

**Preliminary Land Use Service (PLUS)
Comprehensive Plan Amendments and Municipal Ordinances**

Delaware State Planning Coordination
122 William Penn Street • Dover, DE 19901 • Phone: 302-739-3090 • Fax: 302-739-6958

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Date of Most Recently Certified Comprehensive Plan: June 11, 2012

Application Type:

Comprehensive Plan Amendment: Not applicable

Ordinance: Regarding Changes to FEMA Floodplain Regulations Pursuant to FEMA Review for compliance. A text amendment to Chapter 40 ("UDC"), of the New Castle County Code. (App. 2014-0605-T).

Other: _____

Comprehensive Plan Amendment or Municipal Ordinance prepared by:	
Address: ---- same as above ----	Contact Person:
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Maps Prepared by: NA.	
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Please describe the submission:

This amendment is in response to the Department of Homeland Security, Federal Emergency Management Agency issuance of a new set of maps for unincorporated New Castle County with an effective date of February 4, 2015 and map changes that require amendments to the New Castle County floodplain regulations. The new flood maps have introduced new flood zones and new flood regulations that establish standards to ensure compliance and provide reasonable safety to residents choosing to live and work in flood prone areas. Since New Castle County participates in the Community Rating System, which provides flood insurance policy holders with discounts based on the efforts of the county to reduce and prevent flood risk the amendments proposed here will maintain compliance with the Federal Flood Insurance Program and will continue to allow participation in the program.

See attached Ordinance: App. 2014-0605-T.

App. 2014-0605-T

Introduced by: Joseph M. Reda
Date of introduction:

ORDINANCE NO. 14 –

**TO AMEND THE NEW CASTLE COUNTY CODE CHAPTER 40
(ALSO KNOWN AS THE UNIFIED DEVELOPMENT CODE OR “UDC”)
REGARDING CHANGES TO FEMA FLOODPLAIN REGULATIONS
PURSUANT TO FEMA REVIEW FOR COMPLIANCE**

WHEREAS, the Department of Homeland Security, Federal Emergency Management Agency has issued a new set of maps for unincorporated New Castle County with an effective date of February 4, 2015 and these map changes require changes to the New Castle County floodplain regulations, and;

WHEREAS, the new flood maps have introduced new flood zones that require new flood regulations to establish standards to ensure compliance and provide reasonable safety to residents choosing to live and work in flood prone areas; and

WHEREAS, New Castle County participates in the Community Rating System, which provides flood insurance policy holders with discounts based on the efforts of the community to reduce and prevent flood risk, and;

WHEREAS, County Council has determined that the provisions of this Ordinance substantially advance, and are reasonably and rationally related to, legitimate government interests, including, but not limited to, the protection and preservation of the public health, safety, prosperity, general welfare, and quality of life.

NOW, THEREFORE, THE COUNTY OF NEW CASTLE HEREBY ORDAINS:

Section 1. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.100 (“Resource protection standards”), Section 40.10.110 (“Resource protection standards”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.110. Resource protection standards.

A. The protection of natural resources is achieved in three (3) ways. First, specific open space standards are proposed to protect each natural resource by [~~insuring~~] ensuring that some portion of the area remains undisturbed. Secondly, site capacity calculation (Article 5) is provided to regulate development of sites to that which is consistent with the level of protection. Lastly, specific use, protection, and mitigation standards are provided for each resource.

B. Natural resources are protected by requiring the preservation of a minimum amount of the resource [~~as open space~~] area. Such [~~open space~~] areas shall be part of the open space ratio in residential developments and part of the landscape surface ratio in nonresidential developments.

[Unless otherwise permitted in this Article or Table 40.10.210, the open space shall remain undisturbed.] Resource protection levels are specified in Table 40.10.010 and must be met within any development. Unless otherwise permitted in this Article or Table 40.10.210, the open space and/or natural resources shall remain undisturbed. The development intensity may be modified by the site capacity calculations in Division 40.05.100. Natural resource definitions are described in Division 40.33.300.

