

## **ORDINANCE 20-27**

**AN ORDINANCE OF THE CITY OF DUNEDIN, FLORIDA, AMENDING ARTICLE IX – STORMWATER MANAGEMENT OF THE CODE OF ORDINANCES BY AMENDING SECTION 78-452 TO PROVIDE THAT PROPERTY DAMAGE AS A RESULT OF STORMWATER SHALL BE MINIMIZED BY HAVING THE LOWEST PORTION OF ALL STRUCTURAL MEMBERS SUPPORTING THE LOWEST FLOOR BE ELEVATED TO OR ABOVE THE BASE FLOOD ELEVATION PLUS 1 FOOT, ACCORDING TO CHAPTER 105-21.1.; BY DELETING THE DEFINITION OF ILLICIT DISCHARGE IN SECTION 78-453; BY ADDING THE DEFINITION OF NOV AND UNLAWFUL AND ILLICIT DISCHARGE IN SECTION 78-453; BY RENAMING SECTION 78-454 AS UNLAWFUL AND ILLICIT DISCHARGES AND ADDING CURBS AS AN UNLAWFUL AND ILLICIT PLACE FOR GRASS CLIPPINGS, VEGETATIVE MATERIAL AND/OR VEGETATIVE DEBRIS; BY AMENDING SECTION 78-455 TO REQUIRE DEVELOPMENT PROJECTS FOR PARCELS LESS THAN ONE-HALF ACRE IN SIZE TO HAVE LOT GRADING FOR OVERLAND STORM RUNOFF DIRECTED TOWARDS THE ROADWAY OR TO A FEATURE DESIGNED FOR STORMWATER CONVEYANCE AND PROVIDING FOR A WAIVER IF FINAL GRADING IMPEDES EXISTING OFFSITE RUNOFF, CHANGES THE EXISTING DISCHARGE POINTS OR RATES OF OFFSITE DISCHARGE OR SHOWS ADVERSE IMPACT TO ADJACENT PROPERTIES; BY AMENDING SECTION 78-457 TO DELETE THE REFERENCE TO NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD); BY AMENDING SECTION 78-457 TO PROVIDE FOR DESIGN STORAGE CAPACITY FOR CUMULATIVE STORMWATER RUNOFF TO BE BASED ON NOT LESS THAN A 25-YEAR STORM OF 24-HOUR DURATION, USING THE SCS TYPE 1 FL. MODIFIED DISTRIBUTION FOR OPEN BASINS, AND FOR CLOSED BASINS, A 100-YEAR STORM OF 24-HOUR DURATION EQUAL TO 12.00 INCHES, TO PROVIDE THAT GROUND LEVEL RESERVOIRS BE CONSTRUCTED TO HAVE DRY BOTTOM ELEVATIONS OF SIX (6) INCHES, AND TO PROVIDE THAT OPEN CHANNELS SHALL BE CONSTRUCTED WITH SIDE SLOPES TO ACCOMMODATE 25-YEAR, 24-HOUR STORM FLOWS; BY AMENDING SECTION 78-460 TO PROVIDE THAT INLET GRATINGS MEET THE SPECIFICATIONS OF**

**FDOT AND TO REQUIRE THE WORDS “CITY OF DUNEDIN STORM” ON CAST IRON COVERS TO ACCESS STRUCTURES OF STORM SEWERS; BY AMENDING SECTION 78-462 TO PROVIDE THAT FINAL GRADING MUST NOT IMPEDE EXISTING OFFSITE RUNOFF; BY AMENDING SECTION 78-463 TO PROVIDE THAT UPON COMPLETION OF ALL PERMANENT STRUCTURES TO CONTROL STORMWATER, ERODIBLE AREAS WILL BE STABILIZED WITH ACCEPTABLE GROUND COVER TO PREVENT EROSION WITHIN 7 DAYS; BY CREATING SECTION 78-470 TO PROVIDE PROVISIONS FOR UNLAWFUL AND ILLICIT DISCHARGE ENFORCEMENT; BY PROVIDING A GLOBAL CHANGE OF THE TERM CITY ENGINEER TO THE TERM DIRECTOR OF PUBLIC WORKS/CITY ENGINEER; AND PROVIDING FOR AN EFFECTIVE DATE OF THIS ORDINANCE.**

**WHEREAS**, City staff reviewed Article IX – Stormwater Management of Chapter 78 of the Code of Ordinances and has recommended that certain revisions are necessary; and

**WHEREAS**, the recommendations of staff have been found meritorious by the City Commission; and

**WHEREAS**, the City Commission has received input from the public at two public hearings.

**NOW THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF DUNEDIN, FLORIDA, IN SESSION DULY AND REGULARLY ASSEMBLED:**

**Section 1.** That Article IX – Stormwater Management of Chapter 78 of the Code of Ordinances is hereby amended to read as follows:

**ARTICLE IX. - STORMWATER MANAGEMENT**

**Sec. 78-451. - Standards, regulations and procedures.**

- (a) The standards, regulations and procedures are set forth in this article to control:
  - (1) The alteration of land and topography;
  - (2) The removal and placement of certain vegetation;
  - (3) The erosion, sedimentation and pollution within drainage systems;
  - (4) The permissible surface runoff rates of proposed land developments; and

- (5) The performance of the drainage systems for the purpose of stormwater management within the city.
- (b) The standards, regulations and procedures set forth in this article represent the present stormwater management practices of the city. This article shall not be construed as a guarantee against all stormwater damage, but as a means to minimize the extent of apparent stormwater hazards to the public as well as a means to help prevent degradation of the water quality of receiving waters. These are minimum standards only and do not relieve the developer or his engineer of record from their designated responsibility to meet the intent of this chapter, and to protect the rights of surrounding property owners and the public interest, in accordance with good engineering practices.

