

6.3 - STORMWATER MANAGEMENT

6.3.1 - Findings, Goals, Objectives and Authority

(1) Findings of Fact

The Board of Commissioners finds that development without control of drainage has a significant adverse impact upon the health, safety and welfare of the community. More specifically:

- (A) Uncontrolled stormwater runoff can carry pollutants into receiving water bodies, degrade water quality and result in closures of shellfishing waters;
- (B) Uncontrolled stormwater runoff can increase nutrients such as phosphorus and nitrogen, thereby accelerating eutrophication of receiving waters, adversely affecting flora and fauna;
- (C) Improperly channeling water increases the velocity of runoff, thereby increasing erosion and sedimentation;
- (D) Construction requiring the alteration of natural topography and removal of vegetation tends to cause a loss of natural recharge areas and increase erosion;
- (E) Siltation of water bodies resulting from increased erosion decreases their capacity to hold and transport water, interferes with navigation, and harms flora and fauna;
- (F) Impervious surfaces increase the volume and rate of stormwater runoff and allow less water to percolate into the soil, thereby decreasing groundwater recharge;
- (G) Improperly managed stormwater runoff can increase the incidence of flooding and the level of floods that occur, endangering property and human life;
- (H) Improperly managed stormwater runoff can interfere with the maintenance of optimum salinity in estuarine areas, thereby disrupting biological productivity;
- (I) The economy of the Town, as well as the health and welfare of its citizens, is dependent upon the preservation of pristine beaches, clean navigable waterways, abundant fishing and shellfishing resources, and a healthy ecosystem that attracts visitors to the Town.
- (J) Many future problems can be avoided or substantially mitigated if land is developed in accordance with sound stormwater runoff management practices.

(2) Goals and Purposes

The preservation of water quality and protection against flooding are central environmental goals of the Town. In order to meet these important goals, the Town adopts this stormwater management ordinance for the following purposes:

- (A) To regulate new development, redevelopment, and other construction activities within the jurisdiction of the Town, consistent with federal, state and local requirements, and the Town's environmental goals.
- (B) To provide the structure within which the authority of the Town to administer and enforce stormwater quantity and quality regulations will be exercised.

(3) Objectives

In order to protect, maintain, and enhance both the immediate and the long-term health, safety and general welfare of the citizens of the Town, this section 6.3 has the following objectives:

- (A) Promote productive and enjoyable harmony between human activities and nature;
- (B) Protect, restore and maintain the chemical, physical and biological integrity of the waters of Bogue Sound, Archer's Creek and the Atlantic Ocean;

- (C) Prevent individuals and business organizations from causing harm to the community by activities that adversely affect water resources;
- (D) Encourage the construction of drainage systems that aesthetically and functionally approximate natural systems;
- (E) Encourage the protection of natural systems and the use of them in ways that do not impair their beneficial functioning;
- (F) Encourage the use of drainage systems that minimize the consumption of electrical energy or petroleum fuels to move water, remove pollutants, or maintain the systems;
- (G) Minimize the transport of pollutants to area surface waters;
- (H) Protect and maintain natural salinity levels in estuarine areas;
- (I) Minimize erosion and sedimentation;
- (J) Prevent damage to wetlands;
- (K) Prevent damage from flooding, while recognizing that natural fluctuations in water levels are beneficial;
- (L) Protect, restore, and maintain the habitat of fish and wildlife;
- (M) Ensure the attainment of these objectives by requiring the approval and implementation of stormwater management plans for all activities that may have a significant adverse impact upon community waters and nearby properties.
- (N) Prevent or reverse salt water intrusion.

(4) Authority

The Town of Emerald Isle is authorized to adopt this ordinance pursuant to North Carolina law, including but limited to Article 14, Section 5 of the Constitution of North Carolina; G.S. 143-214.7 and rules promulgated by the Environmental Management Commission thereunder; Session Law 2006-246; G.S. 160A-174, 160A-185.

- (A) To regulate new development, redevelopment, and other construction activities within the jurisdiction of the Town, consistent with federal, state and local requirements, and the Town's environmental goals.
- (B) To provide the structure within which the authority of the Town to administer and enforce stormwater quantity and quality regulations will be exercised.

