

GROUNDWATER RECHARGE AREAS

An Ordinance to Protect the Groundwater Recharge Areas of the City of Duluth, Georgia

I. Purpose

In order to provide for the health, safety, and welfare of the public and a healthy economic climate within the City of Duluth and surrounding communities, it is essential that the quality of public drinking water be ensured. For this reason, it is necessary to protect the subsurface water resources that City of Duluth and surrounding communities rely on as sources of public water.

Groundwater resources are contained within underground reservoirs known as aquifers. These aquifers are zones of rock beneath the earth's surface capable of containing or producing water from a well. They occupy vast regions of the subsurface and are replenished by infiltration of surface water runoff in zones of the surface known as groundwater recharge areas. Groundwater is susceptible to contamination when unrestricted development occurs within significant groundwater recharge areas. It is, therefore, necessary to manage land use within groundwater recharge areas in order to ensure that pollution threats are minimized.

II. Definitions

- A. Aquifer means any stratum or zone of rock beneath the surface of the earth capable of containing or producing water from a well.
- B. Drastic means the standardized system for evaluating groundwater pollution potential using the hydrogeologic settings described in U.S. Environmental Protection Agency document EPA-600-2-87-035. (Note: the DRASTIC methodology is the most widely used technique for evaluating pollution susceptibility).
- C. Pollution Susceptibility means the relative vulnerability of an aquifer to being polluted from spills, discharges, leaks, impoundments, applications of chemicals, injections and other human activities in the recharge area.
- D. Pollution Susceptibility Map means the relative vulnerability to pollution prepared by the Department of Natural Resources, using the DRASTIC methodology. (Georgia Department of Natural Resources Hydrologic Atlas 20: Groundwater Pollution Susceptibility Map of Georgia)
- E. Recharge Area means any portion of the earth's surface, where water infiltrates into the ground to replenish an aquifer.
- F. Significant Recharge Areas means those areas mapped by the Georgia Department of Natural Resources in Hydrologic Atlas 18 (1989 edition).

III. Establishment of the Groundwater Recharge Area Protection District

The Groundwater Recharge Area District is hereby established which shall correspond to all lands within the jurisdiction of the City of Duluth, Georgia that are mapped as significant recharge areas by the Georgia Department of Natural Resources in Hydrologic Atlas 18, 1989 edition. Said map is hereby adopted and made a part of this ordinance.

Determination of Pollution Susceptibility: Each recharge area shall be determined to have a pollution susceptibility of high, medium, or low based on the Georgia Pollution Susceptibility Map, Hydrologic Atlas 20, 1992 edition. Said map is hereby adopted and made a part of this ordinance.

A copy of both maps can be found in the offices of the Planning & Development Department.

IV. Protection Criteria

- A. No construction may proceed on a building or mobile home to be served by a septic tank unless the Gwinnett County Environment Health Department first approves the proposed septic tank installations as meeting the requirements of the Georgia Department of Human Resource for On-Site Sewage Management (hereinafter DHR Manual), and Sections B. and C. below.
- B. New homes served by a septic tank/drain field system shall be on lots having minimum size limitations as follows, based on application of Table MT-1 of the DHR Manual (hereinafter DHR Table MT-1). The minimums set forth in Table MT-1 may be increased further based on consideration of other factors (set forth in Sections A-F) of the DHR Manual.
 1. 150% of the subdivision minimum lot size calculated based on application of DHR Table MT-1 if they are within a high pollution susceptibility area;
 2. 125% of the subdivision minimum lot size calculated based on application of DHR Table MT-1 if they are within a medium pollution susceptibility area;
 3. 110% of the subdivision minimum lot size calculated based on application of DHR Table MT-1 if they are within a low pollution susceptibility area.
- C. New mobile home parks served by septic tank/drain field systems shall have lots or spaces having minimum size limitations as follows, based on application of Table MT-2 of the DHR Manual (hereinafter DHR Table MT-2). The minimums set forth in Table MT-2 may be increased further based on consideration of other factors (set forth in Sections A-F) of the DHR Manual.
 1. 150% of the subdivision minimum lot or space size calculated based on application of DHR Table MT-2 if they are within a high pollution susceptibility area;

2. 125% of the subdivision minimum lot or space size calculated based on application of DHR Table MT-2 if they are within a medium pollution susceptibility area;
 3. 110% of the subdivision minimum lot or space size calculated based on application of DHR Table MT-2 if they are within a low pollution susceptibility area.
- D. New agricultural waste impoundment sites shall be lined if they are within a high pollution susceptibility area; a medium pollution susceptibility area and exceed 15 acre-feet; or a low pollution susceptibility area and exceed 50 acre-feet. As a minimum, the liner shall be constructed of compacted clay having a thickness of one-foot and a vertical hydraulic conductivity of less than 5×10^{-7} cm/sec or other criteria established by the Natural Resource and Conservation Service.
- E. New above-ground chemical or petroleum storage tanks, having a minimum volume of 660 gallons, shall have secondary containment for 110% of the volume of such tanks or 110% of the volume of the largest tank in a cluster of tanks. Such tanks used for agricultural purposes are exempt, provided they comply with all federal requirements.
- F. New facilities that handle hazardous materials of the types listed in section 312 of the Resource Conservation and Recovery Act of 1976 (excluding underground storage tanks) and in amounts of 10,000 pounds or more on any one day, shall perform their operations on impervious surfaces and in conformance with any applicable federal spill prevention requirements and local fire code requirements.
- G. Permanent storm water infiltration basins shall not be constructed in areas having high pollution susceptibility.