**Sec. 78-452. – Application of standards.**

The following standards shall apply in this article:

- (1) Lakes and watercourses shall be preserved.
- (2) Property damage as a result of stormwater shall be minimized by having the lowest portion of all structural members supporting the lowest floor be elevated to or above the base flood elevation plus 1 foot, according to chapter 105-21.2.
- (3) All development projects shall minimize the adverse effects of land clearance, alteration of topography, exposure of bare earth to precipitation and shall include such detailed hydrological analysis, calculations of flood routing, critical flows, energy dissipation, backwater curves, hydrographs, detention requirements, detailed drawings or other relevant information as determined by the Director of Public Works/City Engineer.

**Sec. 78-453. - Definitions and interpretations.**

- (a) For the purposes of this article, the following interpretations shall apply:
  - (1) Words used in the singular shall include the plural and the singular, words used in the present tense shall include the future tense.
  - (2) The words "shall" and "will" are mandatory.
  - (3) The words "may" and "should" are permissive.
  - (4) The phrase "used for" shall include the phrases "arranged for," "designed for," "intended for," "maintained for" and "occupied for."
  - (5) Words not defined in this section shall be construed to have the meaning given by the common contemporary dictionary definition.
- (b) For the purposes of this article, the following definitions shall apply

*Authorized official* means any employee or agent of the city authorized by the city manager to administer or enforce the provisions of this article

*Construction* means any alteration of land for the purpose of achieving its development or changed use, including particularly the preparation for, building of, or erection of a structure.

*Detention* refers to holding the surface water runoff for a short period of time and then releasing it to a watercourse or waterway where it returns to the hydrological cycle

*Developer* means any person who acts in his own behalf or as an agent of an owner of property and engages in alteration of land or vegetation.

*Development* means any action which results in alteration of land

*Discharge* means any direct or indirect introduction of any solid, liquid or gaseous matter

*Floodway* means the channel of a watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a specified amount.

*Municipal separate storm sewer system (MS4)* means the system of conveyances and facilities owned by the city used for collecting, storing, and transporting stormwater but not including any facilities intended to be used in accordance with applicable law for collecting and transporting sanitary or other wastewater.

*NOV* means Notice of Violation.

*NPDES* means the National Pollutant Discharge Elimination System.

*Retention* refers to facilities whereby water is held for a considerable length of time for aesthetic, agricultural, consumptive or other purposes. This water is not designed to be discharged to a watercourse or storm sewer system, but may be consumed by plants, evaporation, or infiltration into the ground.

*Site of industrial activity* means any area or facility used for manufacturing, processing or raw materials storage, as defined under 40 CFR 122.26(b) (14) of regulations of the U S Environmental Protection Agency, as amended

*Storm sewer* refers to a pipe (or other conduit) and appurtenances enclosing the path or route of flow of collected surface waters and are manmade structures, usually below ground, to transport runoff or surface water from a given area to an outfall or receiving point.

*Stormwater* means any water runoff resulting from rainfall.

*Unlawful and illicit discharge* means any discharge to the municipal separate storm sewer system or natural waterways under City of Dunedin jurisdiction that is not composed entirely of stormwater except:

- (1) Discharges pursuant to a NPDES permit; and
- (2) Discharges resulting from the following.
  - a. Flows from firefighting;
  - b. Water line flushing and other contributions from potable water sources;
  - c. Landscape irrigation and lawn watering;

- d. Irrigation water,
- e. Diverted stream flows;
- f. Rising groundwater;
- g. Direct infiltration to the municipal separate storm sewer system;
- h. Sediment and pollutant filtered uncontaminated pumped groundwater;
- i. Foundation and footing drains;
- j. Water from crawl space pumps;
- k. Air conditioning condensation,
- l. Springs;
- m. Individual residential car washings;
- n. Flows from riparian habitats and wetlands; and
- o. Swimming pools (not including pool filter backwash water).
  - 1. Swimming pools must be drained to vegetated land and cannot be discharged directly onto an impervious surface that connects with the MS4 system. A minimum of 5 feet must be between the end of the drain hose and the impervious surface.

*Watercourse/waterway* means the terms are interchangeable and refer to the location of the defined open path or open route of the flow of surface water as established by topography and the force of gravity, regardless of the frequency or quantity of water being conveyed.

**Sec. 78-454. – Unlawful and illicit discharges.**

- (a) It shall be unlawful to discharge the following to any outlet or to the municipal separate storm sewer system within the city, or in any area under the jurisdiction of the city:
  - (1) Any sanitary sewage, industrial waste or other waste materials or a discharge containing any materials in violation of municipal, state or federal administrative agencies, water management district, or other laws, rules, regulations, orders or permits;
  - (2) Any organic or inorganic matter which causes the water quality of the receiving water to fall below the standards as set forth in Florida Administrative Code, Chapter 62-302,
  - (3) Any discharge that is not composed entirely of stormwater, or
  - (4) Any illicit discharge as defined in § 78-453.
  - (5) In no case shall grass clippings, vegetative material, and/or vegetative debris either intentionally or accidentally, be washed, swept or blown off into stormwater drains, ditches, drainage conveyances, surface waters, roadways, or curbs

Exceptions to the above prohibitions are those set forth in the definition of illicit discharge in § 78-453.

- (b) No person may maintain, use, or establish any direct or indirect connection to the municipal separate storm sewer system that results in any discharge in violation of this article. This prohibition applies to connections made in the past, regardless of whether made under a permit, or other authorization, or whether permissible under laws or practices applicable or prevailing at the time the connection was made.

**Sec. 78-455. - Exceptions to drainage and detention plan requirement.**

Development projects for any parcel less than one-half acre in size will not require the presentation of a detailed drainage and detention plan, but will require a lot drainage plan, that shall include:

- (1) The proposed lot grading indicating the direction of overland storm runoff, directed towards the roadway or to a feature designed for stormwater conveyance. Per City Design Standards, final grading must not impede existing offsite runoff, not change the existing discharge points or rates of offsite discharge. If these criteria cannot be met, a waiver from the Director of Public Works/City Engineer is required and must show no adverse impact to adjacent properties.
- (2) The finished floor elevations of all existing and proposed permanent structures in relation to the centerline elevation of the abutting roadway at mid-lot.
- (3) Any other features deemed pertinent by the Director of Public Works/City Engineer
- (4) An affirmative statement, signed and sealed by the project engineer of record, that the development project will not increase the site runoff onto adjacent properties.

