

County Min. Standards

DIVISION 2. - STORMWATER MANAGEMENT

Footnotes:

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Cross reference— *Stormwater management, app. A, § 801 et seq.*

Sec. 50-101. - Definitions.

For the purpose of this division the following words shall be defined as provided in section 50-71:

Agricultural use.

Applicant.

Aquifer.

Artificial drainage system.

Clearing.

Discharge.

Drainage system, natural drainage system.

Existing.

Groundwater.

Hydrograph.

Land.

Local government.

Lot.

Municipality.

Person.

Project.

Recharge.

Structure.

Subdivision.

Water detention structure, water management structure.

Water retention structure.

(Ord. No. 88-15, § 200.00, 5-19-88)

Cross reference— Definitions and rules of construction generally, § 1-2.

Sec. 50-102. - Penalty.

Violations of this division are punishable as provided in section 1-7.

Sec. 50-103. - Purpose, objectives and intent.

- (a) *Purpose.* The county council has determined that the preservation of the water resources of the county is critical to the public health, safety and welfare. Uncontrolled stormwater runoff causes erosion, sedimentation and flooding and prevents recharge of the aquifer upon which the public depends for potable, fresh water. The county council finds it is necessary to impose these minimum standards to control stormwater runoff and conserve the water resources of the county.
- (b) *Objectives.* The requirements in this division will allow landowners reasonable use of their property while promoting the following objectives:
- (1) Protect the quantity and quality of groundwater and surface water;
 - (2) Prevent the lowering of existing groundwater table elevations to the detriment of these other stated objectives;
 - (3) Perpetuate recharge into the groundwater system;
 - (4) Prevent and reduce saltwater intrusion;
 - (5) Minimize the production of nuisance and disease vectoring mosquitoes;
 - (6) Discourage reliance on drainage systems which depend on the use of electrical energy or petroleum fuels to move water, remove pollutants or maintain the systems;
 - (7) Reduce wind- or water-caused erosion, loss of valuable topsoils and subsequent sedimentation of surface waterbodies;
 - (8) Alleviate downstream flood hazards;
 - (9) Prevent significant loss of life and property due to runoff from any foreseeable rainfall event;
 - (10) Reduce the capital expenditures associated with floodproofing and the installation and maintenance of storm drainage systems;
 - (11) Minimize the adverse impact of development on the water resources of the county; and
 - (12) Maximize protection of class II waters.
- (c) *Intent.* This division is intended to allow landowners reasonable use of their property provided stormwater runoff peak rates and volumes and the quality of stormwater retained after development shall approximate existing predevelopment conditions and precautions will be taken to prevent erosion, sedimentation and flooding.

(Ord. No. 88-15, §§ 200.01—200.04, 5-19-88)

Sec. 50-104. - Adoption of standards by municipalities.

The governing body of each municipality in the county shall, no later than September 1, 1997, submit

to the county council its amended ordinance containing the standards in this division for compliance review by the county council. However, prior to this date, a municipality may elect to authorize the county to administer article VIII, pertaining to stormwater management, of the county land development code, Ordinance No. 88-3 (appendix A to this Code), within said municipality. Thereafter, the county council shall review said ordinance for compliance with this division and, after said review, inform the municipality as to whether or not said municipal ordinance is in compliance with this division. Notwithstanding any other provision of this division or the county land development code to the contrary, if such ordinance of the municipality is not enacted or submitted on this date, or is not in compliance with this division, the county council may enforce article VIII, pertaining to stormwater management, of the county land development code, in said municipality, or may enforce this provision as provided in section 50-75.

(Ord. No. 88-15, § 207.00, 5-19-88; Ord. No. 97-5, § 1, 2-6-97)

Sec. 50-105. - Prohibited acts; exemptions.