6.3.2 - Applicability, Permits, and Variances

(1) Applicability

All development and redevelopment, including, but not limited to, all single-family and duplex residential dwellings, constructed within the Town after the effective date of this section 6.3 must comply with the minimum stormwater control standards outlined in sections 6.3.2(2)(C) and 6.3.3.

(2) Stormwater Management Plan Required

- (A) Unless exempted by subsection (B) below, all development and redevelopment, including, but not limited to, single-family or duplex residential dwellings, constructed within the Town after the effective date of this ordinance must submit a storm water management plan to the Stormwater Administrator that complies with the minimum stormwater control standards outlined in this section 6.3 and related standards of this Unified Development Ordinance, and all other applicable regulations of the Town. The burden of proving compliance with the stormwater management standards and the cost associated with

producing such proof shall be borne by the applicant. The stormwater management plan must be submitted and approved before:

- (i) A preliminary plat is approved;
- (ii) An existing drainage system is altered, rerouted, or deepened; or
- (iii) A building permit is issued.

(B) Exemptions

The following development activities are exempt from the stormwater management plan requirement:

- (i) Additions or modifications to existing single family detached residential structures, if the development does not increase impervious surface by more than one thousand (1,000) square feet.
- (ii) Any maintenance, alteration, use or improvement to an existing structure not changing or affecting quality, rate, volume or location of surface water discharge.
- (iii) New subdivisions that involve only the preparation of plats that delineate lot boundary lines within the subdivision, and do not involve the construction of infrastructure to serve the subdivision.

(C) Stormwater Management Plan Standards

Stormwater management plans, when required, shall comply with all applicable provisions of this Ordinance and all other applicable regulations of the Town. It is the responsibility of an applicant to provide sufficient information in the plan so that the Town or its agents may reasonably evaluate the environmental characteristics of the affected areas, the potential and predicted impacts of the proposed activity on area surface waters, and the effectiveness and acceptability of those measures proposed by the applicant for reducing adverse impacts. The applicant shall provide maps, charts, graphs, tables, photographs, narrative descriptions and explanations, as appropriate, to demonstrate compliance with the Town's stormwater management standards.

(i) Small Residential Projects

Proposed single family and duplex residential projects with less than ten thousand (10,000) square feet of disturbed area shall adhere to the stormwater management plan requirements outlined below:

(a) Applicant Submittal Requirements

It is the responsibility of an applicant to provide sufficient information in the plan so that the Town or its agents may reasonably evaluate the environmental characteristics of the affected areas, the potential and predicted impacts of the proposed activity on area surface waters, and the effectiveness and acceptability of those measures proposed by the applicant for reducing adverse impacts. The applicant shall provide maps, charts, graphs, tables, photographs, narrative descriptions and explanations, as appropriate, to demonstrate compliance with the town's stormwater management standards.

(b) Owner and Developer Information

The applicant shall submit the name, address and telephone number of the owner and the developer.

(c) Conditions

The conditions of the site shall be described in general, including the following:

1. The direction of flow of stormwater runoff under existing conditions;
2. The location of areas on the site where stormwater collects or percolates into the ground; and
3. A survey of the site, including topography. The survey shall be prepared by a licensed surveyor showing contours every two (2) feet. It must also show the cross-section, and location of drainage ditches within the area surveyed, and the location of wetlands, and ponds.
4. At the discretion of the town or its agent, the elevation of the seasonal high water table may be required.

(d) **Proposed Alterations**

Proposed alterations of the site shall be described, including:

1. Change(s) in topography. The proposed final elevations shall be shown in a manner that can be distinguished from the existing elevations. If there are abrupt changes in elevations, these should be clearly identified in the plans. These should be plotted on a scale that is easy to read and in a form that conveys the nature of changes that are proposed.
2. The proposed area to be reserved as natural area on the property as required by the Dunes and Vegetation Protection provisions of this Unified Development Ordinance.
3. Identification and quantification of the area(s) that will be covered with impervious surface(s) and a description of the surfacing material(s).
4. The size and location of any buildings or other structures.

(e) **Impacts on Existing Conditions**

Predicted impacts of the proposed development on existing conditions shall be described in general, including:

1. Impacts on wetlands, if any;
2. Impacts on vegetation.

(f) **Stormwater Runoff Features**

All features intended to receive stormwater runoff from the proposed impervious surfaces on site shall be described and their location identified on the survey. The applicant is required to demonstrate that sufficient area is reserved to provide sixteen and sixty-seven hundredths (16.67) cubic feet of storage capacity for every one hundred (100) sq. ft. of impervious surface proposed.