**Sec. 78-456. – Drainage plan requirement.**

All proposals for development, except those proposals for development referred to in § 78-455, shall include detailed drainage and detention plans, including temporary erosion and sedimentation controls, to be submitted for the approval of the Director of Public Works/City Engineer, except as may be waived in accordance with the exceptions in § 78-455. The drainage plan shall illustrate the means by which compliance with the intent of the policies of this article will be achieved. The drainage plans shall be certified by a registered professional engineer of the state, and shall conform to current requirements of applicable regulatory agencies, including those requirements specified in the National Pollutant Discharge Elimination System permit granted by the United States Environmental Protection Agency

**Sec. 78-457. - Drainage plan content.**

- (a) Detailed drainage plans for stormwater management for land to be developed shall be submitted for approval prior to the start of site preparation work and shall include:

- (1) Where practical, detailed drainage plans shall be based on the use of regional treatment facilities and/or on the use of low impact development features and "green" technologies
- (2) The existing and proposed topographical contours in intervals not more than one foot, with the elevations based on the North American Vertical Datum of 1988 (NAVD) on the property to be developed and extended onto abutting properties a distance not less than 50 feet from the property lines. The selected datum must be clearly noted on the plans. The plans will also show the existing and proposed shorelines of lakes and ponds and their depths of water, the delineation of swamps, depth of muck in areas of proposed roadways and infrastructures locations, the waterways, channels and ditches within the development, and other features required by the Director of Public Works/City Engineer.
- (3) The basic hydraulic calculations of the proposed drainage system shall be based on the Manning Equation and/or Bernoulli's Equation as applicable for pipe and open channels. Calculations used for the determination of runoff shall be based on generally accepted design methods subject to approval by the Director of Public Works/City Engineer. For small parcels of two acres or less, the rational formula (Q equals CIA) for runoff may be used where.

Q equals rate of runoff (in CFS)

C equals coefficient of runoff

I equals average intensity of rainfall (in inches per hour) as shown on the duration/intensity curves for the county

A equals area of drainage basin (in acres) and velocity curves and tabulations published by the state department of transportation relative to overland flows and velocity limits for soil types  
Coefficients of runoff in rational formula shall be used based on land use as follows for a 25-year storm or less. Twenty percent shall be added to the runoff coefficient for storms in excess of 25 years.

Land Use	Runoff Coefficient
Undeveloped vegetated ..	0.20
Agricultural acreage .. ..	0 25
Residential, 30,000 square feet, lot ....	0 34
Residential, 20,000 square feet, lot .. .	0 40
Residential, 10,000 square feet, lot ... .	0.49
Residential, 7,500 square feet, lot .	0 53

Residential, 6,000 square feet, lot .....	0.56
Impervious ...	0.90
Water surface . . .	1.00

- (4) The detention of cumulative stormwater runoff in excess of existing or predevelopment release rates shall be provided for by construction of facilities having sufficient storage and conveyance capacity either on the property to be developed or off-site. The use of off-site storage facilities shall be subject to deed restrictions on the project site(s) subject to City Attorney approval. The design storage capacity shall be based on not less than a 25-year storm of 24-hour duration, using the SCS Type 1 FL Modified distribution for open basins, and for closed basins, a 100-year storm of 24-hour duration. Detention storage capacity may be provided by properly designed facilities on roofs, surface or ground level reservoirs, percolation structures, low impact development features or any combination of these. The use of percolation structures or low impact development features will be subject to approval of the Director of Public Works/City Engineer. Design of retention basins with no outflow or outlet if permitted by the Director of Public Works/City Engineer shall be based on the 100-year storm recurrence interval and a rainfall of 24-hour duration which is equal to 12.00 inches. Design high-water elevation shall be established in consideration of adjacent properties and facilities.
- (5) Ground level reservoirs specifically designed for the temporary storage of stormwater to control runoff rates or meet water quality requirements shall
- a. Be identified as a drainage and utility easement on the final plat of a subdivision, or duly recorded as such in the official records of Pinellas County prior to the issuance of any building or construction permits relating to the subject project in other developments.
  - b. Be shown as a part of abutting lots within the subdivision by extending side or rear lot lines to a right-of-way, side or rear lot line, or to a common point where multiple lots are platted or other distribution acceptable to the city.
  - c. Be constructed normally to have dry bottom elevations six (6) inches above the groundwater table at the end of the rainy season (September) with the bottom graded to drain all detained water to the controlling outlet structure, and such bottom shall be sodded or seeded and mulched. Wet bottom ponds are described under subsection (4) of this section.
  - d. Have bank slope grades not in excess of 33 percent, i.e., one vertical to three horizontal which shall be sodded, with the exception that the areas over side drains shall be seeded and mulched or covered with a minimum four-inch thick blanket of crushed stone or equivalent material.

- e. Include an outlet structure sized or designed to convey the specified release rate or allowable predevelopment runoff rate from the contributing area, which outlet also shall provide for the retention or detention with filtration of the first half inch of runoff (or, as an option, the runoff from the first one inch of rainfall) for not more than 72 hours for water quality purposes. Elevation three feet is the minimum downstream boundary conditions allowed for design of head available for outfall into tidal waters. All other downstream boundary conditions will reflect 25-year stream flows or groundwater elevations.
- f. Be constructed to provide at least 12 inches of freeboard between the 25-year flood storage level and the low bank elevation surrounding the detention area (not including the overflow spillway).
- g. Include an overflow spillway or other structure acceptably protected from erosion with the invert above the design high water level and at least six inches below the top of bank, of sufficient capacity to accommodate excess flows resulting from a 100-year storm of 24-hour duration
- h. Have the discharges of the controlling outlet and the overflow structure to an abutting drainage easement or public right-of-way to convey stormwater runoff away from the property being developed. The developer will pay all costs relative to the execution of the necessary instruments and related costs to convey the necessary rights of easement to the city. Such rights shall be conveyed to the city prior to site preparation or other construction operations on the property. Necessary off-site construction work to safely convey stormwater from the development to a waterway shall be performed by the developer at no cost to the city, excepting costs which may be negotiated for additional improvements benefitting others as requested by the city. Where necessary, the city will assist the developer to convey the rights of easements to the city through lawful process as may be required
- i. Where ponds, lakes, or other existing surface water impoundments, having wet-bottom elevations below the seasonal high groundwater elevations, are to be used for or constructed for the detention/retention of stormwater to control runoff release rates and quality of runoff from the property to be developed, the developer may store additional runoff in the impoundment in the proportionate share of his property to the total abutting shoreline properties assuming the abutting shoreline properties to be fully developed as zoned, with the following conditions: The 100-year floodplain of the impoundment will not be increased above the lowest floor elevation of any existing habitable structure in the contributing area, proper safeguards are provided to protect public health and safety, acceptable pollution control devices are provided to protect the quality of water in the impoundment, and a 20-foot buffer strip surrounding the impoundment measured from

