

ARTICLE II. - STORMWATER MANAGEMENT^[5]

Footnotes:

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Editor's note— Ord. No. 2010-17, § 1, adopted May 3, 2010, repealed the former Art. II, §§ 73.20, 73.21, and enacted a new Art. II as set out herein. The former Art. II pertained to drainage and derived from Ord. 84-15, § 1, adopted July 3, 1984.

Sec. 73.21. - Purpose.

The purpose of this article is to protect the public's health, safety, and welfare through control of stormwater runoff, minimizing impact on existing city, county, and/or state drainage facilities, assuring no illicit discharges to the city's Municipal Separate Storm Sewer System (MS4) and protecting and enhancing surface water, groundwater, and other natural resources of the City of Vero Beach in accordance with the city's comprehensive plan and mandates established by the State of Florida.

(Ord. No. 2010-17, § 1, 5-3-2010)

Sec. 73.22. - Stormwater management requirements.

- (a) *Applicability.* Except as authorized by a certificate to dig, pursuant to [chapter 76](#), historic preservation, any land disturbing activity that involves excavation, placement of fill, grading, altering of runoff patterns, or an increase in the amount of impervious cover shall be subject to the requirements of this article. The provisions of this article shall not apply to activities typically associated with landscaping, except where such landscaping may redirect or increase off-site runoff to adjacent properties or adversely impact a city-approved stormwater system.
- (b) *Prohibition of land disturbing activity on vacant lands.* Excavation, placement of fill, grading, or the altering of runoff patterns on vacant lands is prohibited, except as allowed with a valid permit issued for the establishment of a use or structure.
- (c) *Stormwater management plan requirement.* No excavation, placement of fill, foundation construction, grading, or altering of runoff patterns shall take place prior to approval of a stormwater management plan pursuant to this article.
- (d) *Development requiring site plan approval.* No site plan shall be approved or building permit issued for development that includes any land disturbing activities set forth in (a) above without an approved stormwater management plan.
- (e) *Consistency with local, state, and federal permitting requirements.* No stormwater management plan for any development site subject to the jurisdictional authority of the Florida Department of Environmental Protection, St. John's River Water Management District, or any other agency having jurisdiction over stormwater management systems shall be approved or an approved site plan released unless it meets the stormwater management criteria and permitting requirements of that agency and this article.

(Ord. No. 2010-17, § 1, 5-3-2010)

Sec. 73.23. - Stormwater management plan application requirements.

Stormwater management plans required by this article shall be submitted to the planning and development department in conjunction with the application for site plan approval pursuant to part III, [chapter 64](#) of this Code. The format and specific information required for stormwater management plans shall be prescribed by the city engineer. The city engineer shall have authority to waive any prescribed plan information requirement for a specific project where he has determined, in his professional opinion and based on good engineering practices, the waiver does not inhibit proper stormwater management and compliance with the requirements of this article.

(Ord. No. 2010-17, § 1, 5-3-2010)

Sec. 73.24. - General stormwater management design criteria.

All stormwater management plans submitted pursuant to this article, except as provided for herein, shall comply with the following design criteria:

- No surface runoff shall be directed to adjacent properties.
- (1) (2) Surface runoff overflow shall be directed to a city-approved stormwater management facility where available or to public right-of-way where such facilities are unavailable, subject to approval by the city engineer.
 - (3) Discharges to the Indian River Lagoon or any surface water that connects with that body of water or discharges to wetlands shall be conveyed through indirect means by use of vegetated overflow and spreader swales or other similar measures approved by the city engineer.
 - (4) Within special flood hazard areas, grading and site alteration shall not result in any adverse impacts on flood protection or storage capacity. Flood storage capacity shall be created in an amount equal to at least that volume of the 100-year base flood displaced by fill, except in areas within the Category I storm surge zone as established by the most current run of a Sea, Lake, and Overland Surges for Hurricanes (SLOSH) computerized model by the State of Florida.
 - (5) All earthen slopes shall be of no steeper ratio than four-foot horizontal to one-foot vertical.
 - (6) Specific measures shall be in place during construction to ensure effective control of erosion and sedimentation pursuant to article III of this chapter. Control measures shall be installed and stabilized between the areas to be altered, graded, cleared and prepared for development and any potential receiving waters and adjacent properties.