Table 40.10.010 RESOURCE PROTECTION LEVELS		
<i>Natural Resource</i>	<i>Resource Protection Levels</i>	
	<i>CN, CR, ON, OR, BP, I, HI Districts</i>	<i>All Other Districts</i>
Floodplain/floodway	1.00	1.00
Wetland [(see Section 40.10.320)]	1.00	1.00
Riparian buffer	1.00	1.00
Drainageways	0.00	0.40
Cockeysville Formation - WRPA	0.50	0.50
Cockeysville Formation Drainage Area - WRPA	0.50	0.50
Sinkhole	1.00	1.00
Wellhead - WRPA Class A	1.00	1.00
Wellhead - WRPA Class B & C	0.50	0.50
Recharge areas -WRPA	0.50	0.50
Slope or geologic sites - CNA	0.90	1.00
Steep slopes (> 25%)	1.00	1.00
Steep slopes (15-25%)	0.25	0.50
Rare species site - CNA	1.00	1.00
Forests, mature - CNA	0.70	0.85
Forests, mature	0.50	0.70
Forests, young - CNA	0.40	0.60
Forests, young	0.20	0.50
Other [CAN] CNA	0.25	0.25
Historic	See Article 15	

Section 2. *New Castle County Code Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.200 (“Open space regulations”), Section 40.10.200 (“Open space regulations”),* is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Division 40.10.200. Open space regulations.

~~[Table 40.10.010 provides the protection levels for natural resources measured in the site resource capacity calculation in Division 40.05.400.]~~ Section 40.10.210 indicates the uses for which open space and/or protected resources may be used. ~~[This Article also contains additional performance standards and mitigation requirements.]~~

Section 3. *New Castle County Code Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.200 (“Open space regulations”), Section 40.10.210 (“Uses in required open space.”),* is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.210. Uses in ~~[required]~~ open space and/or protected resources.

Table 40.10.210 lists uses that may be permitted in open space and/or protected resources ~~[when required elsewhere in this Chapter]~~. The uses listed are narrower subsets of the use categories listed in Table 40.03.110. ~~[In so doing, a closer match of the permitted uses to the resources' tolerance is provided.]~~ Any use not listed shall be considered prohibited.

Table 40.10.210 - USES IN REQUIRED OPEN SPACE AND/OR PROTECTED RESOURCES

Y = Permitted; N = Prohibited; [L] = Limited Use; S = Special Use; I = Environmental Impact Assessment Report, (See Section 40.10.410)														
Use	Natural Resource Area Open Space ***	Community Area Open Space ***	Floodway	Floodplain	Wetland	Riparian Buffer		Drainage-ways	Cockeysville Formation	Sink-hole	Wellhead/ Recharge Areas	Steep Slopes	Forests	Historic
						Zone 1	Zone 2							
Agricultural														
Apiaries	I	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Clearing	[L] I	[L] I	[L] I	N	N	N	[L] I	[L] I	[L] I	N	[L] I	I	N	[L] I
Game farms/fish hatcheries	I	Y	I	I	I	N	I	I	N	N	N	N	N	N
Field crops	I	Y	N	Y	N	N	Y	Y	Y	N	Y	N	N	Y
Orchards	I	Y	N	Y	N	N	Y	Y	Y	Y	Y	Y	N	Y
Pasture	I	Y	Y	Y	N	N	Y	N	Y	N	N	Y	N	Y
Stables	N	Y	N	N	N	N	N	N	Y	N	N	N	I	Y
Nursery	N	Y	N	[L] I	N	N	[L] I	Y	Y	N	Y	Y	N	Y
Recreation and Amusement: Outdoor Recreation														
Ball fields	N	Y	N	Y	N	N	N	Y	Y	N	Y	N	N	N
Day camps	N	[L] I	N	[L] I	N	N	[L] I	Y	Y	N	[L] I	N	[L] I	[L] I
Fishing areas	N	N	Y	Y	Y	Y	Y	Y	[L] Y	[L] Y	[L] Y	[L] Y	[L] Y	[L] Y
Hunting areas	N	N	[L] Y	[L] Y	[L] Y	[L] Y	Y	[L] Y	[L] Y	[L] Y	[L] Y	[L] Y	[L] Y	N
Golf course / driving ranges	N	N	N	[L] I	[L] I	N	[L] I	Y	Y	[L] I	Y	[L] I	[L] I	Y
Natural area	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nature center	N	Y	N	N	N	N	N	Y	Y	N	Y	Y	Y	Y
Picnic area / playground	N	Y	N	[L] I	N	N	[L] I	Y	Y	N	Y	Y	Y	Y
Pools[leisure]	N	Y	N	[L] N	N	N	[L] I	[X] N	Y	N	Y	N	N	Y

