

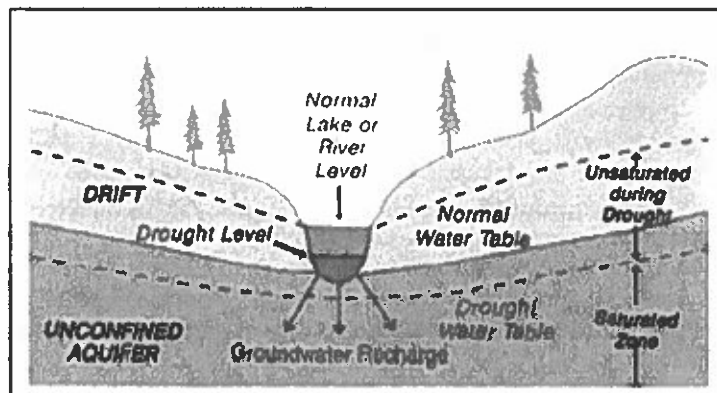
## Article VI - Protect Groundwater Recharge Areas

This ordinance shall be known and may be cited as an “Ordinance to Protect Groundwater Recharge Areas.”

### Sec. 82 – 290 PURPOSE AND INTENT

Groundwater is among the Nation's most important natural resources. It provides drinking water to urban and rural communities, supports irrigation and industry, sustains the flow of streams and rivers, and maintains riparian and wetland ecosystems. In many areas of the Nation, the future sustainability of ground-water resources is at risk from over use and contamination. Because groundwater systems typically respond slowly to human actions, a long-term perspective is needed to manage this valuable resource. This ordinance is intended to implement rules of the Georgia Department of Natural Resources' Environmental Protection Division known as the “Rules for Environmental Planning Criteria” as they specifically relate to groundwater recharge areas (Rule 391-3-16-.02). It is essential to the health, safety, and welfare of the public that the quality of subsurface public drinking water be maintained.

Groundwater resources exist in underground reservoirs known as aquifers. These aquifers are zones of rock beneath the earth's surface that are capable of providing water for 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 development occurs within groundwater recharge areas. Certain land use activities, such as septic tanks, underground tanks, and chemical spills, pose a significant threat to the quality of groundwater supplies. Therefore, it is necessary to manage land uses within groundwater recharge areas in order to ensure that pollution threats and development impacts are minimized. To this end, this ordinance establishes minimum lot sizes to provide for the orderly and safe development of property utilizing on-site sewage management systems.



**Recharge of Groundwater from Surface Water  
During Normal and Drought Conditions**

Source: <http://metro council.org/planning/wrfig08.htm>

### Sec. 82 - 291 DEFINITIONS

**Acre-foot:** The volume (as of irrigation water) that would cover one acre to a depth of one foot.

**Aquifer:** Any stratum or zone of rock beneath the surface of the earth capable of containing or providing water for a well.

**DRASTIC:** 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).

**Hydrologic Atlas 18:** A map prepared by the Georgia Department of Natural Resources (DNR) and published by the Georgia Geologic Survey in 1989, which identifies the most significant groundwater recharge areas of Georgia as spotted areas labeled as “areas of thick soils.” (See Figure).



**Excerpt from Hydrologic Atlas 18**

**Hydrologic Atlas 20:** A multicolored map of Georgia at a scale of 1:500,000, prepared by the Georgia DNR using the DRASTIC methodology and published by the Georgia Geologic Survey in 1992, which shows areas of high, average (or medium), and low susceptibility of groundwater to pollution in Georgia. This map is also commonly known as the Groundwater Pollution Susceptibility Map of Georgia.

**Pollution susceptibility:** 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. Each significant recharge area shown on Hydrologic Atlas 18 is classified on Hydrologic Atlas 20 as high, medium, or low, and these classifications are relevant in this ordinance.

**Recharge Area:** Any portion of the earth's surface where water infiltrates into the ground to replenish an aquifer.

**Significant Recharge Areas:** Those areas mapped by the Georgia DNR in Hydrologic Atlas 18 (1989 edition) within the City of Rincon. Each significant recharge area shall be determined to have a pollution susceptibility of high, medium, or low based on Hydrologic Atlas 20.

## **Sec. 82-292     ADOPTION OF HYDROLOGIC ATLAS 18 BY REFERENCE**

Hydrologic Atlas 18, as defined by this ordinance is hereby adopted and made a part of this ordinance as if fully set forth herein.

**Sec. 82-293     ADOPTION OF HYDROLOGIC ATLAS 20 BY REFERENCE**

Hydrologic Atlas 20, as defined by this Ordinance is hereby adopted and made a part of this Ordinance as if fully set forth herein.

