



**AN ORDINANCE AMENDING THE CODE OF ORDINANCES
OF THE TOWN OF NAGS HEAD, NORTH CAROLINA**

WHEREAS, pursuant to N.C.G.S. § 160A-459 the Town of Nags Head (the "Town") is authorized to adopt and enforce a stormwater control ordinance to protect water quality and control water quantity. Pursuant to this authority, the Town has previously adopted a stormwater management ordinance which is codified as Chapter 34 of the Town's Code of Ordinances (the "Town Code") for that purpose; and

WHEREAS, pursuant to N.C.G.S. § 160A-381, the Town may enact and amend ordinances regulating the zoning and development of land within its jurisdiction and specifically the location and use of buildings, structures and land. Pursuant to this authority and the additional authority granted by N.C.G.S. Chap. 160A, Art. 19 et. seq, the Town has adopted a comprehensive zoning ordinance (the "Town's Zoning Ordinance") and has codified the same as Chapter 48 of the Town Code; and

WHEREAS, pursuant to N.C.G.S. § 160A-458 the Town may enact, amend and enforce erosion and sedimentation control ordinances as authorized by Article 4 of Chapter 113A of the General Statutes. Pursuant to this authority and additional authority granted by N.C.G.S. Chap. 160A, Art. 19 et. seq, the Town has previously adopted sedimentation and erosion control ordinances which have been codified in Chapter 28 of the Town Code and as portions of the Town's Zoning Ordinance; and

WHEREAS, pursuant to N.C.G.S. § 160A-174 the Town may also enact and amend ordinances that define, prohibit, regulate, or abate acts, omissions, or conditions, detrimental to the health, safety, or welfare of its citizens and the peace and dignity of the Town; and

WHEREAS, pursuant to N.C.G.S. § 160A-175 the Town may adopt, establish and amend procedures for exercising remedies available for violations of the Town Code; and

WHEREAS, the Town acknowledges that stormwater poses a threat to the public health, safety, and welfare, and;

WHEREAS, the Town has experienced significant localized flooding during heavy and/or frequent rain events that in many cases can be attributed to stormwater and;

WHEREAS, it is the Town's intent to preserve residential neighborhoods and to support local businesses and;

WHEREAS, the Town finds that the improper use of fill and lack of maintenance of stormwater management practices contributes to stormwater run-off and;

WHEREAS, the 2017 Comprehensive Plan states that the Town will "Ensure that stormwater runoff is properly managed to reduce nuisance flooding and pollution of sensitive environmental areas (p. 205)" and;

WHEREAS, the Town finds that to protect coastal waters we should limit non-point source pollution attributed to run-off from impervious surfaces such as parking lots and roof tops and;

WHEREAS, the Town finds that as more lots are developed and the built upon area is increased throughout Nags Head, stormwater collection and conveyance systems within the public rights-of-way are being overburdened and must be supplemented with additional management practices on private property and;

WHEREAS, the Town manages resources to protect the public infrastructure, quality of life, environment, and property of the citizens of Nags Head through fair and equitable, cost effective means, and the Stormwater Ordinance seeks to improve, enhance, and protect the quality of life for the citizens of Nags Head, and;

WHEREAS, the Town finds that these text amendments are consistent with the goals, objectives and policies of the Town's adopted Comprehensive Plan, and that this action is reasonable and in the public interest.

NOW THEREFORE BE IT ORDAINED, by the Board of Commissioners of the Town of Nags Head, North Carolina, that the Town's Code of Ordinances be amended as follows:

PART I. That **Chapter 34, Stormwater, Fill and Runoff Management**, be amended as follows:

Sec. 34-1. - Purpose of chapter.

The purpose of this chapter is to proactively protect, maintain and enhance the public health, safety, environment and general welfare by establishing requirements and procedures to control the adverse effects of fill, land disturbance and increased post-development stormwater runoff for the purposes of both water quantity management for flood prevention and water quality protection with the goals to:

- (1) Control and minimize impacts associated with stormwater runoff from all development and redevelopment.
- (2) Mitigate current stormwater problems and prevent future problems associated with stormwater runoff.
- (3) Preserve water quality through proactive management practices.
- (4) Facilitate public understanding of stormwater management.
- (5) Encourage the use of pilings and open foundations and minimize the use of fill, consistent with FEMA's coastal construction recommendations.
- (6) Improve stormwater management through use of low impact development techniques.
- (7) Establish requirements for on-going management and maintenance of stormwater management practices.
- (8) Establish application and enforcement procedures that address land disturbance, sedimentation and erosion control, the use of fill, and stormwater management practices consistent with associated town ordinances and state and federal laws and regulations, to include:
 - a. Soil erosion and sedimentation control provisions (chapter 28 of this Code)
 - b. Excavations (chapter 18 of this Code)
 - c. Flood damage prevention provisions (article II, chapter 22 of this Code)
 - d. NCDENR stormwater management (NCAC T15: 02H .1000)
 - e. NCDENR soil erosion and sedimentation control (G.S. 113A-50—113A-71)
 - f. NCDENR and Dare County Health Department subsurface, ground-absorption wastewater effluent disposal (NCAC T15A: 18A. 1900)
9. Establish public awareness of potential surface and subsurface water drainage problems recognizing that development potential of some land may be limited.
10. Regulate development and redevelopment which may create additional stormwater related burdens to the town or adjacent properties.
11. Cause every development and redevelopment employing stormwater management practices to develop a maintenance plan, and place responsibility for maintenance with the property owners.

Sec. 34-2 - Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning. All other words used in this chapter shall have their common, dictionary definition, unless specifically defined with a meaning ascribed to them in the other chapters of the town Code of Ordinances.

Base flood elevation (BFE): means a determination of the water surface elevations of the base flood as published in the flood insurance study and in accordance with the town's flood damage prevention ordinance (chapter 22).