Table 40.10.210 - USES IN REQUIRED OPEN SPACE AND/OR PROTECTED RESOURCES***

Y = Permitted; N = Prohibited; [L] = Limited Use; S = Special Use; I = Environmental Impact Assessment Report, (See Section 40.10.410)														
Use	Natural Resource Area Open Space ***	Community Area Open Space ***	Floodway	Floodplain	Wetland	Riparian Buffer		Drainage-ways	Cockeysville Formation	Sink-hole	Wellhead/Recharge Areas	Steep Slopes	Forests	Historic
						Zone 1	Zone 2							
Courts and free standing decks	N	Y	N	I	N	N	I	I	Y	N	Y	N	N	Y
Shooting and archery ranges	N	N	[E]I	[E]I	N	N	[E]I	[E]I	[E]I	[E]I	[E]I	N	N	N
Trails	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Water dependent use	N	N	[E]I	[E]I	[E]I	[E]I	[E]I	Y	N	N	N	N	N	N
Utilities, Community/Region														
Public roads, bridges and appurtenances	I	N	I	I	N	I	I	Y	Y	N	[E]I	[E]I	[E]I	N
Private roads	I	N	I	I	N	I	I	Y	Y	N	[E]I	[E]I	[E]I	N
Parking lots	I	[E]Y	N	N	N	N	N	[E]I	[E]I	N	[E]I	N	N	[E]I
Essential access	I	I	I	I	I	I	I	[E]I	[E]I	N	S	S	[E]I	N
Sewer / water / utilities	Y	Y	[E]I	[E]I	[E]I	[E]I	[E]I	Y	Y	N	S	S	[E]I	Y
Land application of treated effluent	I	N	N	N	I	N	Y	N	N	N	I	N	Y	Y
Sewage & water treatment plants/pumping stations/dams and flood control structures	N	N	I	I	N	I	I	N	N	N	N	N	N	N

Table 40.10.210 - USES IN REQUIRED OPEN SPACE AND/OR PROTECTED RESOURCES***

Y = Permitted; N = Prohibited; [L = Limited Use;] S = Special Use; I = Environmental Impact Assessment Report, (See Section 40.10.410)														
Use	Natural Resource Area Open Space ***	Community Area Open Space * ***	Flood-way	Flood-plain	Wet-land	Riparian Buffer		Drainage-ways	Cockeysville Formation	Sink-hole	Wellhead/Recharge Areas	Steep Slopes	Forests	Historic
						Zone 1	Zone 2							
Stormwater management practices	Y	Y	N	I	N	N	Y	Y	I	N	I	N	Y	Y
Remedial or other activities mandated by State or Federal law	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Temporary Uses														
Public interest event	N	Y	N	N	N	N	N	Y	Y	N	Y	N	N	Y
Special event	N	Y	N	N	N	N	Y	Y	Y	N	Y	N	N	Y

* Subdivisions less than fifty (50) acres will utilize the community area open space criteria.
 ** For resource standards [for conditional and limited uses] requiring a special use or environmental impact assessment report, refer to Division 40.10.300 and Division 40.10.400.
 *** Permitted uses for natural resource area open space and community area open space not containing any specific natural resources. If the protection standards differ, between natural resource area open space and/or community area open space and specific resource categories, the stricter of the two (2) will govern.

Section 4. *New Castle County Code Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.300 (“Additional resource standards”),* is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Division 40.10.300. Additional resource standards.

The following Sections set forth additional standards that protect natural resources or permit mitigation. For all protected resources, stormwater outfalls shall be permitted, provided that the discharge velocity [~~from the terminal end of the pipe or the associated energy dissipation practice~~] does not exceed two (2) feet per second (fps) for the [~~two (2) year frequency storm~~] resource protection event. Green technology [~~stormwater~~] best management practices [~~methods~~] shall be used to convert concentrated flow to uniform[, shallow] sheet flow, filter sediments, and [~~control~~] prevent erosion.

Where, in any specific case, different sections of the Chapter specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where there is conflict between the *New Castle County Unified Development Code* and any other code or regulation in and for New Castle County or the State of Delaware, the most restrictive shall apply.

