

CHAPTER 10

STORMWATER MANAGEMENT

SECTION 1: PURPOSE AND INTENT

- a) The purpose of this Chapter is to: 1) preserve the water resources of the City, which are critical to the public health, safety and welfare of its citizens; 2) control stormwater runoff so as to prevent erosion, sedimentation and flooding; and 3) encourage recharge of the aquifer upon which the public depends for potable fresh water.

- b) The requirements hereafter are designed to allow landowners reasonable use of their property while promoting the following objectives:
 - 1) Prevent loss of life and significant loss of property due to flooding;
 - 2) To protect, restore, and maintain the chemical, physical, and biological quality of ground and surface waters;
 - 3) To encourage productive and enjoyable harmony between humanity and nature;
 - 4) To prevent individuals, business entities, and governmental entities from causing harm to the community by activities which adversely affect water resources;
 - 5) To encourage the protection of wetlands and other natural systems and the use of those natural systems in ways which do not impair their beneficial functioning;
 - 6) To minimize the transport of sediments and pollutants to surface waters;
 - 7) To protect, restore, and maintain the habitat of fish and wildlife;
 - 8) To perpetuate natural groundwater recharge;
 - 9) To encourage the use of drainage systems which minimize the consumption of electrical energy or petroleum fuels to move water, remove pollutants, or maintain the system;
 - 10) To ensure the attainment of these objectives by requiring approval and implementation of water management plans for all activities which may have an adverse impact upon groundwater and surface water;

- 6) Increasing by five hundred (500) square feet or greater the impervious area of any parcel of land; and
- 7) Using natural or artificial waterbodies for stormwater management purposes.

SECTION 4: **EXEMPTIONS**

For the purposes of this section, the following activities shall be exempted from further consideration under the provisions of this section. However, these exemptions do not preclude the need to comply with other sections of this Code.

a) Residential Parcel Exemption

Residential parcels where such parcels are part of an overall subdivision which has been approved in accordance with this Code.

b) Agricultural Exemptions

- 1) Facilities for agricultural lands, provided those facilities are part of an approved Conservation Plan by the Soil Conservation Service, shall be exempt however, if the Conservation Plan is not implemented according to its terms, this exemption shall be void.
- 2) In determining whether an exemption is available to a person engaged in the occupation of agriculture, the purpose of the topographic alteration must be consistent with the practice of agriculture and such alteration may not be for the sole or predominant purpose of impounding or obstructing surface waters. In determining consistency with the practice consistency with the practice of agriculture occupations, the Section will refer to the following publication: A Manual of Reference Management Practices for Agricultural Activities (November, 1978). The following activities, structures, and waterbodies are considered as having impoundment or obstruction of surface waters as a primary purpose.
 - A) Section 1, when such practice would cause diverted water to flow directly onto the property of another landowner;
 - B) Floodwater retarding structure;
 - C) Irrigation pit or regulating reservoir;
 - D) Pond;
 - E) Structure for water control;

- F) Regulating water in drainage systems; and
 - G) Pumping plant for water control, when used for controlling water levels on land.
- 3) Other practices which are described in the Manual and which are constructed and operated in compliance with Soil Conservation Service standards and approved by the Lake County Soil and Water Conservation District are presumed to be consistent with agricultural activities. Activities or practices not described in the manual are presumed to be inconsistent with the practice of agriculture.

c) Silvicultural Exemption

- 1) Facilities for silvicultural lands shall be exempt, provided that the facilities are constructed and operated in accordance with the Silviculture Best Management Practices Manual, (1979), published by the State of Florida, Department of Agriculture and Consumer Services, Division of Forestry; and provided further that a Notice of Intent to conduct silviculture activity is received by the City Clerk or designee in accordance with the provisions in Subsection (c)(5) below.
- 2) In determining whether an exemption is available to a person engaged in the occupation of silviculture, the purpose of the topographic alteration must be consistent with the practice of silviculture and such alteration may not be for the sole or predominant purpose of impounding or obstructing surface waters. The following activities are presumed to be consistent with the practice of silviculture when they are undertaken to place property into silviculture use or perpetuate the maintenance of property in silviculture use:
- A) Normal site preparation for planting of the tree crop;
 - B) Planting; and
 - C) Harvesting.
- 3) If any activity is undertaken to place the property into use other than silviculture, the activity is not considered to be consistent with the practice of silviculture and shall be subject to permitting by the City.
- 4) Specifically exempt from permitting under this section are the construction, operation, maintenance, alteration, abandonment and removal of above grade, unpaved, upland silvicultural roads with up to twenty-eight (28) feet of road surface within a construction corridor of up

to fifty (50) feet in width. These roads must incorporate sufficient culverts at grade and may have associated borrow ditches. Road ditches exempted under this provision are those constructed only to obtain road material for the exempt road and to provide only enough storage to maintain a dry road surface. Exempt road ditches must not be designed nor may they serve to provide drainage to the tract adjoining the road. These road ditches must not connect directly or indirectly to any works not owned by the person who owns the exempt road and must be separated from streams, watercourses or waterbodies.