Built-upon area (BUA): that portion of a development project that is covered by impervious materials or partially impervious surfaces and used to calculate stormwater runoff potential, including buildings; pavement and compacted gravel areas such as roads or parking lots, and paths and recreation facilities such as athletic courts and concrete pool decks. Built-upon area does not include the surface area of pools, wooden slatted decks, or un-compacted, washed gravel, or pervious or partially pervious paving material to the extent that the paving material absorbs water or allows water to infiltrate through

the paving material. Built-upon area is distinct from "lot coverage" as calculated under the zoning ordinance (chapter 48).

Best management practices or *BMPs*: also known as *Stormwater Control Measures (SCM)* or *stormwater management practices*, are techniques implemented as a way of treating or limiting pollutants and other damaging effects of stormwater runoff in order to meet legislative and North Carolina Administrative Code requirements. This term means a permanent stormwater device that is designed, constructed, and maintained to remove pollutants from stormwater runoff by promoting settling or filtration; or to mimic the natural hydrologic cycle by promoting infiltration, evapo-transpiration, post-filtration discharge, reuse of stormwater, or a combination thereof. Common stormwater control measures include, but are not limited to; infiltration systems, permeable pavements, stormwater wetlands, wet ponds, bioretention cells and vegetative treatment swales. This term encompasses two major categories of BMPs: non-structural and structural. Non-structural BMPs are typically passive or programmatic and tend to focus on source control and pollution prevention; reducing pollution in runoff by reducing the opportunity for the stormwater runoff to be exposed to pollutants. Structural BMPs refer to physical structures designed to remove pollutants from stormwater runoff, reduce downstream erosion, provide flood control, and promote groundwater recharge.

Development: any land disturbing activity that increases the amount of built-upon area or that otherwise decreases the infiltration of precipitation into the soil, including buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials, not including existing residential or commercial development already in place.

Design storm or *design depth*: rainfall event, expressed in depth, measured in inches, for the purposes of this chapter and independent of storm duration, utilized for the calculation of storage volume required for BMPs. Design storm depth varies by flood zone and use as specified in this chapter.

Drainage area: the entire area contributing surface runoff to a point of interest.

Fill: the depositing of soil, rock or other earthen materials by artificial means, but not including poured slab, asphalt, porous pavement, Turfstone™, or other manmade materials or surfaces designed in association with construction.

Fill depth: The difference between the post-development surface elevation and the pre-development surface elevation at any given point.

Grading: any cut or fill, or combination thereof, or re-compaction of soil, rock or other earthen materials.

Impacts of stormwater: impacts associated with inadequate storage, conveyance, or ponding of stormwater runoff, including erosion, intermittent flooding, or chronic flooding.

Impervious surface: any surface which, because of its material composition or compacted nature, impedes or prevents natural infiltration of stormwater into the soil.

Lot balancing: the act of grading a site utilizing existing on-site material for purposes such as providing a level building pad or vehicular areas. Lot balancing does not include the importation of fill.

Lot coverage: that portion of the lot area, expressed as a percentage, that is occupied and obstructed by any structure above the ground including, buildings, decks, parking areas, access ways, sidewalks and roadways, and all accessory uses and structures requiring location on or above the ground. Lot coverage is utilized to determine zoning compliance and is distinct from the amount of built upon area used in stormwater management calculations.

Low impact development: a stormwater management design framework aimed at minimizing the negative impacts of stormwater runoff by mimicking pre-development hydrology.

Low Impact Development Solutions to Reduce Stormwater Run-off, or the town BMP manual: the local reference guide designed to provide information for low impact development practices and which can be utilized to assist with compliance for residential projects using two feet or less of fill under this chapter. All references herein to the town BMP manual or "Low Impact Development Solutions to Reduce Stormwater Run-off," are to the latest edition or revision.

North Carolina Stormwater Best Management Practices Manual or *NCDENR BMP manual*: the stormwater design manual approved by North Carolina. All references herein to the NC BMP manual are to the latest published edition or revision.

Operations and maintenance agreement: the owner's document that is filed with the town at the time of the certificate of compliance which provides BMP maintenance instructions and inspection schedule.

Permeable pavement: paving materials that absorb water or allow water to infiltrate through the paving material. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, Turfstone™, and other proven technologies available as covered

in the NC BMP manual and as approved by the town engineer as appropriate to the existing conditions for the site of application. Compacted gravel shall not be considered permeable pavement.

Pre-development surface elevation: the land surface grades existing prior to any land disturbing or grading activities.

Post-development surface elevation: the finished or final land surface grades recorded at the completion of construction activities.

Redevelopment: any development activity that physically alters an existing developed site.

Site element: improvements to the existing land form for the purposes of development to include buildings, pavement, decks, landscaping, pools or other accessory structures.

Stormwater management system: refers to a drainage network or series of best management practices working together as part of a comprehensive approach to handling stormwater.

Stormwater retrofit: implementation of stormwater management for an existing site, which previously had no stormwater management measures in place, measures inadequate to meet the stormwater management requirements of this ordinance, or measures inadequate to meet other stormwater management goals or requirements.

Stormwater runoff: flow of surface water resulting from precipitation and distinct from runoff created by human activity such as pumping or draining.

Sec. 34-3 - Applicability of chapter provisions and exemptions.