(g) **Erosion and Sediment Control Measures**

A description of the measures that will be put in place for the control of erosion and sedimentation shall be provided.

(h) **Other Information**

The applicant shall provide other information which the town or its designated agent deems necessary for an evaluation of the development proposal for compliance with this chapter.

(ii) **Large Residential Projects**

A professionally designed stormwater management plan, designed and sealed by a registered design professional, and meeting all applicable requirements of this Unified

Development Ordinance shall be required for all single-family and duplex residential projects which disturb ten thousand (10,000) square feet or more of land and for all multi-family residential, commercial and industrial projects.

(a) **Professionally Drafted Plans**

The stormwater management plan for required under this subsection 6.3.2(2)(C)(ii) shall be designed and sealed by a registered design professional as described in section 6.3.2(2)(C)(iv).

(b) **Applicant Submittal Requirements**

It is the responsibility of an applicant to include in the stormwater management plan sufficient information for the town or its agents to evaluate the environmental characteristics of the affected areas, the potential and predicted impacts of the proposed activity on area surface waters, and the effectiveness and acceptability of those measures proposed by the applicant for reducing adverse impacts. The stormwater management plan shall contain maps, charts, graphs, tables, photographs, narrative descriptions and explanations and citations supporting references, as appropriate, to communicate the information required by this section and applicable sections of this Unified Development Ordinance.

(c) **Owner and Development Information**

The stormwater management plan shall contain the name, address and telephone number of the owner and the developer.

(d) **Deed Restrictions and Covenants**

The approval of the stormwater management plan requires submission of enforceable restrictions on property usage that run with the land, including deed restrictions and protective covenants, for recordation, to ensure that future development and redevelopment maintains the site consistent with the approved project stormwater plans.

(e) **Site Conditions**

The existing environmental and hydrologic conditions of the site and of receiving waters and wetlands shall be described in detail, as follows:

1. The location(s) of runoff leaving the development site along with the direction of the runoff as it exits the site;
2. The location of areas on the site where stormwater collects or percolates into the ground shall be denoted;
3. A description of all watercourses, water bodies and wetlands on or adjacent to the site or into which stormwater flows shall be provided. Information regarding their water quality and the current water quality classification, if any, given them by the state Department of Environment and Natural Resources (DENR) shall be included;
4. The depth(s) to the seasonal high groundwater table shall be provided;
5. Location of floodplains shall be denoted on the survey plan of the site;
6. A survey of the site, including topography. The survey shall be prepared by a licensed surveyor showing contours every two (2) feet. It must also show the cross section, and location of drainage ditches within the area surveyed, and the location of wetlands, and ponds. Elevation of the seasonal high water level in the ponds and wetlands shall also be shown. The geographic

coordinates of the proposed stormwater treatment system shall also be provided to include within the Town's GIS system; and

7. Soils, as delineated and described in the Soil Conservation Service Publications, Soil Survey of Carteret County, NC or Soil Survey of the NC Outer Banks. The town or its agent, at their sole discretion, may also require the developer to conduct an evaluation of the soil profile at the development site. If such an investigation is required, it shall be conducted by a registered soil scientist for the developer.

(f) **Proposed Alterations**

Proposed alterations of the site shall be described in detail, including:

1. Changes in Topography. The proposed final elevations shall be shown in a manner that can be distinguished from the existing elevations. If there are abrupt changes in elevations, these should be clearly identified in the plans. These should be plotted on a scale that is easy to read and in a form that conveys the nature of changes that are proposed.
2. Natural Area Reserve. The proposed area to be reserved as natural area on the property as required by the Dunes and Vegetation Protection provisions of this Unified Development Ordinance.
3. Impervious Surfaces. Areas that will be covered with an impervious surface and a description of the surfacing material.
4. Buildings. The size and location of any buildings or other structures.

(g) **Impacts on Existing Conditions**

Predicted impacts of the proposed development on existing conditions shall be described in detail, including:

1. Changes in the incidence and duration of flooding on the site and adjoining property;
2. Impacts on wetlands, if any;
3. Impacts on vegetation;
4. Certification by the owner/developer that all stormwater management construction and maintenance will be done according to plan; and
5. An as-built certification signature block to be executed after completion, to be signed by the owner and the qualified stormwater design professional.