- 5) No construction, operation, maintenance, alteration, abandonment or removal of a minor silvicultural surface water management system shall commence until a completed Notice of Intent is received by the City Clerk or designee. If the activities described above are undertaken without proof of Notice of Intent to the City Clerk or designee, these activities shall be considered as being undertaken without a permit. The Notice of Intent shall only authorize construction, operation, maintenance, alteration, abandonment or removal when it is received by the City Clerk or designee and provided the proposed activity qualifies under this section.

d) Emergency Exemption

Emergency maintenance work performed for the protection of public health and welfare.

e) Maintenance Exemption

Any maintenance to an existing system made in accordance with permitted plans and specifications.

f) Single-Family Exemption

Single-family residential construction on a single lot.

SECTION 5: PERFORMANCE CRITERIA

Stormwater management permit applications shall be approved by the City Clerk or designee when it is demonstrated to the satisfaction of the City Clerk or designee that the proposed development activity has been planned and designed, and shall be constructed and maintained, to meet the performance criteria described herein. The stormwater management system design shall conform to the City of Umatilla Stormwater Design Standards approved and adopted by the City Council.

- a) Criteria shall be consistent with Policy 4-2.1.1 of the City of Umatilla Comprehensive Plan.

- b) All developments within a riverine flood hazard area shall be designed to maintain the flood carrying capacity of the floodway such that the base flood elevations are not increased, either upstream or downstream.
- c) All residential and non-residential structures constructed in the 100 year floodplain shall have the finished first floor of the building elevated a minimum of eighteen (18) inches above the elevation of the 100 year flood, as determined by the City Clerk or designee. For industrial development, flood proofing may be substituted in lieu of elevating the finished floor.
- d) Development shall not result in an increase in the 100 year flood elevation. No fill shall be allowed to be placed in the 100 year floodplain without an equivalent volume of soil removed to compensate for the loss of flood storage. Compensating storage is to be determined by the volume of material removed above the ordinary high water table and below the 100 year flood elevation established for that area. Fill placed in the 100 year floodplain shall not reduce the flow rate.
- e) Projects shall be designed so that stormwater discharges meet, at a minimum, the water quality criteria set forth by the St. Johns River Water Management District and the requirements of the City of Umatilla Stormwater Design Standards in order to achieve the state water quality standards established by the Florida Department of Environmental Regulation in Chapter 17-3, Florida Administrative Code.
- f) The peak rate of flow of the discharge hydrology for the project site shall not exceed the pre-development peak rate of flow for the range of storms specified in the City of Umatilla Stormwater Design Standards, if the project area is not contributory to a land-locked area with no positive outlet. When the project area is contributory to a land-locked area with no positive outlet, the project shall provide extended detention for the difference in volume of stormwater discharge for pre-development and post-development conditions from the 25-year, 96-hour storm event.
- g) The stormwater management system shall not create an adverse impact to upstream or downstream areas. Offsite areas which discharge to or across a site proposed for development shall be accommodated in the stormwater management plans for the development. No stormwater management permit application shall be approved until the applicant demonstrates that the runoff from the project shall not overload or otherwise adversely impact any downstream areas.
- h) The stormwater management system shall not cause adverse environmental impacts to wetlands, fish, wildlife, or other natural resources.
- i) Wetlands shall not be used for stormwater treatment.

- j) Wetlands shall not be used to attenuate runoff peak rates except for isolated wetlands which are wholly-contained on site, provided that the utilization of the wetlands for stormwater attenuation does not disrupt the normal range of water level fluctuation as it existed prior to construction of the wetland discharge facility.
- k) Stormwater facilities shall be designed to perform as follows:
 - 1) Bridges. Hydraulic profile shall be below the top cord of the bridge for the 50-year, 24-hour storm.
 - 2) Stormwater detention and retention ponds which are contributory to land-locked areas with no positive outlet shall be designed for the 25-year, 96-hour storm.
 - 3) Canals, ditches, or culverts external to the development, and stormwater detention or retention basins which are part of a project that is not contributory to a land-locked area with no positive outlet, shall be designed for the 25-year, 24-hour storm.
 - 4) Stormwater flooding for all arterial and collector roads (as classified in the City's Comprehensive Plan) shall not exceed one-half (1/2) of the roadway width. For all local roads stormwater flooding shall not exceed the crown of the road for the 10-year, 24-hour storm.
 - 5) Storm sewers and roadside swales shall be designed such that the hydraulic gradient is 1.0 foot below the gutter line or edge of pavement for arterial roadways; and 0.5 feet below the gutter line or edge of the pavement for collector and local roadways for the 10-year, 24-hour storm.
- l) All proposed stormwater management systems shall be designed to prevent flooding, promote safety, and minimize health hazards.
- m) All stormwater management systems shall be designed to reduce the pollution of surface water and groundwater resources by stormwater, control erosion, and provide for recharge where appropriate. The City Clerk or designee, while enforcing standards set for pollution and sedimentation control, may encourage or request innovative approaches to control pollution and erosion, and to provide for recharge.