the design high water level, identified as a drainage easement, with such easement connected to a public right-of-way by a 20-foot drainage easement, is provided. All construction or necessary alteration of such stormwater impoundment facility shall be in accordance with the requirements of the applicable regulatory agencies and in accordance with good engineering practices. Proposals to lower existing water levels shall require approval by the applicable regulatory agencies and the Director of Public Works/City Engineer. Except for berm failures and structural repairs, maintenance of the 20-foot easement shall be the responsibility of the property owner.

- (6) Open channels, other than shallow swales, are acceptable only to convey stormwater quantities in excess of 60 cubic feet per second, and shall be constructed with side slopes not steeper than 3:1 (33 percent) to accommodate 25-year, 24-hour storm flows with one foot of freeboard without damage or channel erosion. Culverts or other structures installed at roadway crossings shall be designed to accommodate 25-year, 24-hour storm flows without creating additional backwater as a minimum. Roadway crossings will also be designed to pass the 100-year storm event, provide in-bank storage or overflow the road with no damage to the road or flooding of adjacent structures during a 100-year flood event.
- (7) In coastal areas, where discharge from the required detention area is directly into a tidal zone, and, where it can be shown that such discharge would not have any significant adverse effects, the Director of Public Works/City Engineer may waive the detention requirement as defined in subsection (a)(3) of this section. The retention (or detention with filtration) required for water quality purposes, as defined in subsection (a) (5)e of this section will in no case be waived.

**Sec. 78-458. – Flood routing; 100-year storm.**

- (a) The open areas and roadways within the proposed development shall be designed to convey safely, via routes acceptable to the Director of Public Works/City Engineer, the 100-year storm runoff from within the development to a designated floodway or area within a designated 100-year floodplain.
- (b) The drainage system of the proposed development shall be designed to pass 100-year storm runoff through the development from all off-site upstream areas without damaging effects. Alternatively, where capacity of downstream facilities is less than such 100-year flood quantity, an area designed to accommodate the surplus flows shall be delineated on the proposed development as a 100-year floodplain subject to all restrictions, reservations and requirements of the National Flood Insurance Program.

**Sec. 78-459. - Floodways.**

- (a) The floodways conveying runoff from a 100-year storm through the proposed development shall be within designated easements or public rights-of-way which will accommodate mechanical maintenance equipment.

The width of the designated easement or right-of-way which may include an abutting roadway, shall have:

- (1) Twenty additional feet of width, where the top-of-bank width is 20 feet or less, for maintenance purposes.
- (2) Twenty-five additional feet of width where top-of-bank width is 20 to 40 feet.
- (3) Twenty-five additional feet of width on both sides of the floodway where the top-of-bank width is greater than 40 feet, for maintenance purposes. The bottom width of floodways within easements or rights-of-way, not protected by erosion prevention devices, such as retaining walls, lined or paved bottoms or other artificial means, shall be established by quantity of water, with side slopes not in excess of 33 percent (i.e , 3 1) which shall be sodded, with the permissible flow velocities for the bottom conditions not in excess of the following

Type of Soil	Allowable Velocity (feet per second)
Fine sand ....	1.5
Sandy loam . .	1.8
Silt loam ..	2.0
Firm loam .	2.5
Fine gravel ...	2.5
Stiff clay ..	2.8
Coarse gravel ... .	4.0
Hardpan ...	6.0

Where erosion protection structures are constructed in floodway banks and bottoms, the bottom width shall be designed on maximum velocities of ten feet per second, with energy dissipation structures at flow discharges to unprotected floodways. Check dams designed to control velocities in open channels shall be detailed on the drainage plan of the proposed development to provide acceptable erosion protection

- (b) Underground utility crossings of all floodways, open channels and ditches shall be clearly labeled on-site with suitable markers or permanent signs.

**Sec. 78-460. – Storm sewer catch basin spacing.**

- (a) The size, type and location of storm sewer inlets, gratings or other openings into the closed collector piping system of the proposed development shall be based on the post-development time-of-concentration flows of a ten-year, 24-hour storm and shall provide sufficient capacity to:

- (1) Limit the quantity of stormwater flowing in the streets to a depth of one inch below the crown or centerline of residential streets and to a depth of two inches below the crown or centerline of a local designated street at 75 percent of peak design flows and in no case exceed ten feet per second velocity in any gutter section of the roadway, nor exceed 400 feet from inlet ridgeline to inlet
  - (2) Prevent design flows across street intersections without standard valley gutters. Curb inlets in corner arcs are not acceptable, due to maintenance costs to the city
- (b) Inlet gratings in roadways shall be in accordance with the specifications of the Florida Department of Transportation. Cast iron covers to access structures of the storm sewers will require the words "City of Dunedin Storm" cast into the cover not less than two inches in height. Walls of inlet or access structures shall be at least eight inches thick when constructed of brick or block. Pipe terminating in access structures or inlets shall not project beyond the wall of the structure, and except for open bottom structures as pollution control devices, the outlet pipe should drain the structure dry.