Section 5. *New Castle County Code Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.300 (“Additional resource standards”), Section 40.10.310 (“FEMA floodplains and nondelineated floodplains”),* is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.310. FEMA floodplains and nondelineated floodplains.

A. *FEMA Flood Insurance Rate Maps (FIRM) and Flood Insurance Study (FIS).* In New Castle County (community number 10585), the areas identified by the Federal Emergency Management Agency's (FEMA) as being subject to periodic inundation by the one hundred (100) year storm event, including the floodway, flood fringe and areas for which no base flood elevations are available, dated [~~October 6, 2000~~] February 4, 2015 or as later amended in digital file or paper map form. For land development plans that exceed five (5) acres in size or propose to create [~~fifty (50)~~] five (5) or more lots on parcels within or adjacent to a floodplain where base flood elevations are not available, the applicant must provide a hydrologic and hydraulic analysis pursuant to FEMA standards to establish the base flood elevations that result in changes to the maps.

B. All land disturbing (excavation or filing) activity, building construction, or development in a FEMA delineated or nondelineated floodplain shall comply with Division 40.10.300 and be

performed pursuant to authorization from the Department in the form of an approved floodplain permit as set forth in Appendix 1 of this Chapter.

C. All land disturbing activity (excavation or filling), building construction, or development conducted under the authorization of an approved floodplain permit shall comply with this Division and with the specifications and conditions contained in the permit.

D. Nondelineated floodplains are only subject to the provisions of Sections 40.10.311, 40.10.312, 40.10.314, 40.10.316 and 40.10.317.

E. Areas where unauthorized land disturbance, building construction, filling activities, or development have occurred and are determined to be in violation of this Article shall be restored to their pre-violation grade and vegetative cover. All work to address a violation of this Article must be done pursuant to an approved floodplain permit.

F. The degree of flood protection required by these regulations is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. These regulations do not imply that land outside of the special flood hazard areas or uses that are permitted within such areas will be free from flooding or flood damage. These regulations shall not create liability on the part of New Castle County, any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damage that results from reliance on these regulations or any administrative decision lawfully made hereunder.

G. A community's base flood elevations may increase or decrease resulting from physical changes affecting flood elevations. As soon as practicable, but not later than six (6) months after the date such information becomes available, New Castle County shall notify FEMA Region 3 of the changes by submitting technical or scientific data. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements will be based on current data.

Section 6. *New Castle County Code* Chapter 40 (Unified Development Code or "UDC"), Article 10 ("Environmental Standards"), Division 40.10.300 ("Additional resource standards"), Section 40.10.312 ("Floodplain boundary interpretation"), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.312. Floodplain boundary interpretation.

The methodologies listed below shall be used to delineate the limits of floodplains. If the result of any of the methodologies described below is a delineation that is different from that shown on the FEMA panel and has a real and material effect on the plan as determined by the Department, then a LOMR or LOMA must be submitted to and approved by FEMA before recordation of a subdivision/land development plan, approval of any site construction plans or issuance of a building permit. Where the boundary of the floodplain is disputed, the burden of proof shall rest with the applicant. All new land development and/or subdivision applications for either ~~fifty~~

(50) ~~five (5)~~ new lots or five (5) acres of development, whichever is the lesser, shall incorporate base flood elevation data according to the FEMA National Flood Insurance Program (NFIP) Regulations (44 CFR Part 60.3(b)).

