guarantees.

c. Certifying that the landscaping is established and installed in conformance with the BMP landscaping plan, and

d. Delivering to the City of Dunwoody a signed inspection and maintenance agreement that has been recorded by the owner in the property record for all parcels that make up the site.

1. *Specific Certification Requirements.* In order to ensure each component is functioning as designed and built according to the design specifications in the approved stormwater management plan, a certification of volume, or

Commented [KD18]: Likely plan is to reorganize 1 & 2 language

other performance test applicable to the type of stormwater management system component, must be performed by a qualified person.

2. *Final Inspection*. The certification and required performance tests shall be submitted to the City of Dunwoody with the request for a final inspection. The City of Dunwoody shall perform a final inspection with the applicant to confirm applicant has fulfilled all applicable responsibilities. A final inspection by the city is required before the release of any performance bonds or financial guarantees.

(c) Violations and Enforcement. Any violation of the approved stormwater management plan during construction, failure to submit as-built drawings, failure to submit a final BMP landscaping plan, or failure of the final inspection shall constitute and be addressed as violations of, or failures to comply with, the underlying land disturbance permit pursuant to Sec. 16-60 or the underlying building permit pursuant to Sec. 16-29. To address a violation of this division, the City of Dunwoody shall have all the powers and remedies that are available to it for other violations of building and land disturbance permits, including without limitation the right to issue notices and orders to ensure compliance, stop work orders, and penalties as set forth in the applicable ordinances for such permits.

Commented [CD19]: Land Disturbance Permits

Commented [CD20]: Development Permits

(cd) *Long-term maintenance and inspections.*

(1) Stormwater management facilities and practices included in a stormwater management plan which are subject to an inspection and maintenance agreement must undergo ongoing inspections to document maintenance and repair needs and ensure compliance with the requirements of the agreement, the plan and this division.

(2) A stormwater management facility or practice must be inspected on a periodic basis by the responsible person in accordance with the approved inspection and maintenance agreement. In the event that the stormwater management facility has not been maintained and/or becomes a danger to public safety or public health, the public works director must notify the person responsible for carrying out the maintenance plan by registered or certified mail to the person specified in the inspection and maintenance agreement. The notice must specify the measures needed to comply with the agreement and the plan and must specify the time within which such measures must be completed. If the responsible person fails or refuses to meet the requirements of the inspection and maintenance agreement, the city may pursue all available enforcement actions and penalties.

(3) Inspection programs by the city may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in stormwater management facilities; and evaluating the condition of stormwater management facilities and practices.

(de) *Right-of-entry ~~for inspection~~.*

Maintenance Agreements. The terms of the inspection and maintenance agreement must provide ~~authority~~ for the right of entry for authorized city or city contracted officials ~~to enter the property at reasonable times and in a reasonable manner~~ for the purpose of maintenance inspections and other specified purposes. If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise invalidated or deemed insufficient, the City of Dunwoody shall have the right to enter and make inspections pursuant to the City of Dunwoody's general provisions for property maintenance inspections pursuant to Sec. 16-98/this section. ~~This includes the right to enter a property when the city has a reasonable basis to believe that a violation is occurring or has occurred and to enter when necessary for abatement of a public nuisance or correction of a violation.~~

Commented [CD21]: Formerly Sec. 16-95
Check if another, more general section exists and if it should be referenced instead.

(fe) *Maintenance responsibilities.*

(1) Except as otherwise provided in this section, commercial and/or multifamily residential property owner is responsible for the maintenance of the stormwater management facilities during grading, construction, and following final approval of the completed project. This maintenance and certification obligation is binding on all future owners, successors and assigns of the property.

(2) Stormwater management facilities in single-family residential subdivisions constructed under permits issued prior to the adoption of the city ordinance assigning maintenance responsibility will not be accepted for city maintenance unless individually approved by and at the discretion of the public works director and suitable access easements are provided. The public works director shall make a decision within 30 days of submittal of the request. The applicant shall be empowered to appeal the decision of the public works director to the mayor and city council, which shall hear the appeal within 30 days of receipt of the appeal.

~~(f) *Records.* Parties responsible for the operation and maintenance of a stormwater management facility must provide records of all maintenance and repairs to the public works director.~~

(g) *Owner's Failure to Maintain the Stormwater Management System.* ~~*Failure to maintain.*~~ The terms of the inspection and maintenance agreement shall provide for what constitutes a failure to maintain a stormwater management system and the enforcement options available to the City of Dunwoody. If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then:

(1) An owner's failure to maintain the stormwater management system so that it performs as it was originally designed shall constitute and be addressed as a violation of, or failure to comply with, owner's property maintenance obligations pursuant to Sec. 8-1 (State Minimum Standard Codes) and

(2) To address such a failure to maintain the stormwater management system, the City of Dunwoody shall have all the powers and remedies that are available to it for other violations of an owner's property maintenance obligations, including without limitation prosecution, penalties, abatement, and emergency measure.

If a responsible person fails or refuses to meet the requirements of the inspection and maintenance agreement, the public works director, after 30 days' written notice (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24-hour notice is deemed sufficient), may correct a violation of the design standards or maintenance requirements by performing the necessary work to place the facility or practice in proper working condition. The city may assess the owners of the facility for the cost of repair work, which will be a lien on the property, and may be placed on the ad valorem tax bill for such property and collected in the ordinary manner for such taxes.

(h) *Special drainage system maintenance requirements.*

(1) Pursuant to all applicable city and county law, trash, garbage, construction materials, construction by-products or other debris may not be deposited in any part of the drainage system.

(2) No restriction or barriers, including fences, may be placed in the drainage system or special flood hazard areas without first obtaining a development permit. When on-site or off-site debris has accumulated within a special flood hazard area in such a manner as to interfere with the free flow of water so as to increase the risk of hazardous inundation of upstream properties adjacent to special flood hazard areas, the community development director, or designee, must require the owner of the property where this debris was generated, if its source can be identified, to clear and remove the debris so as to permit the free flow of water.

Commented [CD22]: Includes International Property Maintenance Code, as amended for Georgia.

(3) No impoundment of water which retains in excess of 0.5 acre-foot of runoff may be removed without first obtaining a development permit, which may only be issued after competent engineering studies provided by the applicant show that this removal will not adversely affect downstream properties.

(Ord. No. 2013-10-14, 1(Exh. A § 16-7.50), 10-14-2013; Ord. No. 2015-01-04, § 1, 1-26-2015; Ord. No. 2019-01-01, § I, 1-28-2019)

Secs. 16-996—16-104. - Reserved.

DIVISION 2. - DEFINITIONS

Sec. 16-301. - Terms defined.

Definitions. For this division, the terms below have the following meanings:

The words and terms expressly defined in this division have the specific meanings assigned, unless the context clearly indicates another meaning.

Other terms used but not defined in this division shall be interpreted based on how such terms are defined and used in the GSMM and the City of Dunwoody's MS4 Permit.

~~Words that are not expressly defined have the meaning given in the latest edition of Merriam-Webster's Unabridged Dictionary.~~

(a) *Terms beginning with "A."*

Accessory structure means a structure, the use of which is customarily incidental and subordinate to that of the principal building of the same lot, such as a detached garage, toolshed or gazebo.

Accessory use means a use customarily incidental and subordinate to the principal use of the principal building or to the principal use of the premises.

Addition (to an existing building) means any walled and roofed expansion to the perimeter of a building in which the addition is connected to a common load-bearing wall other than a firewall. Any walled and roofed addition that is connected by a firewall or is separated by independent perimeter load-bearing walls is considered new construction.

Adjacent to the future-conditions floodplains means those areas located within the defined horizontal distance from the future-conditions floodplain boundary that are at or lower in elevation than either three feet above the base flood elevation or one foot above the future-conditions flood elevation, whichever is higher, unless the area is hydraulically independent (meaning absolutely no connection to the flooding source such as through pipes, sewer laterals, down drains, foundation drains, ground seepage, overland flow, gated or valved pipes, excavated and backfilled trenches, etc. with no fill or other manmade barriers creating the separation).

Administrator means the person appointed to administer and implement this division on Post-Construction Stormwater Management for New Development and Redevelopment in accordance with ~~Section [Y]-4~~Sec. 16-91(b)(4).

Aggrieved person means a person whose property is the subject of the action appealed from or a person who has a substantial interest in the action appealed from, who is in danger of suffering special damage or injury not common to all property owners similarly situated.