- (a) The provisions of this chapter are applicable to all development and/or redevelopment within the jurisdiction of the town, except for land disturbance associated with investigation services, (i.e. lot or boundary survey), the evaluation of a property for septic suitability, or repair of existing septic systems.
- (b) No development activity, including clearing, grading of a lot, the deposition of fill or the stockpiling of material for future use, shall occur except in compliance with the provisions, conditions, and limitations of a land disturbance permit as issued by a zoning administrator. Other permits and plans may also be required, such as a floodplain permit, a sedimentation and erosion control permit, responsibility form, or sedimentation and erosion control plan, zoning, and building permits, in accordance with federal, state or local laws.
- (c) The applicable permit shall govern the design, installation, and construction of stormwater management and control practices on the site. Compliance after project construction is governed by the maintenance provisions of this ordinance and may require submission of a maintenance report upon request of the town.
- (d) The town shall establish a fee schedule and stormwater review policy which may be amended and updated at the board of commissioner's direction.
- (e) Applications must be complete and submitted to the planning department along with the appropriate fee established pursuant to this section. If the stormwater administrator or his or her designee finds that an application is incomplete, the applicant shall be notified of the deficient elements and shall be provided with an opportunity to submit a complete application. Before a land disturbance permit application is deemed complete, the town or the applicant may request a consultation on a concept for the post-construction stormwater management system to be utilized in the proposed development project.
- (f) Upon completion of a project, and before a certificate of compliance may be granted, the applicant shall certify that best management practices have been constructed in accordance with the approved stormwater management plans. Best management practices shall be documented on the construction record filed with the town for certificates of compliance.
- (g) Installation of all stormwater management practices installed under the requirements of this ordinance shall be made prior to certificate of compliance unless financially guaranteed. The town may enter into an agreement with the permit holder whereby the permit holder shall agree to complete all required improvements as specified on the approved land disturbance permit or stormwater plan, within a reasonable timeframe as determined by the town. To secure this agreement, the permit holder shall provide a guarantee not exceeding 1.25 times (or 125 percent of) the projected cost of the improvements in the form of a performance bond with cost estimates to be reviewed and approved by the town engineer. The surety performance bond shall be obtained from a surety bonding company authorized to do business in North Carolina and shall be payable to the Town of Nags Head. The duration of the bond shall be until such time as the improvements are approved by the town, or three years.
- (h) An approved land disturbance permit expires if work does not commence within six months of the date of issuance, or if work is discontinued for a period of more than one year, or the expiration or

completion of a building permit. A new land disturbance permit shall be obtained to replace the expired permit before work can commence or re-commence unless the planning director grants a single, one-year extension of this time limit, for good cause shown, upon receiving a written request from the applicant before the expiration of the approved plan.

Sec. 34-4. - Administration.

- (a) *Designation of stormwater administrator.* The planning director or his/her designee(s) is hereby appointed to administer and implement the provisions of this chapter.
- (b) *Duties and responsibilities of the stormwater administrator.* Duties of the stormwater administrator shall include, but not be limited to:
 - (1) Managing land disturbance permit applications and review of associated plans in accordance with the standards of this chapter;
 - (2) Issuance of land disturbance permits through the supervision of zoning administration and building inspections, so that land disturbance permits are integrated within site plan approval and any conditions placed upon a floodplain or development permit.
 - (3) Coordinating the application of this chapter with the town's engineer and zoning administration, building inspections, floodplain management, and sedimentation and erosion control program functions;
 - (4) Ensuring the enforcement of this chapter, including plan review, issuance of notices of violations, and monitoring of operations and maintenance requirements on an on-going basis;
 - (5) Maintaining up to date resource materials including the current edition of the North Carolina Best Management Practices Manual and the Town of Nags Head Best Management Manual; and
 - (6) Promoting public education and reference materials on stormwater management, flood prevention and water quality protection.

Sec. 34-5. - General standards for commercial, mixed-use and all non-single family or non-duplex residential development, including multifamily development.

- (a) Redevelopment of property with existing commercial use, mixed land uses or residential uses other than single-family or duplex residential uses does not require submission of a stormwater plan under the following circumstances:
 - (1) The redevelopment is consistent with the zoning regulations of chapter 48 of this Code relating to redevelopment and nonconformities.
 - (2) The redevelopment does not result in a net gain in built upon area.
 - (3) The redevelopment does not include the importation of any fill material; or
 - (4) The redevelopment includes a stormwater retrofit associated with flood mitigation property improvements which limits the importation of earthen fill material to no greater than 12" in depth.
- (b) All redevelopment of property with commercial uses, mixed land uses or residential uses other than single-family or duplex residential uses resulting in a net gain in built upon area requires submission of a stormwater plan showing that the stormwater runoff generated by the increase will be directed into an approved stormwater management system designed to accommodate 4.3 inches of rainfall and that any best management practices constructed for the additional runoff comply with the same commercial standards established in subsection (c), below.
- (c) All other development or redevelopment of property with commercial uses, mixed land uses or residential uses other than single-family or duplex residential uses requires submission of a stormwater plan showing that the development will meet or exceed the following standards:
 - (1) All runoff from the project's built-upon area must be directed into an approved stormwater management system designed to accommodate the volume of runoff generated by a 4.3-inch design storm.
 - (2) Infiltration systems shall provide a minimum of one foot of vertical clearance from the seasonal high water table and must be located in soils classified as sandy texture soils with a minimum infiltration rate of 0.52 inches per hour. Infiltration systems shall maintain a maximum retention time of five days for the 4.3-inch design storm.
 - (3) Wet retention systems shall maintain a minimum retention time of 48 hours and a maximum retention time of five days for the 4.3-inch design storm.
 - (4) Overflows and discharges from best management practices shall discharge to an established drainage outfall or drainage way which is maintained by a government entity or the subdivision homeowner's association or as approved by the town or other appropriate federal, state or local entity.