- A. *FEMA mapped floodplains.* Those areas within the limits of the Zone A....
- B. *Nondelineated floodplain (see Division 40.33.300 for definition.* The subdivision
- C. *Watercourse.* For the purposes of these regulations, a watercourse is deliberately altered when a person causes a change to occur within its banks. Deliberate changes to the watercourse include, but are not limited to: widening, deepening or relocating the channel; installation of culverts; construction of bridges, and excavation or filling of the channel or watercourse banks. For any proposed development deliberate alteration of a watercourse, the applicant shall develop hydrologic and hydraulic engineering analysis and technical data reflecting such changes and submit such technical data to the Floodplain Administrator and to FEMA. The analysis shall be prepared by a licensed professional engineer in a format required by FEMA for a Conditional Letter of Map Revision (CLOMA) of Letter of Map Revisions (LOMA). Submittal requirements and processing fees shall be the responsibility of the applicant. The proposed alteration of a watercourse may be permitted upon submission, by the applicant, of the following:
 - 1. A description of the extent to which the watercourse will be altered or relocated as a result of the proposed development.
 - 2. A certification by a licensed professional engineer that the bank full flood carrying capacity of the watercourse will not be diminished.
 - 3. Evidence that adjacent communities, the U.S. Army Corps of Engineers, and the Delaware Department of Natural Resources and Environmental Control (Division of Watershed Stewardship) have been notified of the proposal, and evidence that such notifications have been submitted to the Federal Emergency Management Agency.
 - 4. Evidence that the applicant shall be responsible for providing the necessary maintenance for the altered or relocated portion of the watercourse so that the flood carrying capacity will not be diminished. The Floodplain Administrator may require the permit holder to enter into an agreement with New Castle County specifying the maintenance responsibilities; if an agreement is required, the permit shall be conditioned to require that the agreement be recorded on the deed of the property which shall be binding on future owners.

Section 7. *New Castle County Code Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.300 (“Additional resource standards”), Section 40.10.313 (“Regulations pertaining to activities in the floodplain”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:*

Sec. 40.10.313. Regulations pertaining to activities in the floodplain.

This Section is predicated on minimizing building or filling in the floodplain.

- A. No development or structures shall be permitted in the floodplain; however, the Department may approve development or structures in the floodplain for approved uses listed in Table 40.10.210 or as approved by a beneficial use pursuant to Section 40.10.315. To determine the impact of fill on the community, the floodplain permit application must include a detailed hydrologic and hydraulic study using methodologies and study parameters for the flow rates and incorporate existing and proposed cross sections accepted by FEMA. The applicant must secure a Conditional Letter of Map Revision (CLOMR) from FEMA before the Department issues its approval. In addition, a registered professional engineer shall prepare the design specifications and plans for submission and certify that the structures are designed and constructed to withstand the hydrostatic and hydrodynamic forces anticipated during the one hundred (100) year flood event. The proposed development activity may be permitted if the analysis demonstrates that the cumulative effect of the proposed development activity, when combined with all other existing and potential special flood hazard area encroachments will not increase the base flood elevation more than one-tenth (0.1) foot at any point.
- B. No new residential lots shall be created in the floodplain without sufficient buildable area outside of the floodplain.
- C. Neither the gross floor area nor the footprint of existing structures located in the floodplain shall be expanded.
- D. All record subdivision plans approved pursuant to this Chapter shall incorporate all floodplain areas into the required open space. Floodplain permit applications for land disturbing activities and structures in the floodplain will only be reviewed for uses listed as [~~L (limited use)~~], I (environmental impact assessment)[~~, S (special use)~~] and Y (permitted uses) in Table 40.10.210 or as approved as a Beneficial Use.
- E. Regulations pertaining to activities in the Zone A floodplain or Zone AE flood fringe:

.....

Section 8. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.300 (“Additional resource standards”), Section 40.10.314 (“Filling in the floodplain”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.314. Filling in the floodplain.

Where permitted by Table 40.10.210, or approved by variance from the Board of Adjustment, or as approved as a Beneficial Use, the following criteria shall apply to all land disturbing activities in the floodplain:

- A. No net fill shall be permitted in the floodplain; however, the Department...
- C. No proposal to fill shall result in a net loss of floodplain storage on the subject parcel(s). Compensatory storage shall be hydraulically equivalent and such equivalency shall be demonstrated through hydrologic and hydraulic engineering analyses. Compensatory storage areas shall be designed to drain freely to the watercourse. A restriction against modification of the compensatory storage shall be recorded on the deed of the property where it is located and the restriction shall be binding on future owners.
- D. The total area of floodplain on a parcel(s) shall...
- G. Where homes existing as of the date of adoption of this Article can be protected from existing flooding conditions by filling and grading activity not exceeding twenty (20) cubic yards per lot, such filling may be permitted by the Department provided all the requirements of Subsection [D] E are met.

Section 9. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.300 (“Additional resource standards”), Section 40.10.315 (“Standards for beneficial uses in floodplains”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.315. Standards for beneficial uses in floodplains.