Agricultural operations means those practices involving the establishment, cultivation or harvesting of products of the field or orchard; the preparation and planting of pasture land and farm ponds; dairy operations; livestock and poultry management practices; and the construction of farm buildings.

Alley means a minor way that is used primarily for vehicular service access to the back or side of properties otherwise fronting on a street.

Applicant means a~~ny~~ person submitting a land development application for approval. ~~who acts in the person's own behalf or as the agent of an owner of property and engages in alteration of land or vegetation in preparation for construction activity.~~

Area of shallow flooding means a designated AO or AH zone on the flood insurance rate map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of special flood hazard. See "special flood hazard area."

Commented [KD1]: Definitions from previous model ordinance were left out of this section – leave out again, or include?
*Note: kept in separate section…Article VI Div. 2

Commented [CT2R2]: I think as long as the definitions are somewhere referenced in the ordinance, I wouldn't be too concerned. If its in another section of the code, that's fine.

Commented [KD3R2]: Moved to Division 2 (Section 16-301).

Arterial (street) means a street, road or highway shown as an arterial in the City of Dunwoody Comprehensive Transportation Plan.

As-built drawings means amended site plans specifying the location, dimensions, elevations, capacities and operational capabilities of public improvements, including water, sewer, road and drainage structures and stormwater management facilities as they have been constructed.

(b) *Terms beginning with "B."*

Bank (stream bank) means as measured horizontally from that point where vegetation has been wrested by normal stream flow or wave action.

Base flood means a flood that has a 1 percent chance of being equaled or exceeded in any given year (also called the 100-year flood).

Base flood elevation means the highest water surface elevation anticipated at any given point during the base flood.

Basement means any area of a building having its floor below ground level on three or more sides.

Best management practice~~s~~ (BMP~~s~~) means both structural devices to store or treat stormwater runoff and non-structural programs or practices which are designed to prevent or reduce the pollution of the waters of the State of Georgia.~~include sound conservation and engineering practices to prevent and minimize erosion and resultant sedimentation, which are consistent with, and no less stringent than, those practices contained in the Manual for Erosion and Sediment Control in Georgia, published by the commission as of January 1 of the year in which the land-disturbing activity was permitted.~~

BMP landscaping plan means a design for vegetation and landscaping that is critical to the performance and function of the BMP including how the BMP will be stabilized and established with vegetation. It shall include a layout of plants and plant names (local and scientific).

Bicycle lane means that part of a street or highway adjacent to the roadway, designated by official signs or markings for use by persons riding bicycles.

Block means a piece or parcel of land entirely surrounded by public highways or streets, other than alleys. In cases where the platting is incomplete or disconnected, the community development director may delineate the outline of the block.

Breakaway wall means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or the supporting system.

Buffer area means that portion of a lot set aside for open space and/or visual screening purposes, pursuant to the applicable provisions of this Code and all conditions of zoning, to separate different use districts or to separate uses on one property from uses on another property of the same use district or a different use district.

Buffer, stream, means the portion of a lot and/or area of land immediately adjacent to the banks of streams as regulated by the land development regulations of this Code.

Buffer zone, state, means the area of land immediately adjacent to the banks of state waters in its natural state of vegetation that facilitates the protection of water quality and aquatic habitat.

Buildable area means the area of a lot remaining after all applicable zoning and land development regulations have been met (i.e., that portion of a lot where a building may be located).

Builder means a person who constructs a structure or dwelling for residential occupancy by humans.

Building. See "structure".

Building, elevated. See "elevated building."

Building permit means required written permission issued by the community development director or a building inspector for the construction, repair, alteration or addition to a structure.

Building setback line means the minimum horizontal distance required between the public right-of-way or the utility easement abutting a private street and the principal building or structure on a lot or any projection thereof, except projections that are authorized exceptions to building setback line requirements in the city zoning ordinance and any zoning conditions approved by the city council pursuant thereto. The size of the utility easement for a private street is equal to the required size of the public right-of-way and may not be any smaller in width or length than what would be required for a public right-of-way.

(c) *Terms beginning with "C."*

Caliper means the diameter of a tree trunk, taken six inches above the ground for up to and including four-inch caliper size, and 12 inches above the ground for larger sizes.

Certified arborist means an individual who has been certified as an arborist by the International Society of Arboriculture and maintains the certification in good standing.

Channel means a natural or artificial watercourse with a definite bed and banks that ~~conduct~~ conveys continuously or periodically flowing water.

Channel protection means the protection of stream channels, in accord with the Georgia Stormwater Management Manual, from bank and bed erosion and degradation by preserving or restoring the applicable stream buffer, by providing extended detention and by integrating erosion prevention measures such as energy dissipation and velocity control.

City arborist means the community development director or the community development director's designee having primary administration and enforcement responsibilities for landscaping and tree regulations.

City manager means the city manager of the City of Dunwoody.

City of Dunwoody Stormwater Management Manual means the Georgia Stormwater Management Manual.

Collector street means a street or road designated as a collector street in the City of Dunwoody Comprehensive Transportation Plan.

Commission means the Georgia Soil and Water Conservation Commission (GSWCC).

Comprehensive plan means the comprehensive plan adopted by the city council, as it may be amended from time to time, that divides the city into land use categories and that constitutes the official policy of the city regarding long-term planning and use of land.

~~*Conservation easement* means a restriction or limitation on the use of real property that is expressly recited in any deed or other instrument of grant or conveyance executed by or on behalf of the owner of the land described therein and whose purpose is to preserve land or water areas predominantly in their natural scenic landscape or open condition or in an agricultural farming, forest or open space use and includes conservation easements authorized by state law.~~

Construction means any alteration of land for the purpose of achieving its development or changed use, including particularly any preparation for, building of or erection of a structure.

Construction waste means waste building materials and rubble resulting from construction, remodeling, repair and demolition operations on pavements, houses, commercial buildings and other structures. Such waste includes, but is not limited to, asbestos-containing waste, wood, tree stumps, tree tops, bricks, metal, concrete, wall board, paper, cardboard, glass, wire, plastics and other typical construction waste products and refuse.

CPESC means certified professional in erosion and sediment control with current certification by EnviroCert, Inc. which is also referred to as CPESC or CPESC, Inc.

Critical root zone means a circular region measured outward from a tree trunk representing the essential area of roots that must be maintained or protected for the tree's survival. The critical root zone encompasses one foot of radial distance for every one inch of the tree's DBH, with a minimum radius of eight feet.

Crosswalk means a right-of-way within a block dedicated to public use, ten feet or more in width, intended exclusively for pedestrians and nonmotorized transportation and that is designed to improve or provide access to adjacent roads or lots.

Crown reduction pruning means a method of pruning to reduce the height or spread of a tree by performing appropriate pruning cuts.

Cut means a portion of land surface or area from which earth has been removed or will be removed by excavation or the depth below original ground surface to excavated surface. Also known as "excavation."

(d) *Terms beginning with "D."*

DBH (diameter at breast height) means the diameter of a tree trunk measured in inches at a height of four and one-half feet above the ground. If a tree splits into multiple trunks below four and one-half feet, then the trunk is measured at its most narrow point beneath the split.

Density factor means a unit of measurement used to calculate the required tree coverage on a site.

Design professional means a professional licensed by the State of Georgia in the field of: engineering, architecture, landscape architecture, forestry, geology, or land surveying; or a person that is a certified professional in erosion and sediment control (CPESC) with a current certification by EnviroCert, Inc. Design professionals shall practice in a manner that complies with applicable Georgia law governing professional licensure.

Detached means being separated from a principal structure by a minimum of three feet.

Detention means the temporary storage of stormwater runoff in a stormwater ~~management~~ detention facility for the purpose of controlling the peak discharge~~. of the stormwater, as that term is defined by state law, the City of Dunwoody Stormwater Management Manual or this chapter.~~

Detention facility means a ~~facility~~ structure designed~~that provides~~ for the storage and gradual release of stormwater runoff ~~and~~ at controlled rates.~~release of this runoff during and after a flood or storm.~~

~~*Developer* means any person who acts in the person's own behalf or as the agent of an owner of property and engages in alteration of land or vegetation in preparation for construction activity.~~

Development means new or redevelopment. ~~all activities associated with the conversion of land or the expansion or replacement of an existing use to any new use intended for human operation, occupancy or habitation, other than for agricultural purposes devoted strictly to the cultivation of land, dairying or animal husbandry. Such activities include, but are not limited to, land-disturbance (clearing and grubbing the land of vegetation and stumps and grading) and the construction of improvements such as, but not limited to, streets, driveways or parking area, water sewer mains, stormwater drainage facilities, sidewalks or other structures permanently placed in or on the property. Where appropriate to the context, development also may be used to denote a specific subdivision or project that is a single entity or intended to be constructed as interrelated whole, whether simultaneously or in phases. For the purposes of interpreting and administering the flood damage prevention regulations of article II, division 8, "development" means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving or any other installation of impervious cover, excavating or drilling operations or storage of equipment or materials.~~

Development permit means a permit issued by the City of Dunwoody that authorizes the commencement of development on a specific parcel of land.