(Ord. No. 2010-17, § 1, 5-3-2010)

Sec. 73.25. - Single-family and duplex stormwater management plan design criteria.

- (a) *New single-family and duplex residences.* All new single-family and duplex residences shall require a stormwater management plan approved by the city engineer that complies with the following minimum design criteria, as applicable:
 - (1) Where a city-approved stormwater management system with sufficient capacity exists, stormwater shall be directed to the city right-of-way or a drainage facility approved by the city engineer. Any development that proposes to place impervious area over more than 3,000 square feet shall be required to retain or detain the first 1.0 inch of rainfall for the impervious surface area exceeding 3,000 square feet.
 - (2) Where no public or city-approved stormwater system exists or the existing system does not have sufficient capacity, as determined by the city engineer, a minimum of the first 1.0 inch of rainfall over the impervious area on site shall be required to be retained or detained on site prior to discharge to the city right-of-way or a drainage facility approved by the city engineer.
- (b) *Existing single-family and duplex residences.* All existing single-family and duplex residences shall require a stormwater management plan approved by the city engineer that complies with the following minimum design criteria, as applicable.
 - (1) Any non-substantial improvement to existing single-family and duplex residences or other land disturbing activities set forth in subsection [73.22\(a\)](#) that will result in an increase of less than 500 square feet of impervious surface area shall be subject to the general stormwater management design criteria in [section 73.24](#).
 - (2) Any substantial improvements to existing single-family or duplex residences or any site improvements that will result in an increase of 500 square feet or more of impervious surface area shall require a stormwater management plan that complies with the design criteria in subsection (a)(1) or (a)(2) above, as applicable.

(Ord. No. 2010-17, § 1, 5-3-2010)

Sec. 73.26. - Non-residential, multiple family, and new subdivision development stormwater management plan criteria.

- (a) *New non-residential, multiple family and subdivision development.* All new non-residential, multiple family, and major subdivisions involving the creation of additional lots as defined in chapter 70, subdivisions, of this Code, shall require a stormwater management plan, prepared by a Florida licensed professional engineer and approved by the city engineer, that complies with the minimum design criteria of (c) below.
- (b) *Existing non-residential and multiple family development.* Any modifications to existing non-

residential and multiple family principal buildings and accessory structures that will increase the amount of impervious surface area or any other land disturbing activities set forth in subsection [73.22\(a\)](#) shall be subject to the following minimum design criteria:

- (1) Substantial improvements to existing principal buildings shall require compliance with the specific design requirements of subsection (c) below to the maximum extent practical as determined in the professional opinion of the city engineer, taking into account site constraints, the construction costs of the proposed improvements compared to the construction costs of the needed stormwater management system improvements, and other factors that he may determine to be relevant.
 - (2) Any land disturbing activities as set forth in subsection [73.22\(a\)](#) that will result in an increase of more than 1,500 square feet of impervious surface area shall require compliance with the specific design requirements of (c) below to address that portion of stormwater runoff that will result from the additional impervious surface area.
 - (3) Non-substantial improvements to existing principal buildings and, improvements to accessory structures or any other land disturbing activities as set forth in subsection [73.22\(a\)](#) that will result in an increase in the amount of impervious surface area of 1,500 square feet or less shall be subject to the general stormwater management design criteria in [section 73.24](#).
- (c) *On-site stormwater management plan and facilities.* Stormwater management plans and stormwater facilities shall comply with the following minimum design criteria:
- (1) *Overall minimum stormwater management facilities design criteria.*
 - a. The stormwater management facilities shall comply with the minimum design requirements of the St. Johns Water Management District, pursuant to Chapter 40C-42, F.A.C., incorporated herein by reference, in addition to the minimum requirements of this section.
 - b. Should the stormwater management facilities design requirements of the federal or state agencies having jurisdiction over stormwater management systems be more stringent than the minimum requirements of this section, then the requirements of such agencies shall prevail.
 - (2) *Stormwater quantity.*
 - a. *Design storm event:* A minimum of 25-year and mean annual reoccurring storm event of 24-hour duration.
 - b. *Design rainfall distribution:* SJRWMD Type II FL Modified or other distribution approved by the city engineer.
 - c. *Inflow hydrograph method:* Rational, SCS, Santa Barbara, or other method approved by the city engineer, as selected by the Florida licensed professional engineer preparing the stormwater management plan.
 - d. *Total volume:* Site must detain or retain the stormwater runoff volume required to meet water quality and maximum discharge allowance criteria.
 - e. *Maximum discharge rate:* Post-development peak discharge rate and stormwater runoff volume shall not exceed the predevelopment peak discharge rate and stormwater runoff volume.
 - f. *Percolation test:* A percolation test is required using a method approved by the city engineer.
 - (3) *Stormwater quality.* All development sites pursuant to this section shall be designed to retain or detain the first 1.5 inches of rainfall on-site before discharge into a city-approved outfall to the Indian River Lagoon or any surface waters connecting with that aforementioned water body.
 - (4) *Discharge structures.* Skimming devices or weirs, or a combination thereof, shall be required where deemed necessary by the city engineer, in his professional opinion and based on good engineering practices. The design of such discharge structures shall be approved by the city engineer.
 - (5) *Stormwater management facilities design criteria.*
 - a. *Slope vegetation:* Side slopes shall be covered completely with sod.
 - b. *Industrial uses:* Connections from industrial uses to public stormwater facilities shall only be allowed after approval by the city engineer. The city engineer's decision shall be based upon an evaluation of the projected quantity and quality of discharge from the

industrial site and any other relevant factors to determine the compatibility of the proposed discharge with the city's MS4 and impacts on the water quality and beneficial uses of receiving surface waters. In approving the connection to the city's MS4, the city engineer may place reasonable conditions and requirements on the approved stormwater management plan to ensure compatibility with the city's stormwater system and minimize potential impacts on water quality and beneficial uses of receiving surface waters.

- c. *Stormwater management facilities completion requirements:* No changes to the approved stormwater management plan shall be allowed except in accordance with the standards and procedures for amending site plans. After completion of the stormwater management facilities and prior to issuance of a certificate of occupancy or a final completion inspection, the design engineer of the stormwater management plan shall submit to the public works department a sealed certification attesting that the stormwater management facilities have been constructed in accordance with the approved stormwater management plan. No certificate of occupancy shall be issued or final inspection completed without receipt of this sealed certification by the public works department.
- d. *Easements:* No stormwater management facilities shall be placed in existing or proposed easements other than drainage easements approved by the city engineer.

(Ord. No. 2010-17, § 1, 5-3-2010)

Sec. 73.27. - Conditional approval.

Based on his professional opinion and in accordance with good engineering practices, the city engineer may place reasonable conditions upon his approval of a stormwater management plan to ensure compliance with this article and article IV of this chapter, including but not limited to stormwater monitoring or sampling requirements.

(Ord. No. 2010-17, § 1, 5-3-2010)

Sec. 73.28. - Proper installation and maintenance required.

All stormwater management structures and stormwater mitigation measures shall be operated and maintained by the owner and occupant of the site in accordance with the approved stormwater management plan and this Code and the permit conditions of all federal or state agencies having regulatory jurisdiction over stormwater management facilities. Any failure to do so shall constitute a violation of this Code.

(Ord. No. 2010-17, § 1, 5-3-2010)