STATE OF GEORGIA **ORDINANCE 2020-02-03**
COUNTY OF FULTON

AN ORDINANCE TO AMEND THE CITY OF JOHNS CREEK LAND DEVELOPMENT ORDINANCES TO IMPROVE CONSISTENCY WITH THE ADOPTED COMPREHENSIVE PLAN

WHEREAS, the City of Johns Creek is subject to the State of Georgia Planning Act of 1989 which calls for a certified Comprehensive Plan in order to obtain and maintain the status of a Qualified Local Government; and

WHEREAS, the City adopted its first Comprehensive Plan on November 10, 2008, that met the requirements of State law; and

WHEREAS, State law requires the City to update its Comprehensive Plan at least every ten years; and

WHEREAS, following a thorough community involvement process, review by the Atlanta Regional Commission and the Department of Community Affairs, on October 8, 2018 the City adopted the updated Comprehensive Plan; and

WHEREAS, the City recognizes the Land Development Ordinances (Chapter 109 Natural Resources and Environmental Protection and Chapter 113 Development Regulations) should be updated to align with and implement the updated Comprehensive Plan.

NOW THEREFORE, the Mayor and Council of the City of Johns Creek hereby ordains that the Land Development Ordinances are amended to read as follows:

CHAPTER 109 – NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION

Article IV. – POST-DEVELOPMENT STORMWATER MANAGEMENT FOR NEW DEVELOPMENT AND REDEVELOPMENT

Section 109-81. Permit procedures and requirements.

(b) *Stormwater concept plan and consultation meeting.* Before any stormwater management permit application is submitted, the land owner or developer shall meet with the city community development department for a consultation meeting on a concept plan for the post-development stormwater management system to be utilized in the proposed land development project. 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, including Green Infrastructure/Low Impact Development designs, before the formal site design engineering is commenced.

(c) *Stormwater management plan requirements.*

(4) 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 sub-basin affected by the project; calculations for determining the runoff volumes that need to be addressed for each sub-basin for the development project to meet the post-development stormwater management performance criteria in section 109-82; 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.

Section 109-82. – Post-development stormwater management performance criteria.

(1) Runoff reduction. 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 the following requirements are met:

a. The stormwater management system is designed to retain the first 1.0 inch of rainfall onsite, using runoff reduction methods, to the maximum extent practicable. If it is infeasible to apply the stormwater runoff reduction standard on part or all of the project, the hardship must be documented with the site plan and review documents. In this case, the remaining runoff from a 1.2-inch rainfall event 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 Georgia Stormwater Management Manual or the City's Stormwater Management Manual.

b. The stormwater management system is to comply with the current Georgia Stormwater Management Manual;

c. 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

d. Runoff from hotspot land uses and activities identified by the city community development department are adequately treated and addressed through the use of appropriate structural stormwater controls, nonstructural practices and pollution prevention practices.

(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:

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

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

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

(3) *Overbank flooding protection.* Downstream overbank flood and property protection shall 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 under subsection (2) of this section is

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

(4) *Extreme flooding protection.* Extreme flood and public safety protection shall be provided by controlling (attenuating) the post-development peak discharge rate to the predevelopment rate for the 100-year, 24 hour return frequency storm event such that flooding is not exacerbated.

(5) Structural stormwater controls.

a. 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 the city community development department 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 city 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.

b. 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.

(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) of this section. The applicant may, if approved by the city community development department, 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.

(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 than one parcel, existing or proposed, shall meet the following requirements:

a. Methods to calculate stormwater flows shall be in accordance with the stormwater design manual;
b. 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
c. Design and construction of stormwater conveyance facilities shall 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 which proposes a dam shall comply with the Georgia Safe Dams Act of 1978 (O.C.G.A. § 12-5-370 et seq.) and Rules for Dam Safety as applicable.

(9) *Green infrastructure/low impact development design.* Green Infrastructure/Low Impact Development design shall conform to the City's Green Infrastructure/Low Impact Development Program.

ARTICLE V. - STREAM BUFFER PROTECTION

Section 109-116. – Definitions.

Stream means any rivers, streams, creeks, lakes, reservoirs, ponds, drainage systems, and other bodies of surface or subsurface water, natural and artificial, lying within or forming a part of the boundaries of the State which are not entirely confined and retained completely in an individual property, beginning at:

(1) The location of a spring, seep or groundwater outflow that sustains streamflow consisting of both base flow and direct runoff during any period of the year;
(2) A point in the stream channel with a drainage area of 25 acres or more; or
(3) Where evidence indicates the presence of a stream in a drainage area of other than 25 acres, the City of Johns Creek community development department may require field studies to verify the existence of a stream.

CHAPTER 113 – DEVELOPMENT REGULATIONS

Article VII. – PROCEDURES

Section 113-72. – Initiation of development activities

(1) Initial activities required. Following the approval of plans authorizing land disturbance of a site:

a. *Pre-construction meeting.* A pre-construction meeting shall be scheduled with the land development inspector assigned to the project prior to commencing any construction activities on the site. The developer shall provide the inspector a minimum of 24-hour notice to schedule the meeting. A permit for initial erosion and sediment control installation shall be issued if all permit conditions have been met.

b. *Installation of initial erosion and sediment control measures.*
1. Required erosion and sediment control measures must be installed per plan by the developer and prior to actual grading or removal of vegetation. Only tree removal

and grading necessary to install erosion control measures and sediment storage facilities are allowed under the initial erosion and sediment control permit.