District means the DeKalb Soil and Water Conservation District.

Division means the Environmental Protection Division (EPD) of the Department of Natural Resources.

DNR means the Georgia Department of Natural Resources.

Drainage means the removal of surface or subsurface water from a given area, either by gravity or by pumping, commonly applied herein to surface water.

~~*Drainage easement* means an easement appurtenant or attached to a tract or parcel of land allowing the owners of adjacent tracts or other persons to discharge stormwater runoff onto the tract or parcel of land subject to the drainage easement.~~

Drainage plan means a plan prepared using appropriate and commonly accepted engineering standards that specifies the means for alteration or development of a drainage system.

Drainage structure means a device composed of a virtually non-erodible material such as concrete, steel, plastic or other such material that conveys water from one place to another by intercepting the flow and carrying it to a release point for stormwater management, drainage control or flood control purposes.

Drainage system means the surface and subsurface system for the removal of water from the land, including, but not limited to, both the natural elements of streams, marshes, swales and ponds, whether of an intermittent or continuous nature and the manmade element that includes culverts, ditches, channels and detention facilities that comprise the storm drainage system.

(e) *Terms beginning with "E."*

Elevated building means a non-basement building built to have the lowest floor of the lowest enclosed area elevated above ground level by means of fill, solid foundation perimeter walls, pilings, columns, piers or shear walls that are adequately anchored so as not to impair the structural integrity of the building during a base flood event.

Encroachment means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain that may impede or alter the flow capacity of a floodplain.

EPD means the Environmental Protection Division of the Georgia Department of Natural Resources.

Erosion means the process by which land surface is worn away by the action of wind, water, ice or gravity.

~~*Erosion, sedimentation and pollution control plan* means a plan required by the Erosion and Sedimentation Act, O.C.G.A. Ch. 12-7, that includes, as a minimum protection at least as stringent as the state general permit, best management practices, and requirements in section IV.C.[16-59(c)] of this division.~~

Existing construction means any structure for which the "start of construction" commenced before October 14, 2009 the effective date of floodplain management regulations adopted by this community.

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads) is completed before October 14, 2009, the effective date of floodplain management regulations adopted by this community as a basis for community participation in the National Flood Insurance Program.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads).

Extended detention means the detention of stormwater runoff for an extended period of time.

~~, typically 24 hours or greater.~~

Extreme flood protection means measures taken to prevent adverse impacts from large low-frequency storm events with a return frequency of 100 years or more.

(f) *Terms beginning with "F."*

Fill means a portion of land surface to which soil or other solid material has been added; the depth above the original ground surface or an excavation.

Final stabilization means all soil disturbing activities at the site have been completed, and that for unpaved areas and areas not covered by permanent structures, 100 percent of the soil surface is uniformly covered in permanent vegetation with a density of 70 percent or greater, or landscaped according to the plan (uniformly covered with landscaping materials in planned landscape areas), or equivalent permanent stabilization measures as defined in the manual (excluding a crop of annual vegetation and seeding of target crop perennials appropriate for the region). Final stabilization applies to each phase of construction.

Finished grade means the final elevation and contour of the ground after cutting or filling and conforming to the proposed design.

~~*Flood* or *f*~~*Flooding* means a volume of surface water that exceeds the banks or walls of the BMP or channel; and overflows onto adjacent lands. ~~general and temporary condition of partial or complete inundation of normally dry land areas from:~~

~~(1) The overflow of inland waters; or~~

~~(2) The unusual and rapid accumulation or runoff of surface waters from any source.~~

Flood hazard boundary map (FHBM) means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated the special flood hazard areas as Zone A.

Flood insurance rate map (FIRM) means an official map on which the Federal Emergency Management Agency has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

Flood insurance study means the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, as well as the flood boundary floodway map and the water surface elevation of the base flood.

Floodplain means any land area susceptible to flooding.

Floodplain coordinator means the individual appointed to administer and enforce the flood protection regulations of article II, division 8.

Floodproofing means any combination of structural and nonstructural additions, changes or adjustments to structures that reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway means the channel of a river or other watercourse and the adjacent areas of the floodplain that is necessary to contain and discharge the base flood flow without cumulatively increasing the base flood elevation more than one foot; sometimes referred to as the "regulatory floodway."

Floor means the top surface of an enclosed area in a building, including basement (i.e., the top of slab in concrete slab construction or top of wood flooring in wood frame construction). The term does not include the floor of a garage used solely for parking vehicles.

Frontage, lot means the distance for which the front boundary line of the lot and the street line are coincident.

Functionally dependent use means a use that cannot perform its intended purposes unless it is located or carried out in close proximity to water.

Future-conditions flood means the flood having a one-percent chance of being equaled or exceeded in any given year based on future-conditions hydrology. Also known as the 100-year future-conditions flood.

Future-conditions flood elevation means the flood standard equal to or higher than the base flood elevation. The future-conditions flood elevation is defined as the highest water surface anticipated at any given point during the future-conditions flood.

Future-conditions floodplain means any land area susceptible to flooding by the future-conditions flood.

Future-conditions hydrology means the flood discharges associated with projected land-use conditions based on a community's zoning map, comprehensive land-use plans and/or watershed study projections, and without consideration of projected future construction of flood detention structures or projected future hydraulic modifications within a stream or other waterway, such as bridge and culvert construction, fill and excavation.

(g) *Terms beginning with "G."*

Grading means altering the shape of ground surfaces to a predetermined condition; this includes stripping, cutting, filling, stockpiling and shaping or any combination thereof and includes the land in its cut or filled condition.

Ground elevation means the original elevation of the ground surface prior to cutting or filling.

GSMM means to latest edition of the Georgia Stormwater Management Manual, Volume 2: Technical Handbook, and its Appendices.

(h) *Terms beginning with "H."*

Hardwood tree means a tree that does not bear either needles or cones. The term hardwood is based on the colloquialism and does not reflect any true qualities of the tree.

Highest adjacent grade means the highest natural elevation of the ground surface, prior to construction, next to the proposed foundation of a building.

Historic structure means any structure that is:

(1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary of the Interior to qualify as a registered historic district;

(3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

(4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs.

Hydrologic soil group (HSG) means a Natural Resource Conservation Service classification system in which soils are categorized into four runoff potential groups. The groups range from group A soils, with high permeability and little runoff produced, to group D soils, which have low permeability rates and produce much more runoff.

Commented [CD4]: Wording is in existing code, but HSG isn't in its own paragraph as the next definition.

Hotspot means a land use or activity on a site that has the potential to produce higher than normally found levels of pollutants in stormwater runoff. As defined by the administrator, hotspot land use may include gasoline stations, vehicle services and maintenance areas, industrial facilities (both permitted under the Industrial Stormwater General Permit and others), material storage sites, garbage transfer facilities, and commercial parking lots with high-intensity use.

(i) *Terms beginning with "I."*

Impervious surface ~~or *impervious cover*~~ means a~~ny~~ surface composed of any material that significantly impedes or prevents the natural ~~that is highly resistant to~~ infiltration ~~by~~ of water~~, including, but not limited to, surfaces such as concrete or asphalt as well as most conventionally surfaced streets, roofs, sidewalks, driveways, parking lots and other similar structures.~~ into the soil.

Industrial Stormwater General Permit means the National Pollutant Discharge Elimination System (NPDES) permit issued by Georgia Environmental Protection Division to an industry for stormwater discharges associated with industrial activity. The permit regulates pollutant levels associated with

industrial stormwater discharges or specifies on-site pollution control strategies based on Standard Industrial Classification (SIC) Code.

Infiltration means the process of percolating stormwater runoff into the subsoil.