- (5) All required state and federal permits shall be acquired prior to the establishment of a discharge into a drainage way. In no instance shall the system discharge to adjoining private property without the written consent of the adjoining property owner, establishment of appropriate easements, and filing of maintenance agreements with the town.
 - (6) Fill shall not be permitted to exceed base flood elevation except in cases where it is placed directly beneath a slab that is designed to meet the regulatory flood protection elevation as defined in Town Code section 22-32. In these instances, fill may exceed the base flood elevation by up to 12 inches to support a turn-down or thickened edge slab or beneath a slab that is supported by a ring-wall style foundation. Fill placed above the base flood elevation shall not extend beyond the outside edge of the slab. In areas in which there is no base flood, fill shall not exceed the amount required for wastewater permits required by the Dare County Health Department, or two feet above pre-development surface elevation, whichever is higher.

In no case shall fill be placed or a lot be graded such that off-site drainage patterns are altered to direct stormwater runoff onto another property unless part of an approved plan with appropriate agreements or easements.
 - (7) Copies of operations and maintenance agreements must be filed with the town prior to the issuance of the certificate of compliance.
 - (8) During construction, to prevent adverse effects onto adjoining properties or right-of-ways, temporary and/or permanent runoff control measures shall be installed after placement of fill. This can be achieved via implementation of:
 - a. Installation of earthen diversion berms along the periphery of the property, or
 - b. Installation of permanent stormwater control measures which shall be maintained and kept operational for the duration of construction, or
 - c. Other approved methods of erosion and stormwater control measures.
 - (9) On-site permanent runoff control measures shall be installed, in conjunction with other on-site stormwater management practices, to intercept rainfall runoff from driveways that are sloped or graded towards the street or right-of-way. On-site permanent runoff control practices include, but are not limited to, slotted drains, driveway speed bumps or other approved methods of diverting, collecting and managing on-site runoff.
 - (d) Allowance for partial, temporary retention of stormwater within parking lots on all commercial sites:
 - (1) Up to 20 percent of a site's parking area may retain runoff up to 48 hours after a 4.3-inch rainfall event, so long as:
 - a. Handicap parking shall not be affected.
 - b. Drive aisles, fire lanes, loading zones, ingress and egress facilities, traffic ways, pedestrian ways and other site access features shall not be affected.
 - c. No impacts of stormwater shall be allowed to entities other than parking spaces and stormwater BMPs.
 - (e) Allowance for stormwater control and conveyance facilities built by others on town rights-of-way or on adjacent or town owned properties upon approval of the board of commissioners.
 - (1) If as part of development or redevelopment there is an opportunity to improve, mitigate or correct a drainage problem caused by stormwater runoff from the site under review, the board of commissioners may approve stormwater management improvements outside of the subject property boundary if:
 - a. An encroachment agreement and/or easement is put in place to allow for construction and use of the stormwater management improvements; and
 - b. A maintenance agreement is filed with the town establishing maintenance responsibilities and enforcement methods.
- Sec. 34-6. - General standards for residential or duplex development on individual lots.
- (a) Development or redevelopment of detached single-family and duplex residential property does not require submission of a stormwater plan under the following circumstances:
 - (1) Where there is no importation of fill.
 - ~~(1)(2)~~ Where fill is used to replace excavated or removed material only.
 - ~~(2) Where minimal fill is used to create positive drainage away from building foundations or other structures.~~

- a. ~~Any fill that exceeds 12 inches above the lot elevation prior to disturbance shall require a stormwater plan as prescribed in subsections (b) and (c) below.~~
- b. ~~Applicants shall provide pre-disturbance spot elevations to demonstrate compliance with this requirement.~~
- c. ~~In no instance shall the toe of a fill slope be within five feet of a property line, except as necessary to accommodate driveway improvements.~~

(3) Where fill is necessary to comply with a newly issued septic permit.

(4) The redevelopment includes a stormwater retrofit associated with flood mitigation property improvements which limits the importation of earthen fill material to no greater than 12" in depth; or

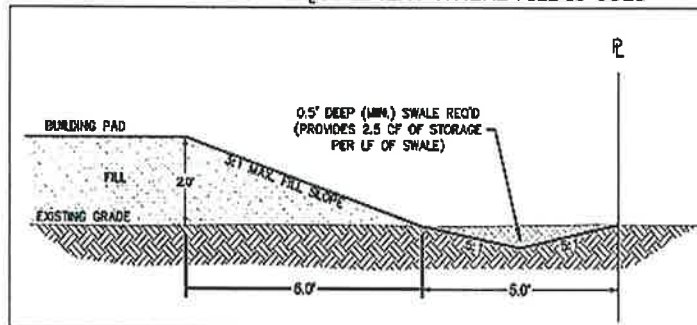
~~(4)(5) Where grading or balancing activities:~~

- a. Are performed in accordance with an approved land disturbance permit;
- b. Do not result in an increase to the lot surface elevation, except in accordance with subsections (a)(1), (a)(2), or (a)(3) ~~or (a)(4)~~ above; and
- c. Do not produce a slope or ditch which directs stormwater onto another property without appropriate agreements or easements.

(b) All other development or redevelopment of detached single-family and duplex residential property requires submission of a stormwater plan showing that the development will meet or exceed the following standards:

- (1) All runoff from the project's built-upon area must be directed into an approved stormwater management system designed to accommodate the volume of runoff generated by a 1.5-inch design storm.
- (2) Infiltration systems shall provide a minimum of one foot of vertical clearance from the seasonal high water table and must be located in soils classified as sandy textured soils within Group I or Group II designations in accordance with 15A NCAC 18.A.1941. Soils deemed suitable by the Dare County Health Department on the septic permit shall be presumed to meet this infiltration requirement. Infiltration systems shall not exceed a maximum retention time of five days for the 1.5-inch design storm.
- (3) Fill shall not be placed within five feet of a property line, except for the grading of driveway entrances, such that runoff from a fill slope is not "pitched" onto adjoining properties. A maximum of a 3:1 horizontal to vertical fill slope shall be maintained. Setback area may be used to accommodate a drainage swale. See Diagram 34-A.