SECTION 6:

**STORMWATER MANAGEMENT SYSTEM DESIGN
CRITERIA**

- a) Stormwater management systems shall be designed in accordance with the criteria contained in the City of Umatilla Stormwater design Standards and adopted by the City Council.
- b) The City may periodically modify these stormwater design criteria to meet the objectives of this section or other construction codes which may be required by the City. These modifications shall be compiled by the City Clerk or designee in a set of amended City of Umatilla Stormwater Design Standards and incorporated into the adopted City of Umatilla Stormwater Design Standards.
- c) Clearing and Grading Standards

- 1) The purpose of this section is to provide specific criteria for allowable clearing and grading in order to prevent soil erosion and any impact on adjoining properties. Specific criteria for a “clearing permit” are located within Chapter 13, “Site Development Plan Approval”.

In addition the purpose of this Section is to comply with Comprehensive Plan Policy 5-1.26 Reduce Sediments and Turbidity Associated with Shoreline Erosion and Policy 5-1.71 Implementing Erosion Control.

- 2) A clearing permit shall be secured and clearing shall be completed prior to the issuance of any other development permit. No site clearing shall take place on any subject property to an approved site development plan until a clearing permit has been issued by the City Clerk or designee. Standards and criteria for a clearing permit are stated within Chapter 13 of this Code.
- 3) Standard practices shall be used to prevent erosion and the depositing of soils off-site. This shall also include the protection of bare soils from wind forces. Factors which influence erosion potential include soil characteristics, vegetative cover, topography, and climatic conditions. The following principles must be considered in planning and undertaking construction within the development (Applicant’s Handbook, Management and Storage of Surface Waters, St. Johns River Water Management District, 40C-4).
 - A) Plan the development to fit topography, soils, and drainage patterns;
 - B) Minimize the extent of area exposed at one time and the duration of exposure;

- C) Schedule areas with greatest erosion potential for dry, rather than wet, season exposure;
 - D) Apply erosion control practices to minimize erosion from disturbed areas;
 - E) Apply perimeter controls to protect the disturbed area from off-site runoff and to trap eroded material on-site to prevent sedimentation in a downstream area;
 - F) Stabilize the disturbed area immediately after the final grade has been attained or during interim periods of inactivity resulting from construction delays; and
 - G) Implement a ~~through~~ thorough maintenance and follow-up program.
- 4) A plan must be prepared and submitted to the City Clerk or designee with the permit application. The plan must include consideration of the site specific erosion potential, including slopes, soil erodability, vegetative cover, and runoff characteristics. The following is a listing of the information which must be included in the plan, to be shown on the construction or alteration plans, detail sheets or other appropriate documents.
- A) The existing and proposed topography;
 - B) A general description of the predominant soil types on the site, and the corresponding erodability potential as described by the appropriate soil survey information or on-site investigation;
 - C) Schedule and general description of each construction phase of the project. At a minimum, the following applicable phases must be addressed; clearing, excavation earthwork, embankment earthwork, site utilities, roads, site grading and stabilization. The schedule must include estimated starting date and duration. Description must include limits of area impacted by each phase; and
 - D) For each phase a description is required for individual erosion control measures, which are required to be shown on construction plans or detail sheets.
 - 1) Estimated date of installation and removal;
 - 2) location;
 - 3) purpose of measure and areas served;

- 4) detailed construction drawings and specifications;
 - 5) operation and maintenance schedule; and
 - 6) all documentation including referenced design standards and specifications.
- 5) The burying of rubbish, logs, lumber, building materials, underbrush, trash or other matter which would decompose or allow the land to thereafter settle is hereby determined to be a change or modification of the grade of land for which no permit shall be issued.
- 6) If construction is planned within shoreline areas all necessary measures shall be taken to minimize soil erosion and to control sedimentation in the disturbed area. The following protection shall be provided for all disturbed area:
 - A) Minimize velocities of water runoff;
 - B) Maximize protection of disturbed areas from stormwater runoff; and
 - C) Retain sedimentation within the development site as early as possible following the disturbance.
- 7) Erosion control measures must be taken to prevent detachment and transportation of soil particles. The property owner or his designee shall not adversely impact aquatic vegetation within the wetland littoral zone located between the upland area and the ordinary high water line. No such vegetation shall be disturbed without the required state and federal regulatory agency permits.