Inspection and maintenance agreement means a written agreement providing for the long-term inspection, operation, and maintenance of the stormwater management system and its components on a site. ~~executed by an owner in a form approved by the community development director that will provide the long-term inspection and maintenance of stormwater management facilities and practices on a site or with respect to a land development project that, when properly recorded in the deed records, constitutes a restriction on the title to a site or other land involved in a land development project.~~

(j) *Terms beginning with "J."*

~~*Jurisdictional wetland* means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.~~

(k) *Terms beginning with "K."*

RESERVED

(l) *Terms beginning with "L."*

Land development application means the application for a land development permit on a form provided by ~~THE CITY~~the City along with the supporting documentation required in Sec. 16-94(b)~~Section [Y]-10(a)~~.

Land development permit…means the authorization necessary to begin construction-related, land-disturbing activity.

Land- disturbing activity means any activity ~~that~~ which may result in soil erosion from water or wind and the movement of sediments into state waters or onto lands within the state, including, but not limited to, clearing, dredging, grading, excavating, ~~transporting~~ and filling of land, but not including agricultural practices as described in ~~section~~ Sec. 16-58 or Silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities.

Commented [CD5]: Unchanged

Landscape plan means a plan that identifies areas of tree preservation and methods of tree protection within the protected zone, as well as all areas or replanting. Within replanting areas, the common and botanical names of the proposed species, the number of plants of each species, the size of all plants, the proposed location of all plants and any unique features of the plants.

Larger common plan of development or sale means a contiguous area where multiple separate and distinct construction activities are occurring under one plan of development or sale. For the purposes of this definition, the term "plan" means an announcement; piece of documentation such as a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request or computer design; or physical demarcation such as boundary signs, lot stakes or surveyor markings indicating that construction activities may occur on a specific plot.

Linear feasibility program means a feasibility program developed by ~~THE CITY~~the City and submitted to the Georgia Environmental Protection Division, which sets reasonable criteria for determining when implementation of stormwater management standards for linear transportation projects being constructed by ~~THE CITY~~the City is infeasible.

Linear transportation projects means construction projects on traveled ways including but not liited to roads, sidewalks, multi-use paths and trails, and airport runways and taxiways.

Live detention means that quantity of water capable of being effectively contained by a designated facility for stormwater storage for a specified period of time.

Local issuing authority means the governing authority of the city that is certified pursuant to O.C.G.A. §12-7-8(a).

Local street means a street used primarily for access to abutting properties in residential, industrial or other developments.

Lot means a designated parcel, tract or area of land legally established by plat, subdivision, or as otherwise permitted by law, to be separately owned, used, developed or built upon.

Lot, corner, means a lot abutting upon two or more streets at their intersection or upon two parts of the same street forming an interior angle of less than 135 degrees.

Lot, double-frontage, means a lot that abuts two parallel streets or that abuts two streets that do not intersect at the boundaries of the lot. A double-frontage lot may also be referred to as a through lot.

Lot, flag, means a lot that sits behind lots which face directly onto a street with access provided to the bulk of the lot by means of a narrow corridor, whether providing the minimum amount of street frontage and width or not.

Lowest floor means the lowest floor of the lowest enclosed area, including basement. An unfinished or flood-resistant enclosure below the lowest floor that is usable solely for parking or vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of other provisions of these land development regulations.

(m) *Terms beginning with "M."*

Maintenance of detention facility means preserving the enclosed walls or impounding embankments of the detention facility in good condition; ensuring structural soundness, functional adequacy and freedom from excessive sediment; removing obstructions affecting operation of outlet device; and rectifying any unforeseen erosion problems.

Manufactured home means a structure, transportable in one or more sections, built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term includes any structure commonly referred to as a "mobile home" regardless of the date of manufacture. The term also includes parked trailers, travel trailers and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property.

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Market value means (1) the appraised value of the structure prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the structure prior to the damage occurring. This term includes structures that have incurred "substantial damage" regardless of the actual amount of repair work performed.

Mean sea level means the average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. It is used as a reference for establishing various elevations within the floodplain. For purposes of these regulations, the term is synonymous with National Geodetic Vertical Datum (NGVD) and/or the North American Vertical Datum (NAVD) of 1988.

MS4 Permit means the NPDES permit issued by Georgia Environmental Protection Division for discharges from the ~~CITY'S~~City's municipal separate storm sewer system.

Multiphase residential development means any development undertaken by a single developer or a group of developers acting in concert to develop lots for sale in a residential subdivision where such land is developed pursuant to multiple preliminary or final plats and such land is contiguous or is known, designated or advertised as a common unit or by a common name.

Multi-use trail means a recreation corridor intended for the use of nonmotorized forms of transportation such as, but not limited to, walking, wheelchairs, running, bicycles and inline skates, as identified in the Parks, Recreation and Greenspace Master Plan, the Comprehensive Transportation Plan or other plan adopted by the city council.

(n) *Terms beginning with "N."*

National Geodetic Vertical Datum (NGVD), as corrected in 1929, means a vertical control used as a reference for establishing varying elevations within the floodplain.

Natural ground surface means the ground surface in its original state before any grading excavation or filling.

Nephelometric turbidity units (NTUs) means numerical units of measure based upon photometric analytical techniques for measuring the light scattered by finely divided particles of a substance in suspension. This technique is used to estimate the extent of turbidity in water in which colloidally dispersed particles are present.

New construction means any structure for which the permitted date of construction commenced after adoption of this chapter, October 14, 2009. For the purposes of interpreting and administering the flood damage prevention regulations of article II, division 8, "new construction" means structures for which the start of construction commenced on or after the effective date of floodplain management regulations adopted by this community as a basis for community participation in the NFIP.

New Development means land disturbing activities, structural development (construction, installation or expansion of a building or other structure), and/or creation of impervious surfaces on a previously undeveloped site.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads) is completed on or after October 14, 2009, the effective date of floodplain management regulations adopted by this community.

Nonpoint source pollution means a form of water pollution that does not originate from a discrete point such as a wastewater treatment facility~~sewage treatment plant~~ or industrial discharge, but involves the transport of pollutants such as sediment, fertilizers, pesticides, heavy metals, oil, grease, bacteria, organic materials and other contaminants from land to surface water ~~and~~ or groundwater via mechanisms such as precipitation, stormwater runoff and leaching. Nonpoint source pollution is a by-product of land use practices such as agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources.

~~*Nonstructural stormwater management practice* or *nonstructural practice* means any natural or planted vegetation or other nonstructural component and practice of the stormwater management plan that provides for or enhances stormwater quantity and/or quality control or other stormwater management benefits and includes, but is not limited to, riparian buffers, open and green space areas, overland flow filtration areas, vegetated channels and natural depressions.~~

North American Vertical Datum (NAVD), as corrected in 1988, means a vertical datum used as a reference for establishing varying elevations within the floodplain.

(o) *Terms beginning with "O."*

~~Off-site facility means a stormwater management facility located outside the boundaries of the site.~~

100-year floodplain means land in the floodplain subject to a one-percent or greater statistical occurrence probability of flooding in any given year.

~~*On-site facility* means a stormwater management facility located within the boundaries of the site.~~

~~*Open space* means that portion of a lot, including yards, established pursuant to the requirements of this chapter as open space that is open and unobstructed from ground level to the sky, with the exception of natural foliage or accessory recreational facilities or walkways, that is accessible to all persons occupying a building on the lot and is not a part of the roof of any portion of any building.~~

Operator means the party that has:

(1) Operational control of construction project plans and specifications, including the ability to make modifications to those plans and specifications; or

(2) ~~—~~Day-to-day operational control of those activities that are necessary to ensure compliance with a stormwater pollution prevention plan for the site or other permit conditions, such as a person authorized to direct workers at a site to carry out activities required by the stormwater pollution prevention plan or to comply with other permit conditions.

Ornamental trees means small growing trees, attaining a mature height of less than 40 feet, grown primarily for aesthetic purposes, i.e., flowers, fruit, etc.

Overbank flood protection means measures taken to prevent an increase in the frequency and magnitude of out-of-bank flooding (i.e., flow events that exceed the capacity of the channel and enter the floodplain) ~~and that are intended to protect downstream properties from flooding for the two-year through 25-year frequency storm events~~.

Overstory tree means those trees that compose the top layer or canopy of vegetation and will generally reach a mature height of greater than 40 feet.

Owner means the legal or beneficial owner of a site, including but not limited to, a mortgagee r vendee in possession, receiver, executor, trustee, lessee or other person, firm or corporation in control of the site.~~person in whom is vested the fee ownership, dominion or title of property or the proprietor. This term may also include a tenant, if chargeable under the lease for maintenance of the property and any agent of the owner or tenant, including a developer.~~

(p) *Terms beginning with "P."*

~~*Permit* means the authorization necessary to conduct a land-disturbing activity under the provisions of this chapter.~~

Person means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, city, county, ~~state agency, municipality~~ or other political subdivision of the State~~this state~~, any interstate body or any other legal entity.