**Sec. 78-461. - Piping.**

- (a) The piping and appurtenances used in the stormwater collection system shall be designed to convey the runoff of a ten-year storm, but in no case be less than 15 inches in diameter. The maximum length of pipe to be installed between access structures shall be 450 feet. The minimum time of concentration used to compute pipe sizing shall be not less than 15 minutes. The standard hydraulic gradient shall be one foot below gutter elevation.
- (b) Headwalls shall be provided at all inlet or outlet pipes receiving water from or discharging water to an open channel. The headwalls shall be bagged sand cement, concrete block filled with concrete, poured concrete, acceptably reinforced or other approved structures placed in accordance with the specifications of the state department of transportation. Where flow velocities from piping discharging to open channels exceed permissible velocities for the soil conditions in the receiving channels, suitable energy dissipating structures shall be installed to prevent erosion. All piping shall be of reinforced concrete unless otherwise approved by the Director of Public Works/City Engineer. Culverts or collector piping under roadways shall have a minimum rating of class III (ASTM 6-76-72A) or AASHTO (M-170-74). Precast or poured-in-place box culverts shall be constructed in accordance with the specifications of the state department of transportation.

**Sec. 78-462. - Finished grade.**

- (a) The finished grade elevations of the individual lots shall be shown on the drainage plan, these elevations will normally drain the lot from the rear property line to the street, along the common property lines. Where topography or other features make impractical such lot drainage, an alternate lot drainage plan will be submitted for the approval of the Director

of Public Works/City Engineer. Per City Design Standards, final grading must not impede existing offsite runoff, not change the existing discharge points or rates of offsite discharge. If these criteria cannot be met, a waiver from the Director of Public Works/City Engineer is required and must show no adverse impact to adjacent properties

- (b) The drainage plan shall include the finished minimum floor elevations of all structures which may be constructed. The minimum finished floor elevation should be at least 18 inches above the centerline of the abutting roadway. Proposed finished floor elevations of structures shall ensure adequate fall of the building's sanitary sewer line, and ensure that surface water flows will not cause damage nor enter any portion of the structure on the lot or abutting properties unless drainage easements are provided.
- (c) In no case shall finished floor elevations be specified below the 100-year floodplain

**Sec. 78-463. - Temporary erosion/sedimentation controls.**

- (a) As part of a proposed site plan, the engineer of record shall submit the detailed construction sequence, including earthwork operations, and confer with the Director of Public Works/City Engineer for approval of the same.
- (b) Interim or temporary control measures shall be designed, constructed and maintained during the construction period in accordance with the current state department of transportation Standard Specifications for Road and Bridge Construction and Road Design Standards and the current recommendations of the United States Natural Resources Conservation Service. Where conflicts exist between the state department of transportation and the United States Natural Resources Conservation Service, the more restrictive will govern, relative to construction sequences, limitations of exposed erodible earth, clearing, grubbing, sodding, grassing, mulching, matting, sandbagging, slope drains, sediment basins, berms, dikes, diversions, terracing, retaining devices such as baled hay or straw, or other structures, gabions, soil binders, dust controls and other interim measures to preclude off-site flooding, erosion, sedimentation or pollution to receiving waters or on abutting properties during the construction period. The Director of Public Works/City Engineer may waive the requirement for detailed plans to be submitted for formal approval of the interim or temporary erosion/sedimentation or pollution control measures to be implemented during the construction period
- (c) Construction site controls for stormwater runoff may include, but not be limited to, the following:

**Construction Site Controls**

Control Type	Slope Protection	Waterway Protection	Surface Drainage	Enclosed Drainage	Large Flat Areas	Borrow Areas	Adjacent Properties
Nonstructural (cover) temporary seeding	X		X		X	X	X

<b>Mulching and matting</b>	X				X	X	
<b>Plastic covering</b>	X					X	X
<b>Retain natural vegetation</b>	X	X	X	X	X		X
<b>Buffer zones</b>	X	X	X	X	X	X	
<b>Seeding and planting</b>	X				X	X	X
<b>Sodding</b>	X		X		X	X	
<b>Structural-erosion control</b>			X		X		
<b>Gravel/entry/truck wash</b>							
<b>Road stabilization</b>			X				
<b>Dust control</b>							
<b>Pipe slope drains</b>					X	X	X
<b>Subsurface drains</b>	X						
<b>Surface roughening</b>	X					X	
<b>Gradient terraces</b>	X					X	
<b>Bioengineered slopes</b>	X						
<b>Level spreader</b>			X			X	X
<b>Interceptor dike/swales</b>	X						X
<b>Check dams</b>			X				
<b>Outlet protection</b>		X	X				
<b>Riprap</b>	X	X	X				
<b>Vegetative streambank stabilization</b>		X					
<b>Bioengineered streambank stabilization</b>		X					
<b>Structural streambank stabilization</b>		X					

<b>Structural-sediment retention</b>							
<b>Filter fences</b>		X		X			
<b>Gravel filter berm</b>	X	X			X		
<b>Storm drain inlet protection</b>	X			X			
<b>Sediment trap or sump</b>		X	X		X	X	X
<b>Sediment pond or basin</b>		X	X	X	X	X	X

The Director of Public Works/City Engineer shall review all proposed site control measures for their appropriateness and applicability. The Director of Public Works/City Engineer may require additional measures to ensure water quality.

- (d) Upon completion of all permanent structures to control stormwater, all interim or temporary structures will be removed, permanent collection piping and roadways will be cleared of all sediment and/or debris, erodible areas will be stabilized with acceptable ground cover to prevent erosion within 7 days, and detention areas will be cleared of accumulations of construction sediment to provide design storage capacity prior to the formal acceptance of the development.
- (e) When projects are planned to be constructed in separate increments, the submittal of a construction sequence of the entire development is required to ensure such incremental plans are compatible with proper stormwater management until the entire project is completed.