All applicants seeking approval under a beneficial use permit application shall provide a

- A. A beneficial use application.....
- B. Any other occupied residential space shall have its lowest floor, including basement and crawlspace~~[, and lowest opening]~~ at least eighteen (18) inches above the one hundred (100) year flood elevation. All service and utility connections such as water, sewer, gas, and electrical and heating equipment shall be similarly located or buried with adequate cover to prevent erosion.
- C.

Section 10. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.300 (“Additional resource standards”), Section 40.10.316 (“Criteria for building in the floodplain”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.316. Criteria for building in the floodplain.

In reviewing an application, the Department shall consider and/or require the following:

- A. No structures for human habitation shall be permitted in the floodplain except:
 - 1. Where approved as a beneficial use per Section 40.10.315 and Division 40.31.600 or as listed as permitted in Table 40.10.210.
 - 2. ~~[Replacement]~~ Reconstruction or substantial repair of existing nonconforming structures and uses in the Zone A floodplain, Zone AE floodfringe, or nondelineated floodplain (Section 40.10.311).
- B. New construction, expansion or substantial improvement to residential and nonresidential structures shall have the lowest floor, including basement, elevated not less than eighteen (18) inches above the one hundred (100) year flood elevation within or adjacent to a floodplain. For structures in the V and VE zones, construction must comply with the V and VE building standards as described in Chapter 6 of the *New Castle County Code*. These standards require the bottom of the lowest horizontal structural member (excluding pilings and columns) to be at or above the base flood elevation plus eighteen (18) inches. Spaces below the lowest floor shall either be free of obstructions or meet the requirements of Section 40.10.316 E.
 - 1. All new and replacement water, ~~[and]~~ sanitary sewer, gas, and electrical facilities and systems shall be located, designed and constructed to minimize or eliminate flood damages and the infiltration of flood waters.
 - 2. Sanitary sewer facilities and systems shall be designed to prevent the discharge of untreated sewage into flood waters.
 - 3. No part of any on-site sewage system shall be located within any identified floodplain area except in strict compliance with all State and local regulations for such systems. If any such system is permitted, it shall be located so as to avoid harm or contamination during a flood.
- C. Wet flood proofing that allows the free flow of flood waters through the areas of a structure above its lowest floor shall not be permitted except pursuant to Subsection E. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction are in accordance with accepted standards of practice for meeting these provisions. Subgrade crawlspaces that propose the floor elevation below base flood elevation shall not be permitted.
- D. The mechanical, plumbing and other service facilities shall comply with Chapter 6.
- E. For all new construction and substantial improvements, fully enclosed areas below the lowest floor ~~[area]~~ that are useable solely for parking of vehicles, building access or

storage in an area other than a basement or crawlspace and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must be certified by a professional engineer with a background in structural design and must meet or exceed the following minimum criteria:

1. A minimum of two (2) openings on two (2) separate walls having a total net area of not less than one (1) square inch or every square foot of enclosed area subject to flooding shall be provided.
 2. The bottom of all openings shall be no higher than one (1) foot above grade.
 3. Openings may be equipped with screens, louvers or other coverings or devices provided they permit the automatic entry and exit of floodwaters.
 4. Walls and partitions are permitted below the elevated floor, provided that such walls and partitions are designed to break away under flood loads and are not part of the structural support of the building or structure.
 5. Electrical, mechanical, and plumbing system components shall not be mounted on or penetrate through walls that are designed to break away under flood loads.
 6. Walls intended to break away under flood loads shall be constructed with insect screening or open lattice, or shall be designed to break away or collapse without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Such walls, framing and connections shall have a design safe loading resistance of not less than ten (10) pounds per square foot and no more than twenty (20) pounds per square foot; or where wind loading values of the local building requirements exceed twenty (20) pounds per square foot, the applicant shall submit a certification prepared and sealed by a licensed professional engineer or licensed professional architect that:
 - a. The walls and partitions below the lowest floor have been designed to collapse from a water load less than that which would occur during the base flood.
 - b. The elevated portion of the building and supporting foundation system have been designed to withstand the effects of wind and flood loads acting simultaneously on all building components (structural and nonstructural). Water loading values used shall be those associated with the base flood; wind loading values used shall be those required by the local building requirements.
- F. Recreational vehicles in special flood hazard area shall be fully licensed and ready for highway use, and shall be placed on a site for less than 180 consecutive days. Recreational vehicles that are not fully licensed and ready for highway use, or that are to be placed on a site for more than 180 consecutive days, shall meet the requirements of 40.10.316 and 40.10.317.