2. Sediment storage facilities must be installed and operational prior to major tree removal and grading operations.

3. Areas required to be undisturbed by the zoning ordinance, stream buffer ordinance, floodplain management ordinance, conditions of zoning approval, Metropolitan River Protection Act or other ordinance or regulation shall be designated by tree save fence, silt fence, or other appropriate markings and shall be inspected and approved by the department prior to the commencement of any clearing or grading activities.

c. *Land Disturbance Permit Issuance.* The developer shall provide an inspection letter from the registered engineer who prepared the land disturbance permit plans, stating that all initial erosion and sediment control measures have been installed properly and undisturbed areas have been flagged. The City will then issue the land disturbance permit.

Article XI. – STREET DESIGN AND CONSTRUCTION REQUIREMENTS

Section 113-123. – Access

(11) *Inter-parcel access to Parks and Trail System.* Inter-parcel access through permanent easements shall be provided to connect developments to city parks when abutting the perimeter boundary of the property being developed, and to the recreational (multi-use) trail system as identified in the Johns Creek Transportation Master Plan. The developer shall be responsible for constructing the access easements (i.e. sidewalk or multi-use trail) and to record the permanent access easement pursuant to the requirements of the City. This section shall apply only to new developments processed through a Land Disturbance Permit and/or Final Plat.

ARTICLE XIII. – GRADING AND DRAINAGE

Section 113-166. – Stormwater Management

(7) *Allowable flow.* The allowable flow (AF) shall be calculated as: AF = (Existing Conditions Flow) - 0.5*(Development Ratio)*(Existing Conditions Flow - Natural Conditions Flow). The analysis shall include the 1-year, 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year storms. If the site has more than one discharge point, the allowable flow shall be calculated from each discharge point based on the area of the site draining to the discharge point.

Existing conditions flow shall be defined as the flow discharged from a site based on site conditions at the time the development permit is applied for. The existing conditions used to establish the flow rates and velocities shall include all on-site lakes, ponds, or detention facilities. Existing conditions flows shall be determined by routing the flows through these stormwater facilities.

Natural conditions flow shall be defined as the flow discharged from a totally forested site in good condition with a curve number of 55.

Development ratio shall be defined as the percentage of the site area to be developed divided by the total site area.

If it is determined by the director that the existing conditions downstream of the project site warrant further protection, the director shall require the existing conditions analysis to assume that the site is in totally forested and good condition with a curve number of 55.

(8) Hydrology report requirements. The stormwater management report shall comply with the city's stormwater management ordinance. In addition to the submittal requirements required by the stormwater ordinance the report shall include the following information when applicable:

a. Cover sheet signed and sealed in accordance with the stormwater management ordinance.
b. Table of contents.
c. Narrative summary.
d. Numerical summary, including flows and velocities.
e. Basin delineation maps (pre- and post-, tc flow paths, sub-basin CN).
f. Hydrograph input and output.
g. Routing input and output.
h. Stage-storage/ outflow relationships.
i. Outlet control details.
j. Water quality, channel protection, overbank flood protection, and extreme flood protection volumes.
k. Water quality spreadsheet.
l. Ten percent downstream analysis.
m. Channel/ditch calculations.
n. Pipe chart (shown on plans also).
o. Gutter spread calculations.
p. Downstream sediment analysis.

(9) Side slope and fencing requirements. All stormwater facilities shall be constructed with minimum 4:1 side slopes or fenced when the facility contains a permanent pool deeper than 18 inches or the 25-year maximum flood depth exceeds 18 inches (use a 24-hour duration for facilities designed using SCS methodology). The fence shall be a minimum of six feet high and made of a durable material with a ten-foot wide access gate. The fence shall comply with all applicable zoning requirements.

(10) Temporary facilities. Stormwater detention facilities shall be constructed in accordance with the approved plans and shall be in place and inspected prior to the initiation of other improvements. If the detention facility is planned to be a lake, micro pool or constructed wetland, temporary detention facilities shall be provided and shall remain in place until the feature has become a functional stormwater management facility.

(11) Redevelopment and the use of existing stormwater facilities.

a. When a development uses an existing facility where the last approved certification and record drawing of the facility was over 18 months prior to the new development's submittal, the engineer shall provide one of the following.

1. A new survey, drawing and certification showing that the outlet structure is constructed as approved and the flood storage and water quality volume of the facility is equal to or greater than the volume required when the facility was approved;
2. Construction plans and calculations showing that the outlet structure will function as designed and the flood storage and water quality volume of the facility will be equal to or greater than the volume required when the facility was approved once the proposed maintenance has been performed; or
3. A new record survey, drawing, study and certification showing that the facility meets the development requirements when the facility was approved.

b. When the development is part of a redevelopment strategy or the proposed development intends to use a master facility that does not meet current stormwater standards as established in the stormwater management ordinance, the following shall apply:

1. *Water Quality.* For redevelopment sites, water quality for the disturbed area shall be treated. The amount of additional water quality volume to be treated shall be the smaller of either a) the volume difference between total new site requirement and existing treatment capacity, or b) the volume solely pertaining to the site improvements.
2. *Channel Protection.* For redevelopment sites, channel protection for the disturbed area shall be provided. The amount of additional channel protection volume to be stored shall be the smaller of either a) the volume difference between total new site requirement and existing storage capacity, or b) the volume solely pertaining to the site improvements.
3. *Peak Flow.* The allowable peak flows shall be determined in accordance with Section 113-166(7).

(Signatures on following pages)

SO ORDAINED, this the 10th day of February, 2020.

Approved:

Michael E. Bodker, Mayor

ATTEST:

Joan C. Jones, City Clerk

Approved as to Form:

City Attorney