**Sec. 78-464. – Waterway obstructions.**

- (a) It shall be unlawful to obstruct the free flow of stormwater in a waterway, channel, ditch or in any part of the drainage system or drainage way. This applies to overland surface flow unless such flow is being collected for subsequent discharge. Where trash, garbage, construction by-products, debris, sediment, vegetation growth, or other obstructions interfere with the free flow of stormwater or creates a hazard to public health, welfare and safety, the city manager shall notify the owner of record of the property, by registered mail at the owner's address as shown in the latest county tax roll, of such violation and that such violation must be corrected and the property brought into compliance with the Code of Ordinances of the city within 20 days of the date of the notice. Additionally, building permits, if any, for improvements to property on which the obstruction occurs shall be immediately revoked and a stop work order issued, and such permits shall not be reissued until such time as the obstruction is removed and any costs associated with this removal as stated in subsection (b) of this section are paid to the city. The owners, custodians or persons in possession may present their objections to the city manager's determination in writing to the city manager within the 20-day compliance period. If the city manager does

not respond to the owners', custodians', or persons' in possession objections within such period of time to their satisfaction, such owners, custodians or persons in possession may appeal to the city commission, which shall promptly consider the appeal at the next regularly scheduled commission meeting for which such appeal can be placed on the commission's agenda.

- (b) If the property owner shall fail to comply with the conditions of the notification to correct the violation or shall not otherwise have filed a written notice of appeal with the city manager, the city manager shall have the obstructions or public hazards removed from such property and shall assess the cost of such removal against the property, including the costs of postage, administrative expense, and any other costs incident thereto, which assessment shall be a lien against such property, and the city clerk shall file in the public records of the county a lien reflecting such amounts, which lien shall be collected as other taxes or assessments and may be foreclosed in accordance with the provisions of law
- (c) If any tract or parcel of land within the city shall be in violation of subsection (a) of this section, and shall require more than one notification of violation during any calendar year provided for in this section, the city shall impose a penalty in an amount as determined by resolution of the city commission for each notification subsequent to the first notification during a calendar year.
- (d) The Director of Public Works/City Engineer may authorize a temporary restriction to be placed in a waterway or channel provided such restriction is removed by the installer upon the occurrence of hazards to upstream properties, to the public health, or upon notification from the city

**Sec. 78-465. – Facilities located in rights-of-way.**

Storm sewers, watercourses, and retention/detention facilities which pass runoff from off-site upstream areas shall be located in rights-of-way or easements dedicated to the city. All pipes and appurtenances and all other items of personal property relating to drainage shall be conveyed to the city by bill of sale with warranties.

**Sec. 78-466. – Rights of inspection and emergency measures.**

The Director of Public Works/City Engineer and his designees may inspect any storm drainage system within or outside of existing easements or rights-of-way. All storm drainage facilities located on private property shall be accessible at all times for the purpose of determining compliance with drainage plan requirements or compliance with the ordinances of the city. The city may order and/or perform emergency maintenance operations on any private land or any drainage system, where in its judgment a condition exists that could be potentially injurious to life or property. Such emergency operations shall not be construed as a continuing maintenance obligation on the part of the city.

**Sec. 78-467. – Approvals required.**

The following shall require the approval of the Director of Public Works/City Engineer and other applicable regulatory agencies.

- (1) All alterations of existing natural or manmade streams, waterways, floodways, channels, ditches, or drainage structures;
- (2) The removal or placement of trees, shrubbery or vegetation within a floodway or drainage easement, and
- (3) The installation of permanent structures, restrictions, barriers, fences or other obstructions within such a drainage system.

**Sec. 78-468. - Inspections, violations and penalties.**

- (a) The city shall inspect all developments during construction to ensure not only that proper stormwater management practices are being followed but to ensure that all applicable building codes are being executed. For stormwater management, the following frequency of inspection shall be adhered to:
  - (1) For less than a 5,000 gross square foot development, not less than one inspection every six weeks.
  - (2) For a 5,000 to 10,000 gross square foot development, not less than one inspection every four weeks
  - (3) For over a 10,000 gross square foot development, not less than one inspection every two weeks
- (b) All inspectors shall have at a minimum a FDEP erosion and sediment inspector certification.
- (c) At any time during the ground disturbing activities, the inspectors can call for additional reasonable controls to ensure water quality.
- (d) The city has the authority, before, during and after ground disturbing activities, to perform inspections, surveillance and monitoring procedures necessary to determine compliance with the NPDES permit conditions, including the prohibition on illicit discharge.
- (e) Whenever the city determines that activity on a property does not comply with the approved drainage plans, including those control measures which were specified to be utilized during construction activity, or that a drainage system is unlawfully obstructed, the city may cause the issuance of a stop work order or notice of violation to the responsible owner or his agent. Such order or notice shall:
  - (1) Be in writing.
  - (2) List the specific provisions of this article which have been violated.
  - (3) State that if repairs, corrections, alterations or reconstructions are not acceptably completed and approved within a reasonable period of time, specified by the Director of Public Works/City Engineer, the violation will be subject to penalty in accordance with section 1-15 of the Code of Ordinances of the city.

**Sec. 78-469. – Appeals.**

- (a) Whenever a developer under this article or his representative is aggrieved by the decision of the Director of Public Works/City Engineer relative to the administration of any portion of this article, or whenever the Director of Public Works/City Engineer has rejected or refused to approve the design or method of construction proposed, or materials to be used in the construction of drainage facilities, or when it is claimed that the provisions of this article do not apply, or that an equally good or more desirable form of construction can be employed in any specific case, or when it is claimed that the true intent and meaning of this article or any of the criteria under this article have been misconstrued or wrongly interpreted, the engineer of record, developer or his duly authorized agent may appeal the decision of the Director of Public Works/City Engineer to the building board of adjustment and appeal. Notice of appeal shall be in writing and filed with the city clerk within 30 days after the decision has been rendered by the Director of Public Works/City Engineer.
- (b) In case of a structure which, in the opinion of the Director of Public Works/City Engineer, is unsafe or dangerous, the Director of Public Works/City Engineer may, in his order, limit the time for such appeal to a shorter period appropriate to the degree and nature of such modified appeal. A copy of such order shall be mailed to the appellant or his representative.
- (c) Appeals under this section shall be on forms provided by the city clerk.
  - (1) Public notice and public hearings. Upon an appeal to the building board of adjustment and appeal being filed:
    - a. The city clerk shall cause to be published public notice of the public hearing on such appeal at least 14 days prior to the scheduled public hearing. The applicant shall notify neighboring property owners by regular mail at least 14 days prior to such hearing of the time, date, location and substance of the public hearing in a manner identical to other hearings before the board of adjustment and appeal.
    - b. At the public hearing, the appellant or other person having interest in the matter advertised shall be heard by the building board of adjustment and appeal. The chairman will direct all proceedings of the public hearing and the board shall establish procedures under which all matters are to be heard or presented.
  - (2) Variations and modifications.
    - a. The building board of adjustment and appeal, upon consideration of the appeal being submitted under this section, may vary the application of this article to any particular case when, in its opinion, the literal enforcement thereof would do manifest injustice and would be contrary to the intent and purpose of this article or public interest, or when, in its opinion, the interpretation of this article by the Director of Public Works/City Engineer should be modified or reserved.
    - b. The decision of the building board of adjustment and appeal to vary the application of any provision of this article or to modify an