(h) **Stormwater Runoff Features**

All components of the drainage system and any measures for the detention, retention, or infiltration of water or for the protection of water quality shall be described in detail, including:

1. Stormwater Quantity. The quantity of stormwater, based on a two-inch rainfall design, that will be collected on the site;
2. Detention and Retention Areas. Detention and retention areas, including plans for the discharge of contained waters;
3. Percolation Areas. Areas of the site to be used or reserved for percolation;
4. Erosion and Sediment Control Plan. A plan for the control of erosion and sedimentation which describes in detail the type and location of control measures.

5. Other Information. Any other information which the developer or the town or its designated agents believes is reasonably necessary for an evaluation of the development proposal for compliance with this chapter.

(iii) **New Subdivisions**

The stormwater management plan for new subdivisions, regardless of proposed land use, shall be designed and sealed by a registered design professional as described in section 6.3.2(2)(C)(iv) and shall include calculations of, and incorporate design features to control, the total volume of storm water runoff projected after full build-out of the subdivision.

(a) **Catchment Area**

The catchment area shall be the entire development and any adjoining areas that drain into the development site.

(b) **New Subdivision Stormwater Management Plan**

Stormwater management plans for new subdivisions shall adhere to the requirements outlined in section 6.3.2(2)(C)(ii)(a).

(c) **Individual Lot Stormwater Management Plans**

The development of a subdivision stormwater management plan in accordance with this subsection may relieve individual lot owners of the requirement to provide the required on-site infiltration required in section 6.3.3(2)(N). As individual lots within a subdivision are developed, a stormwater management plan shall be required for each lot, in accordance with section 6.3.2(2)(A) and (B). The stormwater management plan for individual lots may refer to the original subdivision stormwater management plan to meet the requirements of this chapter, however, the town or its agent may require additional on-site retention if runoff from the proposed development is not adequately controlled through the original subdivision stormwater management plan.

(iv) **Checklist for Plans**

A check list will be made available by the office of the Stormwater Administrator to facilitate the stormwater management plan approval application. A professionally designed stormwater management plan, designed and sealed by a registered design professional, shall be required for all single-family and duplex residential projects which disturb ten thousand (10,000) square feet or more of land and for all multi-family residential, commercial and industrial projects.).

(v) **Registered Design Professional**

Where stormwater management plans are required to be prepared by a registered design professional, the plan must be completed by a North Carolina registered professional with qualifications appropriate for the type of system required; these registered professionals are defined as: professional engineers; landscape architects, to the extent that G.S. ch. 89A, allow; and registered land surveyors, to the extent that the design represents incidental drainage within a subdivision, as provided in G.S. 89C-3(7).

(3) **Variance Procedure**

The Board of Adjustment may grant a variance from the provisions of this section 6.3 pursuant to the provisions of section 2.4.17, Variances.

6.3.3 - Stormwater Management Standards

(1) **Performance Standards**

The proposed development, development activity, or redevelopment shall be planned, designed, constructed, and maintained to:

- (A) Ensure that, after development or redevelopment, runoff leaving the development or redevelopment site approximates the rate of flow and timing of runoff that would have occurred following the two-inch rainfall under existing conditions and to the extent practicable, the predevelopment conditions, unless runoff is discharged into an off-site drainage facility as provided in section 6.3.3(3);
- (B) Protect the quality of surface waters;
- (C) Ensure that erosion during and after development or redevelopment is minimized;
- (D) Protect the beneficial functioning of wetlands as areas for the natural storage of surface waters and the chemical reduction and assimilation of pollutants;
- (E) Prevent the potential for increased flooding and damage to structures already located in areas known to be subject to potential flooding;
- (F) Protect the natural fluctuating levels of salinity in estuarine areas;
- (G) Minimize injury to flora and fauna and adverse impacts to fish and wildlife habitat that can be directly attributed to transport of sediment or contaminants by stormwater runoff or to recurrent flooding of natural habitats; and
- (H) Otherwise further the objectives of this section 6.3 and related provisions in this Unified Development Ordinance.