DIAGRAM 34-A: SETBACK REQUIREMENT WHERE FILL IS USED



- (4) The five-foot setback requirement may be varied or waived as part of a multi-lot development of contiguous properties, or between adjacent properties if and only if a dedicated easement is established to accommodate a shared drainage swale or other BMP between adjacent properties as approved by the town engineer.
- (5) The construction and use of bulkheads, walls, and other structural controls to retain the placement of fill on property shall only be permitted:
 - a. In the immediate area of the on-site sewage disposal system as approved by the Dare County Health Department for the installation of such system, or
 - b. In those areas of the property where the naturally occurring slope exceeds 3:1 or greater in steepness, or
 - c. In those areas of where a retaining wall is necessary to achieve a five-foot setback of fill from an adjacent property boundary. Retaining walls used on fill slopes shall not be tiered,

shall not retain more than two feet of fill, and shall not exceed two feet in maximum height from final grade.

- (6) The allowable depth or elevations for fill are in subsection (c) of this section.
 - (7) Copies of operations and maintenance agreements must be filed with the town prior to the issuance of the certificate of compliance.
 - (8) During construction, to prevent adverse effects onto adjoining properties or right-of-ways, temporary and/or permanent runoff control measures shall be installed after placement of fill. This can be achieved via implementation of:
 - a. Installation of earthen diversion berms along the periphery of the property, or
 - b. Installation of permanent stormwater control measures which shall be maintained and kept operational for the duration of construction, or
 - c. Other approved methods of erosion and stormwater control measures.
 - (9) On-site permanent runoff control measures shall be installed, in conjunction with other on-site stormwater management practices, to intercept rainfall runoff from driveways that are sloped or graded towards the street or right-of-way. On-site permanent runoff control practices include, but are not limited to, slotted drains, driveway speed bumps or other approved methods of diverting, collecting and managing on-site runoff.
- (c) *Standard for depth or elevation of fill.* Any residential or duplex development or redevelopment which utilizes fill shall be limited to the following standards according to the zone as designated on the most recent flood insurance rate maps or FIRM.
- (1) *Within the Oceanfront V Zone:*
 - a. Addition of landscape fill is permitted up to two feet above the pre-development surface grade or up to base flood elevation, whichever is lower;
 - b. Fill footprint may not exceed ten percent of the lot area (see sections 48-402, 48-403, 48-404, 48-405 dimensional requirements), excluding the footprint of the active drainfield and septic system as approved by the health department in accordance with the septic permit. Lot area is defined as that portion of the lot landward of the first line of stable vegetation as defined by CAMA;
 - c. No bulkheads are allowed;
 - d. All grading and fill activities must comply with guidance provided in FEMA Technical Bulletin #5.
 - (2) *Within the Estuarine V Zone:*
 - a. Addition of fill is permitted but shall not exceed the base flood elevation.
 - i. Any use of fill exceeding two feet above the pre-development surface grade shall require an engineered stormwater management plan that captures and stores the runoff produced by a 2.15-inch rainfall event.
 - ii. Use of fill that is equal to or less than two feet above the pre-development surface grade is allowable with a non-engineered stormwater management plan that captures and stores the runoff produced by a 1.5-inch rainfall event.
 - b. Fill footprint may not exceed 50 percent of the total developable lot area (see sections 48-402, 48-403, 48-404, 48-405 dimensional requirements) as defined by CAMA, excluding:
 - i. The footprint of the active drainfield and septic system as approved by the health department in accordance with the septic permit; and
 - ii. Backfill used as part of a CAMA approved estuarine bulkhead and placed within 25 feet of the bulkhead structure.
 - (3) *All other flood zones (including AE and X):*
 - a. Fill shall not be permitted to exceed base flood elevation except in cases where it is placed directly beneath a slab that is designed to meet the regulatory flood protection elevation as defined in Town Code section 22-32. In these instances, fill may exceed the base flood elevation by up to 12 inches to support a turn-down or thickened edge slab or beneath a slab that is supported by a ring-wall style foundation. Fill placed above the base flood elevation shall not extend beyond the outside edge of the slab. In areas in which there is no base flood, fill shall not exceed the amount required for wastewater permits required by the Dare County Health Department, or two feet above pre-development surface elevation, whichever is higher.

- b. Use of fill that is equal to or less than two feet above the pre-development surface grade is allowable with a non-engineered plan that captures and stores the runoff produced by a 1.5-inch rainfall event.
- c. Use of fill exceeding two feet above pre-development surface grade shall require an engineered stormwater plan that captures and stores the runoff produced by a 2.15-inch rainfall event.

Sec. 34-7. - General standards for subdivisions.

- (a) *Commercial subdivisions.* All runoff from the subdivision's built-upon area, including proposed streets, must be directed into an approved stormwater management system designed to accommodate the runoff generated by a 4.3-inch design storm. Overflow shall not be conveyed off-site to private property or public rights-of-way for disposal except upon the establishment of appropriate easements and maintenance agreements among all impacted parties and upon town approval.
- (b) *Residential subdivisions.* All runoff from the subdivision's built-upon area, including proposed streets, must be directed into an approved stormwater management system designed to accommodate the runoff generated by a 1.5-inch design storm. Overflow shall not be conveyed off-site to private property or public rights-of-way for disposal except upon the establishment of appropriate easements and maintenance agreements among all impacted parties and upon town approval.
- (c) Management of stormwater from part or all of the future development on commercial or residential sites may be deferred in a phased plan until a given phase is subject to site plan review. The subdivision plat shall clearly identify the specific areas of future phase development and the extent to which management of stormwater is deferred.
- (d) Use of fill within proposed rights-of-way or other common areas shall not exceed base flood elevation for the zone in which the fill is proposed.
- (e) All stormwater plans must include an operation and maintenance agreement that provides for on-going maintenance of the proposed stormwater management system and which assigns responsibility to an owners association as part of any covenants or deeds that run with the individual parcels.