Planning commission means the planning commission of the city.

Post-construction stormwater management means stormwater best management practices that are used on a permanent basis to control and treat runoff once construction has been completed in accordance with a stormwater management plan.

Post-development means ~~refers to the time period or~~ the conditions ~~that may reasonably be expected or~~ anticipated to exist~~, after completion of land development activity~~ on a site immediately after completion of the proposed development~~as the context may require~~.

Potential purchaser means a person purchasing property in a residential subdivision or a multiphase residential development from a developer and/or builder for occupancy as a residence or as a residence to be rented or leased to others.

Practicability Policy…means the latest edition of the Metropolitan North Georgia Water Planning Districts Policy on Practicability Analysis for Runoff Reduction.

Pre-development means the~~refers to~~ conditions that exist on~~of~~ a site immediately before the implementation of the proposed ~~any~~ development. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time before the first item being approved or permitted shall establish pre-developed conditions. ~~activity occurred or before a development permit was issued.~~

Pre-development hydrology means (a) for new development, the runoff curve number determined using natural conditions hydrologic analysis based on the natural, undisturbed condition of the site immediately before implementation of the proposed development; and (b) for redevelopment, the existing conditions hydrograph may take into account the existing development when defining the runoff curve number and calculating existing runoff, unless the existing development causes a negative impact on downstream property.

Previously developed site means a site that has been altered by paving, construction, and/or land disturbing activity.

~~*Project* means the entire proposed development project regardless of the size of the area of land to be disturbed.~~

Protected zone means all areas of a parcel required to remain in open space, including all areas required as yard or setback areas, buffer areas, stream buffers, state buffer zones or landscaped areas in accordance with provisions of the city zoning ordinance or by conditions of zoning or variance approval.

Public facilities means the roads, water, sewer, schools, traffic control devices and electrical service.

(q) *Terms beginning with "Q."*

RESERVED

(r) *Terms beginning with "R."*

Reach means a longitudinal segment of a stream or river measured along specified points on the stream or river.

Reasonable access means a 15-foot wide access easement from the public right-of-way to the stormwater management facility and a drainage and maintenance easement encompassing the stormwater management facility and extending ten feet outside the pond's 100-year water ponding elevation.

Recreation areas mean those portions of open space designed and intended for active recreational use, such as sports fields and other play areas.

Recreational vehicle means a vehicle that is:

(1) Built on a single chassis;

(2) Four hundred square feet or less when measured at the largest horizontal projection;

(3) Designed to be self-propelled or permanently towable by a light-duty truck; and

(4) Not designed primarily for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

Redevelopment means structural ~~a land~~ development (construction, installation, or expansion of a building or other structure), creation or addition of impervious surfaces, replacement of impervious surfaces not as a part of routine maintenance, and land disturbing activities associated with structural or impervious development on a previously developed site. Redevelopment does not include such activities as exterior remodeling. ~~project on a previously developed site, but excludes ordinary maintenance activities, remodeling of existing buildings, resurfacing of paved areas and exterior changes or improvements that do not materially increase or concentrate stormwater runoff or cause additional nonpoint source pollution.~~

~~*Regional stormwater management facility* or *regional facility* means stormwater management facilities designed to control stormwater runoff from multiple properties, where the owners or developers of the individual properties may assist in the financing of the facility and the requirement for on-site controls is either eliminated or reduced.~~

Residential has the same meaning as given in the city zoning ordinance except that it does not include apartments.

Revegetation means replacement of trees and landscape plant materials into the minimum required landscape areas, as determined by the zoning ordinance, conditions of zoning approval or applicable tree preservation or protection regulations.

Roadway drainage structure means a device such as a bridge, culvert or ditch, composed of a virtually nonerodible material such as concrete, steel, plastic or other such material that conveys water under a roadway by intercepting the flow on one side of a traveled way consisting of one or more defined lanes, with or without shoulder areas and carrying water to a release point on the other side.

Rock outcropping means a single, contiguous piece of exposed rock that has a horizontal surface area equal to or greater than 200 square feet.

Runoff means stormwater runoff. ~~the portion of precipitation on the land that reaches the drainage system.~~

Runoff coefficient means the ratio of runoff to rainfall.

Routine Maintenance means activities to keep an impervious surface as near as possible to its constructed condition. This includes ordinary maintenance activities, resurfacing paved areas, and exterior building changes or improvements which do not materially increase or concentrate stormwater runoff, or cause additional nonpoint source pollution.

(s) *Terms beginning with "S."*

Sediment means solid material, both organic and inorganic, that is in suspension, is being transported or has been moved from its site of origin by air, water, ice or gravity as a product of erosion.

Sediment basin means a detention facility specifically developed for the purpose of allowing the deposit of sediment resulting from the land development process that may be constructed as part of or separately from a detention facility.

Sedimentation means the process by which eroded material is transported and deposited by the action of water, wind, ice or gravity.

Seller means a builder or developer.

Significant tree means any existing, healthy, living tree eight inches DBH or greater in size.

Site means an area of land where development is planned, which may include all or portions of one or more parcels of land. For subdivisions and other common plans of development, the site includes all areas of land covered under an applicable land development permit.

Site plan means that plan required to acquire a development, construction or building permit that shows the means by which the applicant will comply with applicable provisions of this chapter and other applicable ordinances.

Softwood tree means any coniferous (cone-bearing) tree.

Soil and water conservation district approved plan means an erosion, sedimentation and pollution control plan approved in writing by the DeKalb Soil and Water Conservation District.

Special flood hazard area (SFHA) means an area in the floodplain subject to a one-percent or greater chance of flooding in any given year. This includes areas shown on an FHBM or FIRM as zone A, AO, A1-A30, AE, A99, AE, AO, AH or AR; all floodplain and floodprone areas at or below the future-conditions flood elevation; and all other floodprone areas as referenced in section 16-136. All streams with a drainage area of 100 acres or greater must have the special flood hazard area delineated.

Special tree means any tree that qualifies for special consideration for preservation due to its size, type, and condition.

Specimen tree means any tree that has been determined by the city arborist to be of high value because of its type, size, age, and/or of historical significance, or other professional criteria, and has been so designated in administrative standards established by the city. This is usually a plant with desirable form, foliage, fruit or flower that can be emphasized although isolated.

Spite strip means a piece of land used to separate a street or road rights-of-way from adjoining property and whose primary purpose is to preclude access to such rights-of-way.

Stabilization means the process of establishing an enduring soil cover of vegetation by the installation of temporary or permanent cover for the purpose of reducing to a minimum the erosion process and the resulting transport of sediment by wind, water, ice or gravity.

Standards and specifications means construction and technical requirements that govern construction and installation of streets and other public improvements in the City of Dunwoody.

Start of construction means the initial disturbance of soils associated with clearing, grading or excavating activities or other construction activities. The term "construction activities" means the disturbance of soils associated with clearing, grading, excavating, filling of land or other similar activities that may result in soil erosion. For the purposes of interpreting and administering the flood damage prevention regulations of article II, division 8, "start of construction" means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement was within 180 days of the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab for footings, the installation of piles, the construction of columns or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation of accessory buildings or structures appurtenant to the principal structure, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

State general permit means the national pollution discharge elimination system general permit for stormwater runoff from construction activities as is now in effect or as may be amended or reissued in the future pursuant to the state's authority to implement the same through federal delegation under the federal Water Pollution Control Act, as amended, 33 USC 1251 et seq. and O.C.G.A. § 12-5-30(f).

State waters means any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, and other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the state that are not entirely confined and retained completely upon the property of a single individual, partnership or corporation.

Stormwater better site design means a nonstructural site design approach and technique that can reduce a site's impact on the watershed and can provide for nonstructural stormwater management. The term "stormwater better site design" includes conserving and protecting natural areas and greenspace, reducing impervious cover and using natural features for stormwater management.

Stormwater Concept Plan means an initial plan for post-construction stormwater management at the site that provides the groundwork for the stormwater management plan including the natural resources inventory, site layout concept, initial runoff characterization, and first round stormwater management system design.