(2) **Design Standards**

To ensure attainment of the objectives of this section 6.3 and related provisions in Chapters 2 and 9, and to ensure that performance standards will be met, the design, construction and maintenance of drainage systems shall be consistent with the following standards:

(A) **Prevent Channeling**

Channeling runoff directly into water bodies shall be strictly prohibited. Instead, runoff shall be routed through swales and other systems designed to increase time of concentration, decrease velocity, increase infiltration, allow suspended solids to settle, and remove pollutants.

(B) **Minimize Land Disturbance**

The area of land disturbed by development shall be as small as practicable. Those areas that are not to be disturbed shall be protected by an adequate barrier from construction activity. Whenever possible, indigenous vegetation shall be retained and protected. Where this is not possible, suitable nature species shall be planted.

(C) **Erosion and Sediment Control Devices**

(i) No grading, cutting or filling shall be commenced until erosion and sedimentation control devices have been installed between the disturbed area and water bodies, watercourses and wetlands. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed on all perimeter dikes, swales, ditches, perimeter slopes, all slopes greater than three (3) horizontal to one (1) vertical (3:1), and embankments of ponds. Requirements for permanent stabilization shall not apply to those areas being used for material storage or for those areas where construction activities are currently being performed.

(ii) Clean sand shall be used for fill. The fines in the sand should be limited so that seepage and migration through it will facilitate normal drainage. The fill shall be

placed so as not to cause water to be diverted to adjacent property, including streets and roadways. Pipe culverts shall be installed under driveways to allow passage of water if consistent with good design practices.

- (iii) Incidental filling on previously developed residential lots may be allowed provided the incidental filling does not cause water to be diverted to adjacent property, including streets and roadways.

(D) Re-vegetation of Cleared Land

Land that has been cleared for development and upon which construction has not commenced shall be protected from erosion by appropriate techniques designed to re-vegetate the area within thirty (30) days (seeding, etc.).

(E) Retain Sediment

Sediment shall be retained on the site of the development.

(F) Protection of Wetlands and Waterbodies

Wetlands and other waterbodies shall not be used as sediment traps.

(G) Maintenance of Erosion and Sedimentation Facilities

Erosion and sedimentation facilities shall be maintained to insure that they continue to function properly.

(H) Artificial Watercourse Design

Artificial watercourses shall be designed, considering soil type, so that the velocity of flow is low enough to prevent, or minimize to the maximum extent practicable, erosion.

(I) Vegetation Buffer Strips Design

Vegetated buffer strips shall be created or, where practicable, retained in their natural state along the banks of all watercourses, water bodies or wetlands. The width of the buffer shall be sufficient to prevent erosion, trap the sediment in overland runoff, provide access to the water body and allow for periodic flooding without damage to structures. For projects that disturb more than ten thousand (10,000) square feet of land, no impervious surface shall be constructed within thirty (30) feet of any perennial or intermittent surface waters, except for roads, paths, and water dependent structures. Redevelopment activities which have no net increase in impervious surface and which provides equal or greater stormwater controls than the previous development shall not be subject to the 30-foot setback limitation contained in this paragraph.

(J) Intermittent and Ephemeral Watercourse Design

Intermittent and ephemeral watercourses will be vegetated.

(K) Usage of Detention Ponds

Detention ponds may be used to detain increased and accelerated runoff caused by development or redevelopment if the runoff is discharged to a water body, watercourse or wetland. Water shall be released from detention ponds into water bodies, watercourses or wetlands at a rate and in a manner approximating the natural flow that would have occurred before development. The drawdown rate for these ponds shall also be designed so that the water quality volume is drained no faster than forty-eight (48) hours but no slower than one hundred twenty (120) hours.

(L) Removal of Suspended Solids

For projects that disturb more than ten thousand (10,000) square feet of land, all stormwater management systems shall be designed in accordance with the state standards meeting the eighty-five (85) percent total suspended solids removal rate.

(M) Usage of Wetlands

Although the use of wetlands for storing and purifying water is encouraged, care must be taken not to overload their capacity, thereby harming the wetlands and transitional vegetation. Wetlands should not be damaged by the construction of detention ponds.

(N) Infiltration Method Design

All development must provide appropriate infiltration to control runoff of rainfall from all impervious surfaces on site as specified in section 6.3.2. The design of the infiltration method must take into account the runoff from any pervious surface drainage that is directed to the infiltration site. Flow from gutters and downspouts shall be diverted to the infiltration site, as necessary.