[F] G. All structures, residential and nonresidential, shall be:

1. Designed and adequately anchored to prevent flotation, collapse or lateral movement of the structure.
2. Constructed with materials and utility equipment resistant to flood damage.
3. Constructed by methods and practices that minimize flood damage.

[G] H. If fill is used to raise the lowest floor to the base flood elevation:

1. Fill shall extend beyond a structure for a sufficient distance to provide acceptable access.
2. Fill material shall be compacted to provide the necessary stability and resistance to erosion, scouring and settling.
3. The grading of earthen fill shall comply with the requirements of Chapter 12 and shall be used only to the extent to which it does not adversely affect adjacent properties.
4. The placement of all structural fill for the purpose of elevating buildings is prohibited in V zones.
5. All new construction shall be located landward of the reach of mean high tide.

[H] I. A FEMA NFIP Elevation or Floodproofing Certificate must be submitted to the Department for any building constructed, substantially improved, or horizontally expanded in or adjacent to the FEMA floodplain before the certificate of occupancy is issued.

Section 11. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.300 (“Additional resource standards”), is hereby amended by adding a new section 40.10.318 (“Variances”) which is underlined as set forth below:

Sec. 40.10.318. Variances.

The Board of Adjustment shall have the power to authorize, in specific cases, such variances from the requirements of these regulations, not inconsistent with Federal regulations, as will not be contrary to the public interest where, owing to special conditions of the lot or parcel, literal enforcement of these provisions of these regulations would result in unnecessary hardship.

A. Application for a variance.

1. Any owner, or agent thereof, of property for which a variance is sought shall submit an application for a variance to the Floodplain Administrator.
2. At a minimum, such application shall contain the following information: name, address, and telephone number of the applicant; legal description of the property; parcel map; description of the existing use; description of the proposed use; location of the floodplain; description of the variance sought; and reason for variance request. Each variance application shall specifically address each of the considerations in (B) and (C) below.

B. Considerations for Variances.

In considering variance applications, the Board of Adjustment shall consider and make findings of fact on all evaluations, all relevant factors, requirements specified in other sections of these regulations, and the following factors:

1. The danger that materials may be swept onto other lands to the injury of others.
2. The danger to life and property due to flooding or erosion damage.
3. The susceptibility of the proposed development and its contents (if applicable) to flood damage and the effect of such damage on the individual owner.
4. The importance of the services provided by the proposed development to the community.
5. The availability of alternative locations for the proposed use which are not subject to, or are subject to less, flooding or erosion damage.
6. The necessity to the facility of a waterfront location, where applicable, or if the facility is a functionally dependent use.
7. The compatibility of the proposed use with existing and anticipated development.
8. The relationship of the proposed use to the comprehensive plan for that area.
9. The safety of access to the property in times of flood for ordinary and emergency vehicles.
10. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site.
11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

C. Limitations for Variances.

An affirmative decision on a variance request shall only be issued upon:

1. A showing of good and sufficient cause.
2. A determination that failure to grant the variance would result in exceptional hardship due to the physical characteristics of the property. Increased cost or inconvenience of meeting the requirements of these regulations does not constitute an exceptional hardship to the applicant.
3. A determination that the granting of a variance for development within any designated floodway, or flood hazard area with base flood elevations but no floodway, will not result in increased flood heights beyond that which is allowed in these regulations.
4. A determination that the granting of a variance will not result in additional threats to public safety; extraordinary public expense, nuisances, fraud on or victimization of the public, or conflict with existing local laws.
5. A determination that the structure or other development is protected by methods to minimize flood damages.
6. A determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

Upon consideration of the individual circumstances, the limitations and conditions, and the purposes of these regulations, the Board of Adjustment may attach such conditions to variances as it deems necessary to further the purposes of these regulations.

The Board of Adjustment shall notify any applicant to whom a variance is granted for a building or structure with a lowest floor elevation below the base flood elevation that the variance is to the floodplain management requirements of these regulations only, and that the cost of federal flood insurance will be commensurate with the increased risk.