Sec. 34-8. - Stormwater management plan submittal and approval requirements.

(a) *Preparer's certification.*

- (1) For a project involving an individual single-family or duplex structure on a single lot wherein the importation of fill results in an elevation increase of greater than two feet, technical documents shall be prepared by a qualified and registered design professional to demonstrate compliance with this chapter. For all other single-family or duplex residential development, a design professional shall only be required if deemed necessary by the town engineer.
 - (2) For all other development, including for a commercial, mixed-use or multi-lot development such as a subdivision, stormwater management plans and supporting technical documents shall be prepared by a qualified and registered design professional knowledgeable within the field of work for the performance of the design, construction, and operation and maintenance of what is being proposed.
- (b) Supporting plans and documentation including assumptions, methodology, calculations and conclusions shall be submitted to the town as part of the application.
- (1) For residential or duplex lots that require an engineered stormwater management plan, the plan shall be submitted as part of the land disturbance permit application for approval by the town engineer.
 - (2) For residential or duplex lots that do not require an engineered stormwater management plan, the plan shall be submitted as part of the application for a building permit and shall be reviewed by the planning director or his/her designees.
 - (3) For all subdivisions and commercial applications, a stormwater management plan with all supporting documentation meeting all town requirements and standards shall be submitted with the plat or site plan application for approval by the town engineer.
 - (4) For conditional uses, a preliminary stormwater management plan shall be submitted with the conditional use permit application. A stormwater management plan with all supporting documentation meeting all town requirements and standards shall be submitted with, or in advance of, the application for a building permit.

- (c) The stormwater management plan shall include engineered drawings, non-engineered drawings, maps, assumptions, calculations and narrative statements, including:
- (1) *Existing conditions.* Sheets or maps indicating existing features, including buildings, ground surface elevations, landforms, parking areas, roadways, structures, subsurface utilities, surface utilities, surface waters, watercourses, vegetation, and other significant elements. Elevations shall be provided in sufficient detail to determine the efficacy of proposed stormwater improvements and compliance with all stormwater and fill requirements. At a minimum, pre-disturbance spot elevations shall be provided beneath proposed improvements and along property lines adjacent to any fill slopes.
 - (2) Project boundaries clearly depicted and labeled, including any staging areas.
 - (3) Locations and elevations of the adjoining street pavement, shoulder, ditches, and drainage systems, as well as upstream and downstream driveway culverts.
 - (4) Approximate elevation of seasonal high water table. "Seasonal high wetness condition" as indicated by the Dare County Health Department site evaluation is acceptable for determining vertical separation compliance of BMPs on single family and duplex residential projects. Also include any fill requirements provided with the Dare County Health septic approval.
 - (5) *Distance measurements.* Lateral and vertical separation distances from AECs, state surface waters, subsurface water conditions, above ground and underground utilities, or other separation distances as required by existing federal, state or local laws clearly depicted.
 - (6) *Proposed conditions.* Sheets or maps indicating location of proposed features including areas where fill will be placed including the toe of fill slopes, buildings, ground surface elevations, landforms, parking areas, roadways, structures, subsurface utilities, landscaping, and other significant elements.
 - (7) Drawings shall describe the proposed elements and their association with existing elements with spot elevations depicted in areas of proposed fill and finished floor elevations for all proposed buildings/structures described. Notational information shall be provided which includes existing surface elevation at each site element, proposed maximum fill depths for each site element, and maximum fill depth within the project site.
 - (8) Location and description of stormwater BMPs proposed to capture runoff from all surfaces within a given drainage area.
 - (9) *Location of erosion control measures relative to fill slopes and disturbed areas.* This shall include any temporary measures that will be necessary to retain stormwater or other construction related water discharges on the property during construction prior to the installation of final stormwater improvements.
- (d) An operations and maintenance agreement shall be submitted to and be approved by the town. The operations and maintenance agreement shall address sediment removal, mowing and re-vegetation, immediate repair of eroded areas, debris removal, and unclogging of any structures. The operations and maintenance agreement may provide for access by the town and its agents to all stormwater management measures at the site for the purposes of inspection, maintenance, reporting, and repair operations. The operations and maintenance plan shall run with the property and compliance shall be the responsibility of the property owner.
- (e) Copies of all recorded easements or covenants that run with the property and are necessary for continued function of the best management practices utilized for plan approval.
- (f) *Certification.* Upon completion of construction, stormwater management facilities shall be certified by the stormwater plan preparer or a qualified and authorized professional as having been constructed in substantial conformity with the town-approved plans and specifications. The acceptability of a certification by any other person than the person who prepared the original design shall be at the sole discretion of the town. A copy of this documentation shall be submitted to the town prior to the issuance of a certificate of compliance.
- (g) *Construction record or as-built plans.* The construction record survey or plan shall include any on-site stormwater management measures and shall be prepared once final construction has been completed. These plans shall be prepared by a licensed surveyor and shall include all of the elements shown as proposed on the approved construction plans and depict sufficient topographic information to demonstrate compliance with the approved plans. These shall be submitted to the town prior to the issuance of a certificate of compliance.

Sec. 34-9. - Operations and maintenance requirements.

- (a) Once a project is completed, stormwater management features shall be maintained in accordance with the operations and maintenance agreement.