order of the Director of Public Works/City Engineer shall be specific as to what variance is to be permitted and the board may impose such conditions on the variance as it deems appropriate to protect the public welfare and conform to the intent of this article.

- (3) Decisions.
  - a Every decision of the building board of adjustment and appeal under this section shall be final, subject, however, to such remedy as any aggrieved party might have at law or in equity. It shall be in writing, and shall indicate the vote upon the decision. Every decision shall be promptly filed in the office of the city clerk and shall be open to public inspection. A copy shall be sent by mail to the appellant
  - b The building board of adjustment and appeal shall, in every case under this section, reach a decision without unreasonable or unnecessary delay

**Sec. 78-470. – Unlawful and illicit discharge enforcement.**

- (a) Evidence of an unlawful or illicit discharge shall be inspected by any authorized representative of the city qualified to perform an unlawful or illicit discharge inspection. Should evidence be present of an unlawful or illicit discharge, a Notice of Violation shall be issued and served upon the alleged violator pursuant to requirements of Sec. 22-84 of the City of Dunedin Code of Ordinances
- (b) The Notice of Violation shall contain:
  - (1) The name and address of the alleged violator,
  - (2) The address when available or a description of the building, structure or land upon which the violation(s) is/are occurring or has occurred. Should the violation(s) originate from an upstream location, the originator shall be held accountable;
  - (3) A statement specifying the nature of the violation(s);
  - (4) A description of the remedial measures necessary to restore compliance with this article and a time frame for the completion of such remedial actions,
  - (5) A statement of the penalty or penalties that shall or may be assessed against the person or entity to whom the Notice of Violation is directed;
  - (6) A statement that the determination may be appealed to the City Manager by filing a written Notice of Appeal within five business days of service of the Notice of Violation, and
  - (7) A statement specifying that should remedial work be required and should the violator fail to restore compliance within the established time schedule, the work will be done by city forces or by a contractor

hired by the city and the expense thereof shall be charged to the violator.

- (c) In the event that the alleged violator fails to take the remedial measures set forth in the Notice of Violation or otherwise fails to cure the violations described in the Notice of Violation within the time described in the Notice of Violation or the violator is alleged to be a 2nd or 3rd time offender, the city may seek a fine to be imposed pursuant to the Code Enforcement Board process, pursuant to Florida Statute Chapter 162 and Chapter 22 of the City of Dunedin Code of Ordinances.
- (d) Upon the Code Enforcement Board finding a violation(s) the violator will be assessed a civil penalty, per day or upon reaching the maximum accrued fine amount, until the violation is remediated and the area of concern is returned to original, pre-illicit/unlawful discharge, condition according to the following matrix

		EXTENT OF VIOLATION			
		VIOLATION	MINOR	MODERATE	MAJOR
<b>VIOLATOR</b>	<b>RESIDENTIAL</b>	1st Offense	Warning/Education	\$250 per violation	\$1,000 - \$5,000 per violation
		2nd Offense	\$75 per violation	\$500 per violation	
		3 or More	\$200 per violation	\$750 per violation	
	<b>COMMERCIAL</b>	1st Offense	Warning/Education	\$400 per day	\$5,000 - \$10,000 per day
		2nd Offense	\$200 per day	\$800 per day	
		3 or More	\$400 per day	\$1,200 per day	
		Max Accrued Violation	\$2,000	\$6,000	No Maximum
	<b>ACTIVE CONSTRUCTION</b>	1st Offense	NOV/Stop Work Order	\$800 per day	\$5,000 - \$10,000 per day
		2nd Offense	\$300 per day	\$1,600 per day	
		3 or More	\$500 per day	\$2,400 per day	
		Max Accrued Violation	\$2,500	\$12,000	No Maximum

- (1) Violator
  - a. Residential violators shall be considered but not limited to: homeowners, renters, visitors, homeowners performing construction or maintenance on their real property without the assistance of a licensed contractor, and persons not working in a commercial or business capacity.
  - b. Commercial violators shall be considered but not limited to businesses, employees performing tasks related to a commercial entity or business, persons working in a commercial or work-related capacity, landscapers with or without BMP certification

- c. Active Construction violators shall be considered but not limited to: active construction site contractors and active construction site employees on residential and commercial properties

(2) Extent of Violation

- a. Minor violation shall be a release or discharge of non-toxic materials such as, but not limited to: yard debris, sand, gravel, or sediment from construction activities. A minor violation shall be a discharge or release that can be repaired, removed, or cleaned to original condition without the involvement of a certified remediation specialist. A minor violation cannot be a direct discharge into the MS4 or a direct discharge to surface waters. If a violation of a minor material is purposefully discharged directly into the MS4 or to surface waters, it automatically constitutes a moderate violation.
- b. Moderate violation shall be a release or discharge of potentially harmful materials such as, but not limited to: concrete, masonry products, or uncontaminated drilling mud. A moderate violation shall be a discharge or release that may require the assistance of a certified remediation specialist, or other trained professional, but does not cause structural damage or impair the function of the drainage system. A moderate violation cannot be a direct discharge into the MS4 or a direct discharge to surface waters. If a violation of a moderate material is purposefully discharged directly into the MS4 or to surface waters, it automatically constitutes a major violation.
- c. Major violation shall be a release or discharge of toxic or health-threatening materials such as, but not limited to: sewage, paint, chemicals, or petroleum products. A major violation shall be a discharge or release that may require the assistance of a certified remediation specialist, or other trained professional. A major violation may significantly impair drainage or structures, may require removal of soil due to contamination, or replacement of pavement or structures. Willful discharges of any substance referenced in Sec 78-454 directly into the MS4 or a direct discharge to surface waters shall constitute a major violation based on the negligent manner of the violation. The fine assessed for a major violation shall be determined by the Code Enforcement Board based on evidence presented at the Code Enforcement Board hearing concerning the violation and a recommendation by the City Manager or the Director of Public Works/City Engineer.
- d. Willful discharges of any substance referenced in Sec. 78-454 directly into the MS4 or a direct discharge to surface waters shall constitute a moderate or major violation based on the negligent manner of the violation.