~~*Stormwater hotspot* means an area where the use of the land has the potential to generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. Examples of stormwater hotspots include, but are not limited to, gas/fueling stations, vehicle maintenance areas, vehicle washing/steam cleaning facilities, auto recycling facilities, outdoor material storage areas, loading and transfer areas, landfills, construction sites, industrial sites and industrial rooftops.~~

Stormwater management means the collection, conveyance, storage, treatment and disposal of stormwater runoff in a manner intended to prevent increased flood damage, streambank channel erosion, habitat degradation and water quality degradation and to enhance and promote the public health, safety and general welfare.

~~*Stormwater management facilities* means those structures and facilities that are designed for the collection, conveyance, storage, treatment and disposal of stormwater runoff into and through the drainage system.~~

Stormwater management manual means the Georgia Stormwater Management Manual.

~~*Stormwater management measure* means any stormwater management facility or nonstructural stormwater practice.~~

Stormwater management plan means a plan for post-construction stormwater management at the site that meets the requirements of Sec. 16-92(d)~~Section [Y]-8(d)~~ and is included as part of the land

development application.~~document describing how existing runoff characteristics will be affected by a land development project and containing measures for complying with the provisions of this chapter.~~

Stormwater Management Standards means those standards set forth in ~~Section [Y]-7~~Sec. 16-91(e).

Stormwater management system means the entire set of ~~structural and~~ nonstructural site design features and structural BMPs for collection, conveyance, storage, infiltration, treatment, and disposal of ~~stormwater management facilities and practices that are used to capture, convey and control the quantity and quality of the~~ stormwater runoff in a manner designed to prevent increased flood damage, streambank channel erosion, habitat degradation and water quality degradation, and to enhance and promote the public health, safety and general welfare. ~~from a site.~~

~~*Stormwater retrofit* means a stormwater management practice designed for a currently developed site that previously had either no stormwater management practice in place or a practice inadequate to meet the stormwater management requirements of the site.~~

Stormwater runoff means flow on the surface of the ground, resulting from precipitation.

Stream means natural, running water flowing continuously or intermittently in a channel on or below the surface of the ground. Field verification must be performed to make a final determination as to the existence of a stream where a dispute exists. Such field verification must be performed under the direction of the community development director.

Streambank means a sloping land that contains a stream channel in the normal flows of the stream.

Stream channel means the portion of a watercourse that contains the base flow of the stream.

Stream, ephemeral (stormwater), means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is defined always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological and physical characteristics commonly associated with the continuous or intermittent conveyance of water.

Stream, intermittent, means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the seasonally high water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the conveyance of water.

Stream, perennial, means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological and physical characteristics commonly associated with the continuous conveyance of water.

Street, private, means an access way similar to and having the same function as a public street, providing access to more than one property but held in private ownership. Private streets, when authorized, must be developed in accordance with the specifications for public streets established in this chapter.

Street, public, means any right-of-way set aside for public travel dedicated to the city and any right-of-way that has been accepted for maintenance as a street by the city.

Street right-of-way line means the dividing line between a lot, tract or parcel of land and a street right-of-way.

Structural erosion, sedimentation and pollution control measures means measures for the stabilization of erodible or sediment-producing areas by utilizing the mechanical properties of matter for the purpose of either changing the surface of the land or storing, regulating or disposing of runoff to prevent excessive sediment loss. Examples of structural erosion and sediment control practices are riprap, sediment basins, dikes, level spreaders, waterways or outlets, diversions, grade stabilization structures, sediment traps and land grading. Such measures can be found in the Manual for Erosion and Sediment Control in Georgia.

~~*Structural stormwater control* means a structural stormwater management facility or device that controls stormwater runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release or the velocity of flow of such runoff.~~

Structure means a walled and roofed building (including a gas or liquid storage tank), that is principally above ground, or a manufactured home.

Subdivision means any division ~~or redivision~~ of a ~~lot,~~ tract or parcel of land resulting in one or more new lots or building sites for the purpose, whether immediately or in the future, of sale, other transfer of ownership or land development, and~~,~~ includes divisions of land resulting from or made in connection with the layout or development of a new street or roadway or a change in an existing street or roadway. ~~regardless of its existing and future use, into two or more lots, tracts or parcels. Where appropriate to context, subdivision may also be used to reference the aggregate of all lots held in common ownership at the time of division.~~

Substantial building permit means a nonresidential building permit issued by the city with a total value in excess of 50 percent of the county tax assessor's 100 percent assessed value of the existing improvements only. The aggregate value of all building permits issued to the property over the previous 12 months must be included in this calculation (see appendix E).

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial improvement means any combination of repairs, reconstruction, alteration or improvements to a building, taking place during a ten-year period, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. For the purposes of this definition, "substantial improvement" is deemed to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. The term does not, however, include those improvements of a building required to comply with existing health, sanitary or safety code specifications which are solely necessary to assure safe living conditions, which have been pre-identified by code enforcement officials, and not solely triggered by an improvement or repair project.

Substantially improved existing manufactured home parks or subdivision is where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

(t) *Terms beginning with "T."*

Tree means any living, self-supporting, woody perennial plant that has a trunk caliper of two inches or more measured at a point six inches above the ground and that normally attains a height of at least ten feet at maturity, usually with one main stem or trunk and many branches.

Tree harvesting means the felling, loading, and transporting of timber products done pursuant to a special exception issued by the zoning board of appeals.

Tree replacement means the replacement of trees and landscape plant materials in the minimum required landscape areas, as determined by the zoning regulations or the tree protection ordinance.

Tree save area means the boundaries of the area surrounding trees wherein it is essential that they remain undisturbed in order to prevent damage and loss of trees that are to be retained on-site during the development and building process.

Tree topping means the removal of tree limbs, branches, or stems by cutting at the internodes and resulting in the failure of the tree to assume apical dominance.

(u) *Terms beginning with "U."*

Understory tree means those trees that grow beneath the overstory trees and will generally reach a mature height of less than 40 feet.

Used for includes the terms "arranged for," "designed for," "intended for," "maintained for" and "occupied for."

(v) *Terms beginning with "V."*

Vegetation means all plant growth, especially trees, shrubs, vines, ferns, mosses and grasses.

Vegetative erosion, sedimentation and pollution control practices means practices for the stabilization of erodible or sediment-producing areas by covering the soil with:

(1) Permanent seeding, sprigging or planting, producing long-term vegetative cover;

(2) Temporary seeding, producing short-term vegetative cover; or

(3) Sodding, covering areas with a turf of perennial sod-forming grass.

Such practices can be found in the Manual for Erosion and Sediment Control in Georgia published by the state soil and water conservation commission.

(w) *Terms beginning with "W."*

Water quality protection means the requirement that all developments must improve the quality of storm runoff from the development site.

Watercourse means any natural or artificial waterway, stream, river, creek, channel, ditch, canal, conduit, culvert, drain, waterway, gully, ravine, or wash in which water flows either continuously or intermittently and that has a definite channel, bed and banks and including any area adjacent thereto subject to inundation by reason of overflow or floodwater.

Wetlands means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Width, lot, means the distance between the side lot lines, measured along a line drawn parallel to the front lot line at a distance from the front lot line equal to the minimum street yard setback. For lots with curvilinear frontage and setback lines (e.g.: cul-de-sac lots), the width shall be measured as a straight line through the points that intersect the side lot lines at a distance from the front lot line equal to the minimum street yard setback.

(x) *Terms beginning with "X."*

RESERVED

(y) *Terms beginning with "Y."*

RESERVED

(z) *Terms beginning with "Z."*

RESERVED

(Ord. No. 2013-10-14, 1(Exh. A § 16-18.10), 10-14-2013; Ord. No. 2015-01-04, § 1, 1-26-2015; Ord. No. 2017-03-06, § 2, 3-27-2017; Ord. No. 2018-10-16, § I, 10-8-2018)

Version 2.0 – June 2020

Policy on Practicability Analysis for Runoff Reduction

Introduction

Runoff reduction practices are stormwater Best Management Practices (BMPs) used to disconnect impervious and disturbed pervious surfaces from the storm drainage system. The purpose is to reduce post-construction stormwater runoff rates, volumes, and pollutant loads. Runoff reduction is more than simple infiltration. The Runoff Reduction Volume (RR_V) is the retention volume calculated to infiltrate, evapotranspirate, harvest and use, or otherwise remove runoff from a post-developed condition to more closely mimic the natural hydrologic conditions.