**Sec. 82-294     APPLICABILITY**

This ordinance shall apply to all lands within the City of Rincon that are mapped as significant recharge areas as defined by this ordinance.

**Sec. 82-295     PERMIT REQUIRED**

No land use permit or building permit shall be issued by the Building Official for a building, structure, or manufactured home to be served by a septic tank, unless the land use or building conforms to the requirements of this ordinance. Prior to a land use permit or building permit being issued, the Building Official shall require a site plan or subdivision plat in sufficient detail to review the proposed development for compliance with the provisions of this ordinance.

**Sec. 82-296     MINIMUM LOT SIZE**

Within an area governed by this ordinance, new homes or land uses served by a septic tank/drain field system shall be on lots having minimum lot sizes as follows, based on application of Table MT-1 of the Georgia Department of Human Resources Manual for On-Site Sewage Management Systems (hereinafter DHR Manual). The minimums set forth in Table MT-1 of the DHR Manual (hereinafter DHR Table MT-1) may be increased further based on consideration of other factors set forth in Sections A-F of the DHR Manual, as determined by the Effingham County Health Department.

- (a) 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.
- (b) 125% of the subdivision minimum lot size calculated based on application of DHR Table MT-1 if they are within an average or medium pollution susceptibility area.
- (c) 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.

Any lot of record approved prior to the adoption of this ordinance shall be exempt from the minimum lot size requirements of this section. Within an area governed by this ordinance, no subdivision plat shall be recorded until and unless said plat has been reviewed and approved by the Building Official as being in compliance with the minimum lot sizes established by this section.

**Sec. 82-297     MOBILE HOME PARKS**

Within an area governed by this ordinance, new mobile home parks served by septic tank/drainfield systems shall have lots or spaces having minimum areas in square feet 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, as determined by the Effingham County Health Department.

- (a) 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;
- (b) 125% of the subdivision minimum lot or space size calculated based on application of DHR Table MT-2 if they are within an average or medium pollution susceptibility area;

- (c) 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.

Within an area governed by this ordinance, no site plan for a mobile home park or manufactured home park shall be considered valid until and unless said site plan has been reviewed and approved by the Building Official as being in compliance with the minimum space sizes established by this section.

#### **Sec. 82-298     AGRICULTURAL WASTE IMPOUNDMENT SITES**

New agricultural waste impoundment sites in a significant recharge area, as specified below, shall contain a liner consisting of compacted clay having a thickness of one-foot and a vertical hydraulic conductivity of less than  $5 \times 10^{-7}$  cm/sec or other criteria established by the Natural Resource and Conservation Service:

- (a) Any agricultural waste impoundment site located in a high pollution susceptibility area;
- (b) Any agricultural waste impoundment site within an average or medium pollution susceptibility area which exceeds 15 acre-feet; or,
- (c) Any agricultural waste impoundment site within a low pollution susceptibility area that exceeds 50 acre-feet.

#### **Sec. 82-299     ABOVE GROUND CHEMICAL OR PETROLEUM STORAGE TANKS**

Within an area governed by this ordinance, 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.

#### **Sec. 82-300     HAZARDOUS MATERIALS HANDLING FACILITIES**

Within an area governed by this ordinance, 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 any adopted City or applicable fire code requirements.

#### **Sec. 82-301     STORMWATER INFILTRATION BASINS**

Permanent storm water infiltration basins shall not be constructed in significant recharge areas having high pollution susceptibility.

#### **Sec. 82-302     LIMIT IMPERVIOUS AREAS**

Limiting land disturbance and the amount of impervious and disturbed pervious cover created on development sites through the use of better site design techniques is required to the maximum extent practical in accordance with the latest edition of the Coastal Stormwater Supplement to the Georgia Stormwater Management Manual, and any relevant local addenda (CSS Manual). Full Stormwater Management and Site Planning and Design Criteria shall be provided in accordance with the CSS Manual.

When seeking a reduction in the amount of stormwater runoff reduction that needs to be provided in order to satisfy this criteria, applicants shall:

- (1) Use better site design techniques and green infrastructure practices that provide for the interception, evapotranspiration, or infiltration, to provide the minimum amount of stormwater runoff reduction specified in the CSS Manual; and,**
- (2) Provide adequate documentation to the City to show that no additional runoff reducing better site design techniques and green infrastructure practices can be used on the development site.**
- (3) Provide appropriate and equivalent off-site mitigation in lieu of on-site compliance.**