(3) Additional Assessment Costs

In addition to the fine assessed based on the extent of the violation and the type of violator, the city is entitled to recover the following:

- a. Remediation Costs actual costs incurred by the city for remediation
- b. Laboratory / Analyses Costs: any laboratory costs incurred by the city in the course of the investigation of the violation and the clean-up process.
- c. Administrative Costs: an administrative fee will be added to the penalty cost for investigative costs incurred by the city. A log will be kept to accurately track the total number of hours spent on a violation by city staff as well as expenses such as cost of copies and postage

(4) Order Constitutes Lien

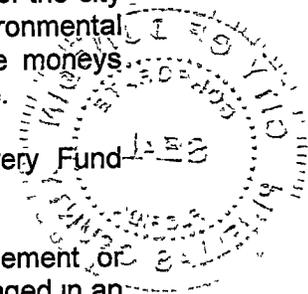
A certified copy of an order imposing a fine, or a fine plus additional assessment costs, may be recorded in the public records and thereafter shall constitute a lien against the land on which the violation exists and upon any other real or personal property owned by the violator. Upon petition to the circuit court, such order shall be enforceable in the same manner as a court judgment by the sheriffs of the state, including execution and levy against the personal property of the violator, but such order shall not be deemed a court judgment except for enforcement purposes. A lien arising from a fine imposed pursuant to this section runs in favor of the city and the city may execute a satisfaction or release of the lien entered pursuant to this section. After 3 months from the filing of any unpaid lien, the code enforcement board may authorize the city attorney to foreclose the lien or to sue to recover a money judgment for the amount of the lien plus accrued interest. No lien created pursuant to the provisions of this article may be foreclosed on real property which is homestead under s. 4(a), Art X of the State Constitution.

(e) Environmental Enforcement Recovery Fund created, purpose; maintenance; source, and disposition of moneys

(1) The City of Dunedin Environmental Enforcement Recovery Fund is hereby created for the purpose of:

- a. Mitigating the impact of damage resulting from violations of ordinances, rules, and regulations adopted by the city pertaining to the regulation of water, soil, natural resources, and animal and plant life of the city.
- b. Acquiring, protecting, restoring, and maintaining land in the city for the purpose of enhancing surface waterways or protecting vulnerable areas from sea level rise

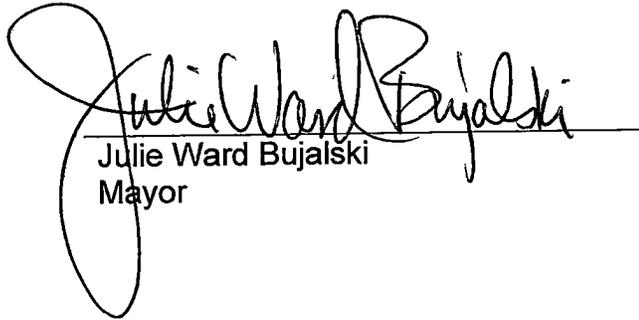
- c. Convert aging infrastructure to green infrastructure with the sole intention of improved water quality and/or conversion of infrastructure to green infrastructure with the intention of reducing sea level rise impacts.
  - d Making other expenditures that advance the purposes set forth in this article.
- (2) The City of Dunedin Environmental Enforcement Recovery Fund must be kept, maintained, and identified by the City Commission solely for the purposes set forth in this article. The Finance Director of the city is authorized to establish the City of Dunedin Environmental Enforcement Recovery Fund and to receive and disburse moneys from the fund in accordance with the provisions of this article.
- (3) The City of Dunedin Environmental Enforcement Recovery Fund consists of the following moneys:
- a. All moneys recovered in any action against, or settlement or consent order with, any person who has polluted or engaged in an activity in violation of any ordinance, rule, or regulation adopted by the City Commission pertaining to the regulation of water, soil, natural resources, or animal or plant life of the city or in an activity tending to pollute within the city. However, any moneys specified in this paragraph which are required to be deposited in alternative funds or trusts pursuant to federal, state, or local law may not be deposited in the City of Dunedin Environmental Enforcement Recovery Fund.
  - b All moneys offered to and accepted by the city for the City of Dunedin Environmental Enforcement Recovery Fund in the form of federal, state, or other governmental grants, allocations, or appropriations, as well as foundation or private grants and donations
- (4) Unless otherwise restricted by the terms and conditions of a particular grant, gift, appropriation, or allocation, all interest earned on the investment of moneys of the City of Dunedin Environmental Enforcement Recovery Fund accrue to that fund and may be disbursed only for projects authorized consistent with this article. The moneys in the City of Dunedin Environmental Enforcement Recovery Fund may be invested only in accordance with the laws pertaining to the investment of city funds.



**Sec. 78-471—78-500. - Reserved.**

**Section 2.** That this Ordinance shall become effective on the date that the local State of Emergency authorized under Executive Order 20-01 and Resolution 20-06 is lifted.

PASSED AND ADOPTED BY THE CITY COMMISSION OF THE CITY OF DUNEDIN, FLORIDA, THIS 3rd day of September, 2020.

  
Julie Ward Bujalski  
Mayor



  
Rebecca C. Schlichter  
City Clerk

READ FIRST TIME AND PASSED: July 16, 2020

READ SECOND TIME AND ADOPTED: September 3, 2020