- (1) An operations and maintenance agreement based on the operations and maintenance plan shall be executed by the owner or amongst the owners and approved by the town prior to issuance of a certificate of compliance.
- (2) The operations and maintenance agreement:
 - a. Shall require the owner or owners to maintain, repair, and if necessary, reconstruct the stormwater management features, and
 - b. Shall state the terms, conditions, and schedule of maintenance for the stormwater management features, and
 - c. May grant to the town a right of entry into the property to inspect, monitor, maintain, repair, or reconstruct the stormwater management features. However, in no case shall the right of entry confer an obligation on the town to assume responsibility for the stormwater management features.
- (3) Operations and maintenance agreement recordation requirements:
 - a. For subdivisions and commercial or mixed use development: prior to issuance of a certificate of compliance for any project served by stormwater management features required by this ordinance, the operations and maintenance agreement shall be recorded as a deed restriction or protective covenant with the Dare County Register of Deeds Office binding all subsequent property owners to compliance with the agreement.
- (b) The town-approved stormwater management system shall not be altered without approval of the town engineer.
- (c) Failure to maintain on-site stormwater management facilities shall be grounds for a notice of violation, civil penalties and possible revocation of occupancy permits in accordance with Town Code section 1-6.
- (d) The town shall maintain a location map of all stormwater BMPs permitted under this chapter.

Sec. 34-10. - Reference documents.

- (a) The town has prepared a town BMP manual entitled "Low Impact Development Solutions to Reduce Stormwater Runoff." The town will make copies of the most current town BMP manual and the most current NCDENR BMP manual available to applicants for permits under this chapter.
- (b) Applicants for permits under this chapter shall refer to the most current editions of the NCDENR BMP manual and the town's manual if citing them for the design, construction and maintenance management practices on the site associated with the application. Stormwater treatment practices that are designed, constructed, and maintained in accordance with the NCDENR BMP manual and the town BMP manual will be presumed to meet the minimum water quality and quantity performance standards of this chapter.
- (c) Applicants for permits under this chapter may propose utilization of a stormwater management practice or practices which are not designed, constructed or maintained in accordance with the NCDENR BMP manual and the town BMP manual. In such cases, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this ordinance and the practices must be approved by the town engineer.
- (d) Upon review and evaluation of an application for a permit under this chapter, the stormwater administrator may recommend management practices regarding a particular site. If upon review and inspection the stormwater administrator determines that the environmental conditions of a particular site will not support the management practices proposed by an applicant, the stormwater administrator may require reasonable changes to the application, professional certification of a particular design and/or evaluation of the proposal by the town engineer. The stormwater administrator may require any reasonable changes to an application proposed by the town engineer.

Sec. 34-11. - Discharge of stormwater, pool water, hot tub water, and de-watering effluent.

- (a) It shall be prohibited to discharge or direct water onto adjoining properties without appropriate easements or agreements from any source under the control of the owner or occupant of the premise, to include retained stormwater runoff, swimming pools, hot tubs, heating and air conditioning systems, or groundwater from de-watering activities.
- (b) Temporary discharge of retained stormwater or water from other sources into the town right-of-way is allowable only with the permission of the town manager, public works director or town engineer.
- (c) Temporary discharge of retained stormwater or water from other sources into the NCDOT right-of-way is allowable only with permission of NCDOT and a properly executed NCDOT encroachment agreement.

- (d) Upon a determination that this section is being violated, the stormwater administrator may immediately issue a notice of violation and civil citation without need for a warning citation under subsection 1-6(m). Upon receipt of the notice of violation, the violator shall immediately cease and desist the activity which is in violation of this section. In the event that a violation imminently affects public safety, health or welfare, the town may take action to abate the violation in a manner which appropriately balances the need for public safety with the need for due process of law.

Sec. 34-12. - Public/private conflicts.

Where it has been determined that stormwater runoff from town rights-of-way or town-owned facilities contributes to a stormwater runoff problem on private property, a landowner may file a written request to the board of commissioners to consider landowner's concerns or to propose a solution. The town board may consider requests and determine whether or not to take any action.

Sec. 34-13. - Drainage within town rights-of-way.

- (a) An un-obstructed flow path for drainage infrastructure along town rights-of-way shall be maintained. Town rights-of-way are necessary for legal/uncontested access by local government to drainage courses and infrastructure so that they may be constructed, maintained and improved to enhance public health and safety. Improperly installed fencing, landscaping, or the creation of other impediments or changes within the right-of-way may interfere with drainage along the roadway.
- (b) Construction or installation of permanent or temporary structures, landscaping, grading alterations, or other encroachments within, under, above, or upon any public right-of-way, are prohibited without the express permission from the town.
- (c) Homeowners shall be responsible for maintenance of town approved right-of-way encroachments, including culvert and driveway maintenance, routine grounds maintenance such as grass mowing, and trash or debris removal that may impede the flow of water within drainage conveyances.
- (d) Upon approval by the board of commissioners, the town may allow and may accept for maintenance, stormwater control and conveyance facilities built by others on town rights-of-way or on town-owned properties.
 - (1) The design of such facilities shall be approved by the town at the sole discretion of the town, and the construction of such facilities shall be in strict conformity with the approved design.
 - (2) Approval can only be granted after an identification and evaluation analysis of significant cumulative impacts on the entire drainage system, up to the ultimate point of disposal, utilizing such supporting information, documents, evaluations, studies and other resources as the town may deem necessary.
 - (3) The town may establish and impose review fees to cover the cost of design review and construction inspection, and facility fees to cover the cost of capital impacts resulting from the proposed facilities.
 - (4) The operation and maintenance of facilities accepted by the town for maintenance on town rights-of-way or town-owned property shall be at the expense of the town.

Sec. 34-14. - Penalties for violation of chapter.

Violation of this chapter shall subject the offender to remedies prescribed in section 1-6.

Sec. 34-15. - Variances, waivers and appeals.

- (a) Variances from this chapter may be granted by the board of commissioners upon approval of a vested right site plan or conditional use plan, or preliminary plat which proposes a stormwater management design, or by variance application to the board of commissioners for relief from the town's stormwater, fill and runoff management rules, consistent with provisions for obtaining variances in chapter 48, article XVI.
- (b) Appeals of administrative decisions relating to this chapter may be taken to the town's board of adjustment pursuant to the provisions for appeals under chapter 48, article XVI.