Certain conditions, such as soils with very low infiltration rates, high groundwater, or shallow bedrock, may lead a local jurisdiction to waive or reduce the runoff reduction requirement for proposed site development on a case-by-case basis. If any of the stormwater runoff volume generated by the first 1.0" of rainfall cannot be reduced or retained on the site, due to site characteristics or constraints, the remaining volume shall be increased by a multiplier of 1.2 and shall be intercepted and treated in one or more best management practices that provide at least an 80 percent reduction in total suspended solids.

The Policy on Practicability Analysis for Runoff Reduction (practicability policy) was developed to provide guidance about the site conditions and supporting documentation that could justify a "Determination of Infeasibility" for the runoff reduction requirement. This practicability policy does not address infeasibility for linear transportation projects being constructed by the local jurisdiction, other local governments, or authorities.

The practicability policy is based on the following principles:

- It is designed to help administrators implement a process for granting a Determination of Infeasibility that supports efficient review of land development applications.
- It applies to new development and redevelopment projects for public and private post-construction stormwater BMPs. It is referenced in the *Model Ordinance for Post-Construction Stormwater Management for New Development and Redevelopment* (Model Ordinance) developed by the Metropolitan North Georgia Water Planning District (Metro Water District).
- It aligns with requirements for runoff reduction in the Georgia Environmental Protection Division's (EPD's) permit to discharge from the municipal separate storm sewer system (MS4) permit. The MS4 permit states that the stormwater management system shall be designed to retain the first 1.0 inch of rainfall on the site to the maximum extent practicable. Most Georgia Stormwater Management Manual (GSMM) BMPs include a runoff reduction component.
- It is focused on the typical site conditions and regulatory environment in the Metro Water District and may not be applicable for all of Georgia.
- It requires a pre-submittal meeting when pursuing a Determination of Infeasibility to ensure all attempts to provide 100% RRv on site have been exhausted.

The local jurisdiction is responsible for the review of land development applications and determination that it is infeasible to apply the runoff reduction requirement on part or all of a proposed site development. Local jurisdictions may choose to make substantive changes or otherwise customize this

practicability policy. These further changes and customizations are allowable so long as their substance meets the requirements of a local jurisdiction's MS4 permit. EPD is responsible for evaluating MS4 permit and District Plan compliance, which includes verifying whether changes and customizations are "at least as effective." EPD has reviewed this document and their comments have been incorporated.

Conditions that may warrant a Determination of Infeasibility

The GSMM provides broad guidance about conditions that may lead a local jurisdiction to waive or reduce the runoff reduction requirement. The following conditions may warrant a Determination of Infeasibility.

- **Soil Infiltration Rate:** The soil infiltration rate is less than 0.5 inch per hour as measured over a meaningful portion of the site. Consideration should be given to infiltration rates throughout the soil profile.
- **Water Table:** The seasonal high-water table is less than two feet from the bottom of an infiltration practice.
- **Shallow Bedrock:** Material that cannot be excavated except by drilling or blasting AND is less than two feet from the bottom of an infiltration practice.
- **Extreme Topography:** In the proposed final condition, as shown on the Stormwater Concept Plan with the proposed post-development condition, anything steeper than 3:1 slope for more than 50% of the site.
- **Karst Topography:** Any of the existing condition is karst.
- **Hotspots/ Contamination:** Reasonable suspicion that previous uses of the site have resulted in soil contamination.
- **Historic Resources:** Buildings, structures, or historic sites included in the Georgia Historic Preservation Division's Historic Resources Survey or listed in the National Register of Historic Places or that has been recommended as a historic resource by a Preservation Professional.
- **Site Constraints:** Sites where the density or nature of the proposed redevelopment would create irreconcilable conflicts for compliance between the on-site runoff reduction requirement and other requirements such as zoning, floodplains, stream buffers, or septic fields.
- **Economic Hardship:** The cost of retaining the first 1.0 inch of rainfall onsite using runoff reduction practices is a minimum of three times greater than the cost of providing water quality practices. This condition must be present with another site condition for a Determination of Infeasibility. Additionally, a Determination of Infeasibility for economic hardship may only be allowed for up to 50% runoff reduction volume.

Supplemental Materials

The District has prepared supplemental materials to support the implementation of this practicability policy. *Appendix A* is meant for internal use and provides an overview of the steps a local jurisdiction could take to implement the practicability policy and issue a Determination of Infeasibility. *Appendix B* has a template the local jurisdiction could use as a runoff reduction infeasibility form.

Appendix A:

Overview of Processing a Determination of Infeasibility

Overview of Processing a Determination of Infeasibility

Obtaining a Determination of Infeasibility

Determination of Infeasibility is not an all or nothing proposition. Designers must demonstrate that they have explored all avenues to meet the runoff reduction standard. If this is determined to be infeasible, they must attempt to provide the maximum percentage of RRv on site as feasible. Only after all attempts to provide any RRv on site are exhausted will the local jurisdiction consider a Determination of Infeasibility. The following process is recommended to:

1. identify conditions early,
2. provide flexibility,
3. support efficient land development application review, and
4. protect water quality to the maximum extent practicable.

Does the Site Qualify for a Determination of Infeasibility?

Answering "NO" to any of the following questions may indicate that the site qualifies for a Determination of Infeasibility:

1. Can GSMM runoff reduction BMPs fully meet the runoff reduction volume?
2. Does the site analysis show the conditions are supportive for managing the calculated runoff reduction volume needed for the site?
3. Can better site design practices (see GSMM, Volume 2, Section 2.3) be used to avoid challenging site conditions or constraints?
4. Can BMPs, such as green roofs and rainwater harvesting techniques, be used in ways that do not require infiltration into subsurface soils, but rather rely on evapotranspiration and reuse?
5. Can the installation of multiple runoff reduction BMPs, such as installing runoff reduction BMPs at higher elevations or in multiple sub watersheds, manage the calculated runoff reduction volume needed for the site?

Prior to Construction

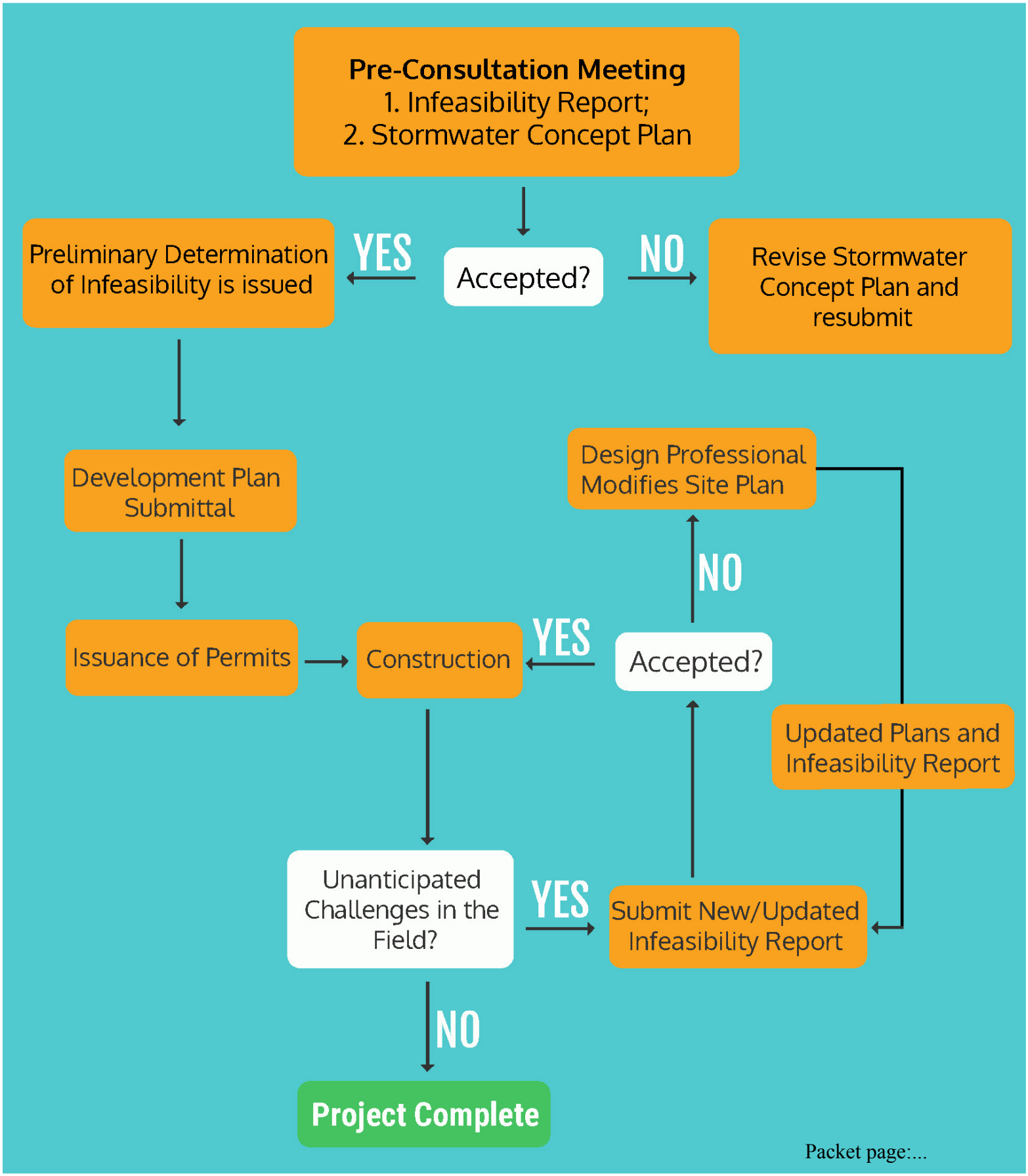
1) The design professional identifies conditions that limit using runoff reduction methods to retain 100% of the first 1.0 inch of rainfall onsite and initiates a pre-submittal meeting with the plan reviewer prior to submittal of the land development permit application. During the meeting, the following information will be reviewed:
   - Runoff Reduction Infeasibility Form to initiate the request and provide basic project information, confirmation that supporting documentation was submitted, and documentation of pre-submittal meeting outcomes.
   - Stormwater Concept Plan that has been developed based on site analysis, and natural resources inventory (including impracticability) in accordance with Section 2.4.2.5 of the GSMM.
2) The plan reviewer will evaluate the pre-submittal information on a case-by-case basis; coordinate with the design professional to understand site-specific issues; and (if possible) explore potential design strategies to achieve 100% RRv in compliance with the standards and specifications of the Post-Construction Stormwater Management Ordinance and GSMM.