(a) *Prohibited acts.* Acts that require a permit:

- (1) No person may develop or make any change in the use of land or construct a structure or change the size of a structure, except as exempted in subsection (b) of this section, without first obtaining a permit which meets the minimum environmental protection standards set out in this division.
- (2) No building permit, development order or other form of construction approval shall be granted without the prior approval by the local government, of plans exhibiting the methods by which these minimum environmental protection standards shall be met.
- (3) For the purposes of this section, the following development may potentially alter or disrupt existing stormwater runoff patterns, and, as such, will, unless exempt pursuant to subsection (b) of this section, require a permit prior to the commencement of construction:
 - a. Clearing and/or draining of land as an adjunct to construction;
 - b. Clearing and/or draining of nonagricultural land for agricultural purposes;
 - c. Converting agricultural lands to nonagricultural uses;
 - d. Subdividing land;
 - e. Replatting recorded subdivisions and the development of recorded and unrecorded subdivisions;
 - f. Changing the use of land and/or the construction of a structure, or a change in the size of one or more structures;

- g. Altering the shoreline or bank of any surface water body;
- h. Filling of depressional areas; and
- i. The lowering of the water table.

(b) **Exemptions.** The following activities may be exempt from these standards:

- (1) Single-family and duplex residences and accessory structures.
- (2) Bona fide agricultural pursuits, including forestry, except where an artificial drainage system will be used to increase the flow of surface water from the applicant's land.
- (3) Maintenance work performed on existing mosquito control drainage canals for the purpose of public health, safety and welfare.
- (4) Maintenance work on utility or transportation systems, provided such maintenance work does not alter the purpose and intent of the drainage system as constructed.
- (5) Any maintenance, alteration, renewal, use or improvement to an existing structure not changing or affecting rate or volume of stormwater runoff.
- (6) Publicly owned landfills permitted under state regulations.
- (7) The one-time construction of any structure or addition not otherwise exempt and does not exceed 4,000 square feet of impervious or semi-impervious surface area subject to vehicular traffic. This area includes roads, parking lots, driveways, and loading zones;
- (8) Construction which does not exceed 5,000 square feet of building area or other impervious area not subject to vehicular traffic.

**Maintenance
Activities**

(Ord. No. 88-15, §§ 201.00—201.02, 5-19-88; Ord. No. 97-5, § II, 2-6-97)

Sec. 50-106. - Development categories.

For the purposes of this division, developments requiring a permit application shall be filed with the local government.

(Ord. No. 88-15, § 203.00, 5-19-88; Ord. No. 97-5, § III, 2-6-97)

Sec. 50-107. - Performance standards; runoff computations.

(a) *Performance standards.*

- (1) *Generally.* Performance standards to be followed in the design of lesser or standard development projects are as follows:
 - a. Stormwater runoff shall be subjected to best management practice prior to discharge into natural or artificial drainage systems. For purposes of this section, the term "best management practice" shall mean a practice, or combination of practices, determined

by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the project to a level compatible with state water quality standards found in chapter 17-3, Florida Administrative Code.

b. **Site alteration activities.**

1. No site alteration shall cause siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention or filtering capabilities of wetlands.
2. No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.
3. All site alteration activities shall provide for such water retention and settling structures and flow attenuation devices as may be necessary to ensure that the standards and requirements of this subsection are met.

c. Design of water retention or detention structures and flow attenuation devices shall be subject to the approval of the local government pursuant to the standards of this division. **Detention structures** should be **designed to release runoff** to the downstream drainage system **over a period of time so as not to exceed the capacity of the existing downstream system.** The local government shall establish minimum side slope standards for open retention and detention areas (ponds, etc.) in accordance with the objectives of this division.

d. A positive drainage system shall be provided which will not adversely impact downstream owners or adjacent lands.

e. Where possible, natural vegetation shall be used as a component of drainage design. The water table should not be manipulated so as to endanger natural vegetation beneficial to water quality unless natural vegetation can be replanted and survive with a lowered water table condition.

f. Runoff from higher adjacent lands shall be considered, and provisions for conveyance of such runoff shall be included in the drainage plan.

g. Runoff shall be treated to remove oil and floatable solids before discharge from the site in a manner approved by the local government.

h. Erosion by wind or water shall be prevented throughout the construction process.

i. Direct discharge to class II waters is prohibited. A workable filter system must be provided prior to any discharge to class II waters.

j. For the purpose of this division, it is presumed that the lowering of the water table for the purpose of constructing detention/retention basins and for the purpose of permanently protecting road construction does not conflict with the stated objectives of this division if all of the following are met:

1. The development site is not in an area known to the local government, based on data collected and interpreted by the U.S. Geological Survey, the St. Johns River Water Management District, the county or municipal engineers, and other professional investigators, as important to recharge or to prevention of discharge of the Floridan Aquifer.
 2. The proposed lowering of the water table shall be no more than 15 percent of the site to a depth of five feet below the surface of the existing undisturbed ground, or an equivalent volume, provided that there be a maximum depth of five feet, said area to be measured at the overflow elevation of the retention area.
 3. If ditches, underdrains or similar devices are used to lower the water table, the lateral volumetric effect will be calculated, and the volume will be deducted from that allowed for retention areas.
 4. The high-water table may be lowered up to two feet below the undisturbed ground in the vicinity of roads for the purpose of protecting the subbase and base of the roadway and/or for the purpose of preventing mosquito breeding in the roadside swales.
 5. The lowering of the water table has no adverse effect on wetlands.
 6. The lowering of the water table does not increase flows to the detriment of neighboring lands.
- (2) The following additional performance standards are to be followed in the design of the project: The minimum volume of retention to be provided shall be equivalent to one-half inch of depth over the entire project area. For certain soil conditions or groundwater table conditions which do not permit the percolation of this volume within the five days following a storm event, the local government may approve detention with the filtration systems in lieu of retention.
- (3) The discharge hydrograph produced for the developed or redeveloped site shall not exceed, in terms of peak flow and total volume, the hydrograph produced by conditions existing before development or redevelopment for a 24-hour, 25-year frequency storm unless the intent of this recharge provision will be met through detention of the difference between said volumes, in which case said volume difference may be released over not less than a 24-hour and not greater than a 72-hour period of time. However, the design standards for wet retention areas, when approved by the local government, shall prevail. This requirement may be waived by the local government for sites consisting predominately of poorly drained soils having permanently and naturally impaired recharge potentials. However, the runoff from the first one inch of rainfall for each storm falling on all areas of the project shall be retained on the site except in cases where the local

government concurs that soil and/or groundwater table conditions are not conducive to such practice, in which case said first inch shall be detained and released over a period of 24 to 72 hours, in a manner acceptable to the local government. However, in the case of wet detention, standards approved by the local government shall prevail. In addition, the cumulative impact of the outflow hydrograph on downstream flow shall be considered.

Runoff rates and volumes resulting from the project, in excess of existing amounts, shall be accommodated on the site. Off-site retention may be permitted if, in the opinion of the local government, the recharge requirements of this division are met.

- (b) *Runoff computations.* Runoff computations shall be based on the most critical situation (rainfall duration, distribution and antecedent soil moisture condition) and conform to acceptable engineering practices using rainfall data and other local information applicable to the affected area.

(Ord. No. 88-15, §§ 204.00, 204.01, 5-19-88; Ord. No. 97-5, § IV, 2-6-97)

Sec. 50-108. - Maintenance of installed systems.

The installed systems required by this division shall be maintained by the owner, except that the local government may accept certain systems for maintenance. The systems to be maintained by the owner shall have adequate easements to permit the local government to inspect and, if necessary, to take corrective action should the owner fail to maintain the systems. Should the owner fail to properly maintain the systems, the local government shall give such owner written notice of the nature of the corrective action necessary. Should the owner fail, within 30 days from the date of the notice, to take, or commence taking, the necessary corrective action, the local government may enter upon the property, take corrective action, and place a lien on the property of the owner for the costs thereof.

(Ord. No. 88-15, § 205.00, 5-19-88)

Sec. 50-109. - Emergency work.

This division shall not be construed to prevent the doing of any act necessary to prevent material harm to, or destruction of, real or personal property as a result of a present emergency, including but not limited to fire, infestation by pests, or hazards resulting from violent storms or hurricanes, or when the property is in imminent peril and the necessity of obtaining a permit is impractical and would cause undue hardship in the protection of the property.

(Ord. No. 88-15, § 206.00, 5-19-88)

Secs. 50-110—50-130. - Reserved.