Sec. 34-16. - Conflict with other laws.

Where this chapter imposes greater restrictions or higher standards than required in any federal or state statute or other local ordinance or regulation, the provisions of this chapter shall govern. When the provisions of any other statute or local ordinance impose greater restrictions or higher standards than are required by the provisions of this chapter, the provisions of that statute or ordinance shall govern.

Sec. 34-17. - Validity.

If any section, subsection, sentence, clause or phrase of this chapter is for any reason held to be invalid, that decision shall not affect the validity of the remaining portions of this chapter. The board of commissioners declares that it would have passed the ordinance and each section, clause and phrase of it even if any one or more sections, sentences, clauses or phrases may be declared invalid.

PART II. That **Section 36-4, Design Standards**, be amended as follows:

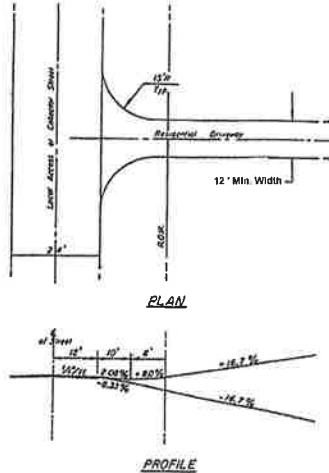
Sec. 36-4. - Design standards.

- (g) *Driveway culverts.* A culvert shall be installed in any existing town ditch or swale prior to constructing a driveway over such ditch or swale. All culverts installed in the right-of-way of any town street must be constructed of asphalt-coated steel, aluminum, or double-walled plastic and must be installed in accordance with the state department of transportation's Standard Specification, section 300-5 (A & B), laying pipe and 300-6, backfilling.
- (1) *Culvert grades.* For culverts being installed in accordance with an approved site plan, grades shall be as approved on the site plan. In the case of culverts beneath driveways not being installed in accordance with an approved site plan, the culvert will be installed by a private contractor at a grade set by the public works department.
- (2) *Culvert size.* All culverts installed in the ditch on the east side of Memorial Avenue shall be 24 inches in diameter, and all other single-family and duplex driveway culverts shall be 18 inches, unless specified otherwise by the public works department. In the case of driveways installed in accordance with an approved site plan, the culvert size shall be as approved on the site plan.
- (3) *Proposed Drainage.* In locations where driveway culverts are scheduled to be installed and an existing Town right-of-way ditch or swale has been compromised or filled in, the property owner shall be required to restore the ditch or swale section along the property frontage only. This shall be in accordance with the applicable roadway specifications in Section 36-4 (a). Further guidance may be provided by the Public Works Director, Stormwater Administrator, Town Engineer or assigned designees in order to provide connectivity to adjoining drainage infrastructure.
- ~~(4)~~(3) *Inspection.* All culverts must be inspected by the public works department prior to backfilling. It shall be the responsibility of the contractor to call the department for an inspection.
- ~~(5)~~(4) *Endwalls.* Endwalls are required on each end of all culverts installed in the ditch on the east side of Memorial Avenue and at the ends of other culverts as determined by the public works director. Endwalls shall be constructed in accordance with the state department of transportation's Roadway Standard Drawings, No. 838.01, standard concrete endwall for single and double pipe culverts 15-inch through 48-inch pipe 90 degrees skew. All culverts not required to have endwalls must have flared end sections installed in accordance with such Roadway Standard Drawings, No. 310.01, Standard Reinforced Concrete Flared End Section or No. 320.01, Standard Corrugated Metal Flared End Section.

PART III. That **Section 36-4 (f), Driveway Connections**, be amended as follows:

(f) Driveway connections.

- (1) Residential driveway connections to local access streets and collector streets shall conform to the following standards; provided, however, that in instances where the lot elevation in relation to street elevation or other topographical features renders impractical the application of the standard employed in the "plan" below, the public works director may waive compliance with the standard and prescribe an alternate standard to achieve the objective of preventing an unrestricted flow of water from the driveway onto the abutting street. To prevent deterioration of the street pavement edge and aggregate shoulder during construction of residences, it is recommended that the driveway street approach be constructed or otherwise stabilized prior to beginning of construction.
- (2) All single-family and two-family dwelling driveways shall have a driveway apron with a minimum of one but not more than two paved sections of at least 12 feet in width and not exceeding a single or combined width of 26 feet exclusive of a maximum 15-foot radius. The driveway apron shall have a minimum length of ten feet measured from the existing edge of pavement as shown in the following diagram. This section must be constructed of a minimum of four-inch thick 3,000 psi concrete or six-inch base of ABC stone topped by two inches of asphalt. The paved area within the right-of-way shall be for access purposes only and shall not be designed or used to support parking or any other use.



- (3) In accordance with Chapter 34, Stormwater, Fill, and Runoff Management, on-site permanent runoff control measures shall be installed, in conjunction with other on-site stormwater management practices, to intercept rainfall runoff from driveways that are sloped or graded towards the street or right-of-way. On-site permanent runoff control practices include, but are not limited to, slotted drains, driveway speed bumps or other approved methods of diverting, collecting and managing on-site runoff.

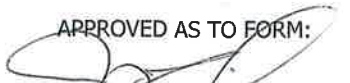
PART IV. All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed. This ordinance shall be in full force and effect from and after the 6th day of December 2017.


Benjamin Cahoon, Mayor
Town of Nags Head

ATTEST:


Carolyn F. Morris, Town Clerk

APPROVED AS TO FORM:


John Leidy, Town Attorney



Date adopted: December 6, 2017

Motion to adopt by Commissioner _____

Motion seconded by Commissioner _____

Vote: _____ AYES _____ NAYS