V. Exemptions

- A. Any lot of record approved prior to the adoption of this ordinance is exempt from the minimum lot size requirements contained in Sections IV.B. and C. of this ordinance.

ADMINISTRATION AND ENFORCEMENT

VI. Administration and Enforcement Procedures

- A. **Site Plans.** Application for a local development permit within the jurisdiction of the City of Duluth shall include a site plan, drawn at a scale of 1" = 50', with the following information:
- a. A map of all planned excavation and fill, including calculations of the volume of cut and fill involved, cross-sectional drawings showing existing and proposed grades. Elevations, horizontal scale and vertical scale must be shown on the cross-sectional drawings.
 - b. A map of any wetland boundaries occurring within the site must be provided. This boundary may be included on other maps provided by the applicant.

- c. Location, dimensions and area of all impervious surfaces, both existing and proposed, on the site and adjacent to the site for a distance of 50 feet.
- d. The orientation and distance from the boundaries of the proposed site to the nearest bank of an affected perennial stream or water body.
- e. Elevations of the site and adjacent lands within 50 feet of the site at contour intervals of no greater than two feet; and no greater than one foot for slopes less than or equal to two percent.
- f. Location and detailed design of any spill and leak collection systems designed for the purpose of containing accidentally released hazardous or toxic materials.
- g. All proposed temporary disruptions or diversions of local hydrology.

B. Activities to Comply with Site Plan. All development activities or site work conducted after approval of the site plan shall conform to the specifications of said site plan. Significant changes to the site plan that would alter the amount and velocity of storm water runoff from the site, increase the amount of impervious surface within the development, alter the overall density of development, result in a considerable increase in the amount of excavation, fill or removal of the overall appearance of the development as proposed, can be amended only with the approval of the Director of Planning and Development. Minor changes, such as the realignment of streets or minor alterations to drainage structures and other infrastructure to meet unexpected conditions are exempted from this requirement.

C. Exemptions to Site Plan Requirements. The following activities and developments are exempt from the requirement for detailed site plans.

- 1. Single family detached homes constructed within a subdivision of fewer than five parcels.
- 2. Repairs to a facility that is part of a previously approved and permitted development.
- 3. Construction of minor structures, such as sheds or additions to single family residences.

D. Review Procedures. The application shall be made to the City of Duluth Planning and Development Department and will be reviewed within 15 (fifteen) days. At the time of the application, the applicant shall pay a filing fee as specified by City of Duluth Planning and Development Department. Filing fees up to the largest of \$500 or \$1000 per acre may be required to evaluate the application. This fee may be used to retain expert consultants who will provide services pertaining to functional assessment, mitigation, and wetland boundary determinations, as deemed necessary by the Director of Planning and Development. The review period shall include the preparation of findings (approval, approval with conditions, or disapproval) by the Director of Planning and Development. The applicant will receive written notification of the findings of the Director of Planning and Development. If the review process is not completed within 30 days, the application is considered to be approved. Decisions of the Director of Planning and Development may be appealed to the

City Council.

E. Duration of Permit Validity.

1. If construction described in the development permit has not commenced within 6 months from the date of issuance, the permit shall expire.
2. If construction described in the development permit is suspended or abandoned after work has commenced, the permit shall expire 6 months after the date that work ceased.
3. Written notice of pending expiration of the development permit shall be issued by the Director of Planning and Development.

F. Penalties.

- a. When a building or other structure has been constructed in violation of this section, the violator may be required to remove the structure at the discretion of the Director of Planning and Development.
- b. When removal of vegetative cover, excavation, or fill has taken place in violation of this section, the violator may be required to restore the affected land to its original contours and to restore vegetation, as far as practicable, at the discretion of the Director of Planning and Development.
- c. If the Director of Planning and Development discovers a violation of this ordinance that also constitutes a violation of any provision of the Clean Water Act as amended, the City Council shall issue written notification of the violation to the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers, and the landowner.

G. Suspension, Revocation. The Director of Planning and Development may suspend or revoke a permit if he finds that the applicant has not complied with the conditions or limitations set forth in the permit or has exceeded the scope of the work set forth in the permit. The Director of Planning and Development shall cause notice of denial, issuance, conditional issuance, revocation or suspension of a permit to be published in a daily newspaper having a broad circulation in the area where the wetland is located.

H. Judicial Review.

- a. Jurisdiction. All final decisions of the City of Duluth concerning denial, approval or conditional approval of a permit shall be reviewable in the Gwinnett County Superior Court.
- b. Alternative Actions. Based on these proceedings and the decision of the City of Gwinnett County Superior Court, the City Council or its designee may, within the time specified by the Gwinnett County Superior Court, elect to:
 1. Institute negotiated purchase or condemnation proceedings to acquire an easement or fee interest in the applicant's land;
 2. Approve the permit application with lesser restrictions or conditions (i.e., grant a variance); or

3. Institute other appropriate actions ordered by the court that fall within the jurisdiction of the City Council.

I. Amendments. These regulations and the Pollution Susceptibility Map may from time to time be amended in accordance with procedures and requirements in the general statutes and as new information becomes available.

J. Separability and Abrogation. All sections and subsections of this ordinance are considered separate and distinct. Should any section, subsection, paragraph or part of this ordinance be declared by a court of jurisdiction to be invalid for any reason, it shall not invalidate any other section, subsection, paragraph, or part of this ordinance.

APPROVED by the Mayor and Council of the City of Duluth, this 9th day of October, 2000.

Mayor Shirley Fanning-Lasseter

Those council members voting in favor:

Those council members voting in opposition:

ATTEST:

Teresa S. Lynn, City Clerk