The property owner or his agent shall acquire the necessary permits, if applicable, from the Department of Environmental Regulation (FDER), St. Johns River Water Management District (SJRWMD), U.S. Army Corps of Engineers (ACOE), and the Florida Department of Natural Resources (FDNR).

Turbidity barriers must be installed at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the proposed work. Turbidity barriers must remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. Thereafter the property owner will be responsible for the removal of the barriers.

The property owner or his agent must implement and operate all erosion and sediment control measures required to retain sediment on-site and to prevent violations of water quality standards as specified in Chapters 17-3

- 3) Specific maintenance activities to be performed;
 - 4) Frequency of maintenance activity; and
 - 5) Measurable objective of maintenance activity.
- b) The installed stormwater system shall be maintained by the legal entity responsible for maintenance. All stormwater management permit applications shall contain documentation sufficient to demonstrate that the operation and maintenance entity is the legal entity empowered and obligated to perpetually maintain the stormwater management facilities:
- 1) Local governmental units including the City, County, other municipalities or Municipal Service Taxing Units.
 - 2) Active Chapter 298, Florida Statute, water control districts or drainage districts, or Chapter 190, Florida Statute, Community Development Districts, or Chapter 170, Florida Statute, Special Assessment Districts.
 - 3) Non-profit corporations including homeowners associations, property owners associations, condominium associations, or master associations under certain conditions which ensure that the corporation has the financial, legal and administrative capability to provide for the long term operation and maintenance of the facilities.
 - 4) The property owner or developer as permittee is normally not acceptable as a responsible entity, especially when the property is to be sold to various third parties. However, the property owner or developer may be acceptable under one of the following circumstances:
 - A) The property is wholly owned by permittee and the ownership is intended to be retained. This would apply to a farm, corporate office, or single industrial facility, for example.
 - B) The ownership of the property is retained by the permittee and is either leased to third parties (such as in some shopping centers) or rented to third parties (such as in some mobile home parks), for example.
- c) The stormwater management system to be maintained by the legal entity shall have adequate easements, in accordance with Section 7, to permit the City to inspect, and if necessary, to take corrective action should the legal entity fail to maintain the system properly.

- d) Maintenance of stormwater facilities shall allow the stormwater management system to perform as originally designed and permitted by the City and other appropriate governmental agencies and as set forth in the written plan
- e) Maintenance shall include compliance with City building and construction codes, and all other applicable City codes.
- f) Non-Profit Corporations shall annually report to the City the maintenance performed during the year and demonstrate their financial capability to provide the required maintenance for the coming year. This shall be done to reflect compliance with their written maintenance plan.
- g) The legal entity shall execute and record a document acceptable to the city Attorney which defines its authority and responsibility for maintenance of the stormwater management system, defines how the maintenance is to be performed, defines the funding mechanisms for the required maintenance, and provides a legal mechanism assuring the perpetuation of the maintenance.
- h) In order to assure maintenance during a two (2) year maintenance period security shall be submitted before acceptance of the constructed facilities. The security shall be in the form of an approved financial instrument which may include, but not be limited to, cash or performance bonds and letters of credit. The amount of security shall be ten percent (10%) of the certified construction cost estimate or the actual construction amount. The security shall be released at the end of the two (2) year period upon inspection which confirms that the system has been properly maintained and is operating in accordance with the approved construction plans.

SECTION 9: **INSPECTIONS**

Subsequent to the permittee satisfying the requirements of Section 6, other applicable sections and the issuance of the appropriate permit, the permittee shall, during construction, arrange and schedule the following inspections by the City Clerk or designee:

- a) During clearing operation and excavation to assure that effective control practices relative to erosion and sedimentation are being followed.
- b) All underground conveyance and control structures prior to backfilling.
- c) Final inspection when all systems required by the permittee's approved stormwater management plan have been installed.

conditions of this Chapter, may be prosecuted as provided in Chapter 125, Florida Statutes, Section 125.69.

- c) **Cumulative Effect.** The penalties provided for herein are cumulative. Use of one method of enforcement shall not preclude the City from using other methods of enforcement for the same violation.