(O) Underground Storage of Runoff

All underground storage of runoff shall be accomplished so that there is a minimum of two (2) feet vertical separation between the highest seasonal water table and the bottom of the feature(s) used for storage.

(P) Treatment of Runoff from Parking Lots

Runoff from parking lots shall be treated to remove oil and sediment before it enters receiving waterbodies.

(Q) Detention and Retention Area Design

Detention and retention areas shall be designed so that shorelines are sinuous rather than straight and so that length of shoreline is maximized, thus offering more space for the growth of littoral vegetation.

(R) Detention and Retention Area Slopes

With the exception of bulkheaded ponds, the banks of detention and retention areas shall slope at a grade no steeper than 3 to 1 (horizontal run to vertical rise) into an area of water as a safeguard against drowning, personal injury or other accidents, to encourage the growth of vegetation and to allow the alternate flooding and exposure of areas along the shore as water levels periodically rise and fall.

(S) Usage of Drainage Facilities

The multiple use of drainage facilities and vegetated buffer zones as open space, recreation and conservation areas is encouraged.

(T) Filling of Wetlands or Ponds

Lot owners or contractors may not fill more than one thousand (1,000) sq. ft. of any part of a pond or wetland unless that pond or wetland is expanded or a new retention area is built as a replacement, provided the following conditions are met:

- The applicant receives approval from the appropriate Federal and/or State regulatory agencies,
- The applicant receives approval from the Town of Emerald Isle, and

- Any expansion or new retention area shall be constructed within the Town limits of Emerald Isle, and be capable of holding a volume of storm water at least equal to the one lost as a result of the fill.

If this should preclude any reasonable development of the lot, the applicant may apply to the Board of Adjustment for a variance.

(U) Discharge of Stormwater

New discharges to SA or SB waters and/or expansion of existing conveyance systems which discharge directly to SA or SB waters shall be prohibited.

For projects that disturb more than ten thousand (10,000) square feet of land, diffuse flow of stormwater at a nonerosive velocity to a vegetated buffer or other natural area capable of providing effective infiltration of the runoff from the one-year, 24-hour storm prior to reaching any potential off-site discharge shall not be considered a direct point of stormwater discharge. Consideration shall be given to soil type, slope, vegetation, and existing hydrology when making a qualitative determination of infiltration effectiveness.

(V) AEC Development

Development within the area of environmental concern (AEC) adjacent to outstanding resource waters (ORW), as defined by the North Carolina Division of Coastal Management, shall not exceed thirty-six (36) percent impervious coverage and shall adhere to the storm water management standards of the North Carolina Division of Coastal Management, or any successor agency (which may limit coverage to twenty-five (25) percent). The standards of the North Carolina Division of Coastal Management shall take precedence over the standards included in this section 6.3, provided, however, that the developer shall also be required to adhere to the specific standards included in this section 6.3 that are not in conflict with the standards of the North Carolina Division of Coastal Management. Redevelopment activities which have no net increase in impervious surface and which provides equal or greater stormwater controls than the previous development shall not be subject to the impervious area limitations contained in this paragraph.

(W) Prohibited Artificial Recharge

Because this practice reduces stormwater runoff storage capacity, the artificial recharge of natural ponds and/or man-made detention and retention ponds with groundwater or other water supplies is prohibited. This provision shall not apply to groundwater recharge systems installed and in regular use prior to the effective date of this section 6.3. However, the Town strongly encourages compliance with this prohibition by existing users of groundwater recharge systems.

(X) Best Stormwater Practices

For projects that disturb more than ten thousand (10,000) square feet of land that are located within one-half-mile of and that drain in whole or part to class SA waters shall design and implement the best stormwater practices that ensure reduction of fecal coliform loading. The best practices are ones that result in the highest degree of fecal die-off and control sources of fecal coliform to the maximum extent practical while still meeting the other requirements of this development ordinance.

(Y) Engineered Design Criteria

For projects that disturb more than ten thousand (10,000) square feet of land, all stormwater management systems shall meet the General Engineering Design Guidelines set forth in 15A NCAC 02H.1008(c).