3) Based on the pre-submittal information and meeting, the plan reviewer will provide one of the following determinations to the design professional:
   - Approval – preliminary Determination of Infeasibility issued
   - Approval with conditions – preliminary Determination of Infeasibility issued with conditions to incorporate plan reviewer comments into the Stormwater Concept Plan
   - Denial - revise the Stormwater Concept Plan to obtain 100% RRv
4) Design professional may either:
   - Submit the land development application with the Stormwater Management Plan and preliminary Determination of Infeasibility (as applicable).
   - Appeal the "denial" or "conditions" following the appeals process outlined in the local jurisdiction's regulations.

During Construction

1) During the development process, the owner encounters a site condition that would prevent building stormwater BMPs as specified in the Stormwater Management Plan. The design professional will complete a Runoff Reduction Infeasibility Form and initiate a meeting with the local jurisdiction plan reviewer to discuss the findings. The designer must evaluate modifications to the proposed BMPs or installation of alternative BMPs that will provide some or all RRv in an alternative method.
2) The plan reviewer will evaluate the Runoff Reduction Infeasibility Form on a case-by-case basis; coordinate with the design professional to understand site-specific issues; and (if possible) explore potential design strategies to keep the stormwater BMPs identified in the Stormwater Management Plan.
3) Based on the Runoff Reduction Infeasibility Form and meeting, the plan reviewer will provide one of the following determinations to the design professional:
   - Approval – Determination of Infeasibility is issued and attached to the land development permit
   - Approval with conditions – preliminary Determination of Infeasibility issued with conditions to either:
     i) Revise the design of runoff reduction methods (e.g. adding soil amendments or an underdrain to maximize runoff reduction volume) to retain the first 1.0 inch of rainfall onsite.
     ii) Meet the stormwater runoff quality/reduction standard through a combination of Runoff Reduction and Water Quality.
4) Design professional may either:
   - Continue construction as outlined modified Stormwater Management Plan under the Permit Revision with approved Determination of Infeasibility.
   - Appeal the "conditions" following the appeals process as outlined in the local jurisdiction regulations.

Determination of Infeasibility Process



Appendix B:

Template for a Runoff Reduction Infeasibility Form

Date (submitted):_____

~~[Insert Local Jurisdiction Name]~~City of Dunwoody

Runoff Reduction Infeasibility (RRI) Form for Determination of Infeasibility

Design Professional Primary Contact (Name/Email/Phone): _____

_____

Description of Site/Land Development Application Number: _____

Address:_____

Size (acres): _____

Maximum Practicable Runoff Reduction Volume*:_____

**If any of the stormwater runoff volume generated by the first 1.0" of rainfall cannot be reduced or retained on the site, due to site characteristics or constraints, the remaining volume shall be increased by a multiplier of 1.2 and shall be intercepted and treated in one or more best management practices that provide at least an 80 percent reduction in total suspended solids.*

GENERAL SUPPORTING DOCUMENTATION

All General Supporting Documentation must be included with this RRI Form for the submittal for a Determination of Infeasibility to be considered complete. Please check each item below to confirm it has been included in the submittal package.

- ☐ Stormwater Concept Plan that has been developed based on site analysis, and natural resources inventory (including impracticability) in accordance with Section 2.4.2.5 of the GSMM
- ☐ GSMM Stormwater Quality Site Development Review Tool for the Stormwater Concept Plan
- ☐ Please include justification that the site cannot accommodate best management practices that rely on evapotranspiration and reuse such as rainwater harvesting or green roofs

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SITE CONDITION APPLICABILITY

(descriptions are in *Policy on Practicability Analysis for Runoff Reduction*)

Please check each applicable item below and confirm the supporting documentation has been included in the submittal for a Determination of Infeasibility.

Site Condition	Supporting Documentation
☐ Soil Infiltration Rate	Infiltration test(s), Soil Boring Log(s), and Report of results as interpreted by a Professional Engineer, Professional Geologist, or Soil Scientist licensed in Georgia
☐ Water Table	Soil Boring Log(s) and Report with results of the seasonal high-water table assessment as interpreted by a Professional Engineer, Professional Geologist, or Soil Scientist licensed in Georgia
☐ Bedrock	Soil Boring Log(s) and Report with results of the shallow bedrock assessment as interpreted by a Professional Engineer, Professional Geologist, or Soil Scientist licensed in Georgia
☐ Extreme Topography	Site survey showing 50% of the site is steeper than 3:1 slopes as interpreted by a Professional Engineer or Land Surveyor licensed in Georgia AND Stormwater Concept Plan showing the proposed post-development condition will not change from the site survey
☐ Karst Topography	Report developed by a Professional Engineer, Professional Geologist, or Soil Scientist licensed in Georgia
☐ Hotspots/ Contamination	Phase I Environmental Assessment Report
☐ Historic Resources	Documentation of the NAHRGIS listing OR Report of assessment from a Preservation Professional (including Archaeologist, Architectural Historian, Historian, Historic Preservationist, or Historic Preservation Planner)
☐ Site Constraints	Site Plan identifying all development requirements (e.g. zoning side/front setbacks, build-to-lines, stream buffers, floodplains, septic fields) that are creating irreconcilable conflicts with on-site runoff reduction
☐ Economic Hardship*	An estimated cost comparison of proposed runoff reduction practices compared to the proposed water quality practices must be included to demonstrate an economic hardship and must show the cost of providing runoff reduction is a minimum of three times greater than the cost of providing water quality practices

** Note: A Determination of Infeasibility cannot be granted solely for economic hardship and must be present with another site condition. Additionally, a Determination of Infeasibility for economic hardship may only be allowed for up to 50% runoff reduction volume.*

STORMWATER RUNOFF QUALITY/ REDUCTION SUMMARY

Maximum Practicable Runoff Reduction Volume*:_____

Remainder of Volume treated by Water Quality Best Management Practice: _____

**If any of the stormwater runoff volume generated by the first 1.0" of rainfall cannot be reduced or retained on the site, due to site characteristics or constraints, the remaining volume shall be increased by a multiplier of 1.2 and shall be intercepted and treated in one or more best management practices that provide at least an 80 percent reduction in total suspended solids.*

Design Professional Printed Name_____

Design Professional Signature _____

FOR ~~[INSERT LOCAL JURISDICTION NAME]~~CITY OF DUNWOODY USE ONLY

☐ APPROVED

☐ APPROVED with conditions _____

☐ DENIED _____

Reviewer: _____

(Print Name) (Signature) (Date)