(Z) **Universal Stormwater Management Program**

15A NCAC 02H.1020 UNIVERSAL STORMWATER MANAGEMENT PROGRAM, including future amendments, provides the foundation for this ordinance.

(3) **Off-site Drainage Facilities**

(A) **Conditions for Allowance of Off-site Drainage Facilities**

The Town may allow stormwater runoff that is associated with subdivisions that have an approved subdivision stormwater management plan in accordance with section 6.3.2(2)(C)(iii), or that is otherwise of unacceptable quality or that would be discharged in volumes or at rates in excess of those otherwise allowed by this section 6.3, to be discharged into drainage facilities off the site of development if each of the following conditions are met:

- (i) It is not practicable to completely manage runoff on the site in a manner that meets the performance standards and design standards of this section 6.3, or if the initial subdivision stormwater management plan was designed to accommodate the runoff from the site;
- (ii) The off-site drainage facilities and channels leading to them are designed, constructed and maintained in accordance with the requirements of this section 6.3;
- (iii) Adverse environmental impacts on the site of development will be minimized.

(B) **Requesting Use of Off-site Drainage Facilities**

A request to use off-site drainage facilities and all information related to the proposed off-site facilities should be made a part of the developer's stormwater management plan. Guidance documents to be used when designing or operating off-site drainage systems are listed in section 6.3.4.

(C) **Approval for Use of Off-site Drainage Facilities**

The use of off-site drainage facilities shall be permitted only if easements or deed restrictions to insure continued use of the drainage facility site(s) have been approved by the Town and recorded in the office of the Carteret County Register of Deeds. A copy of such recorded provisions shall be provided to the Town and shall be considered a condition of any approval granted under this section 6.3.

([Ord. of 5-13-14](#), § 1; Ord. of [2-13-18\(1\)](#), § 1)

6.3.4 - Manual of Stormwater Management Practices

(1) **Adopted Manuals of Stormwater Management Practices**

The Town adopts by reference the following published manuals of stormwater management practices for the guidance of persons preparing stormwater management plans, and designing or operating drainage systems:

- (A) NCDENR Stormwater Best Management Practices (July 2007, as amended) as published by the NC Department of Environment and Natural Resources, Division of Water Quality, Water Quality Section, 512 N. Salisbury Street, Raleigh, NC 27699.

(2) **Manuals May be Updated**

This manual may be updated periodically to reflect the most current and effective practices and shall be made available to the public at the Town hall during normal business hours.

(3) **Stormwater Administrator as Custodian of Practices**

The Stormwater Administrator will be the official custodian of these manuals and shall present subsequent revisions of it to the Board of Commissioners and Planning Board for review and approval before same shall be incorporated into the manuals.

6.3.5 - Maintenance

(1) **Dedication of Drainage Facilities**

Drainage facilities shall be dedicated to the Town where they are determined by the Board of Commissioners to be appropriately a part of the Town's maintained system.

(2) **Adequate Easements**

Any private drainage or stormwater management systems designed to serve projects which disturb more than ten thousand (10,000) square feet of land and all multi-family residential, commercial and industrial projects shall have adequate recorded easements to permit the Town to inspect and, if necessary, to take corrective action should the owner fail to properly maintain the system. A copy of such recorded provisions shall be provided to the Town and shall be considered a condition of any approval granted under this section 6.3. The Stormwater Administrator or a designated Stormwater Inspector shall inspect all properties and systems annually for any deficiencies. Drainage and stormwater treatment systems must be performing properly to remain in compliance with this ordinance.

(3) **Operations and Maintenance Plan**

Any private drainage or stormwater management systems designed to serve projects which disturb more than ten thousand (10,000) square feet of land and all multi-family residential, commercial and industrial projects shall have an adequate Operations and Maintenance Plan (O&MP). A copy of the recorded O&MP shall be provided to the Town and shall be considered a condition of any approval granted under this chapter.

(4) **Property Owner Responsibilities**

The owner of the property on which work has been done for private storm water management facilities pursuant to this section 6.3 or related regulations in this Unified Development Ordinance or any other person or agent in control of such property, shall maintain in good condition and promptly repair and restore all grade surfaces, drains, structures, and other protective devices. This includes regular removal of dead trees, leaves, debris that accumulate in ponds. Such repairs or restoration and maintenance shall be in accordance with approved plans.