Section 12. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.300 (“Additional resource standards”), Section 40.10.370 (“Critical natural areas (CNA)”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.370. Critical natural areas (CNA).

Where a development is in a CNA, the developer shall be notified at the preapplication conference. The application for an exploratory plan shall include a report indicating how the plan meets the standards of this Chapter and concerns and comments on the plan from the DNREC.

Where the developer can preserve greater areas of open space in the plan without losing density this may be required on the ~~advise~~ advice of DNREC.

Section 13. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.300 (“Additional resource standards”), Section 40.10.375 (“Sinkholes”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.375. Sinkholes.

A. The natural runoff ~~rate~~ reaching the sinkhole[s] shall be reduced or maintained in order to stabilize the feature. All new stormwater runoff shall be diverted around the sinkhole in lined channels or stormwater pipes ~~that eliminate~~ to prevent infiltration ~~to the groundwater~~.

B. ~~If water is~~ Any runoff permitted to drain to the sinkhole~~, all swales~~ shall be ~~protected~~ treated with ~~triple siltation~~ silt fence ~~barriers~~ and a ~~vegetated siltation~~ sediment trapping basin to protect the sinkhole from sediments.

C. No drainage from nonresidential uses shall be permitted to enter the ~~drainage to the~~ sinkhole.

Section 14. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.380 (“Water resource protection areas (WRPA)”), Section 40.10.385 (“Uniform standards and criteria”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.385. ~~Uniform standards and criteria~~ Reserved.

~~[A. The following standards and criteria shall be applicable to any limited use, special use or other use requiring an environmental impact assessment report permitted pursuant to this division:]~~

~~[1. Stormwater management facilities shall be designed and constructed in accordance with DNREC "Delaware Sediment and Stormwater Regulations," dated January 23, 1991 or as later revised.]~~

~~[2. With the exception of floodplain and erosion prone slope water resource protection areas, stormwater management and recharge facilities shall be designed with the goal of maintaining the quantity and quality of groundwater recharge at predevelopment levels. To facilitate the design of recharge facilities, a manual of best management practices for the design, construction and maintenance of recharge structures shall be developed. The manual shall be approved by the resource protection area technical advisory committee (RPATAC) and may be revised as necessary to reflect advances in recharge technology.]~~

- ~~[3. In order to establish the predevelopment standards required by Subsection A.2, a study shall be prepared under the supervision of a State-registered professional geologist or professional engineer with a background in hydrogeology. The report of the study shall be submitted to the Department, the Delaware Geological Survey and the Water Resources Agency and shall be reviewed in accordance with the procedures set forth in Article 30 for environmental impact reports.]~~
- ~~[4. In wellhead water resource protection areas all development shall be maintained at a minimum sixty (60) day horizontal time of travel from any public water supply well as established by the on-site hydrogeologic study required by Subsection A.3 or three hundred (300) feet from the public water supply well, whichever is less.]~~
- ~~[5. When facilities are proposed to augment groundwater recharge, to ensure that the quality of groundwater recharge shall be maintained, a groundwater quality monitoring program shall be established as part of the report prepared pursuant to Subsection A.3. The program shall establish the number of wells to be installed, as well as the duration and frequency regarding the monitoring of the wells to be installed. The wells shall be installed and secured in accordance with DNREC "State of Delaware Regulations Governing the Construction of Water Wells." All laboratory test results shall be submitted to the Water Resources Agency to ensure the County that satisfactory water quality is maintained.]~~
- ~~[6. Provisions for the maintenance of groundwater recharge facilities and the frequency of groundwater quality testing and monitoring shall be established by a water management agreement between the property owner and the county. The agreement shall not be amended without the approval of the County.]~~
- ~~[7. In water resource protection areas, sanitary sewer systems which utilize land application of treated effluent shall be required to use extended aeration and disinfection. Treated wastewater shall not be applied to the ground at a rate that saturates soils. Crops or vegetation to which treated wastewater is applied shall be harvested periodically to prevent a build-up of metals or other constituents in the soil or groundwater.]~~

Section 15. *New Castle County Code* Chapter 40 (Unified Development Code or "UDC"), Article 10 ("Environmental Standards"), Division 40.10.380 ("Water resource protection areas (WRPA)"), Section 40.10.387 ("Resource protection area technical advisory committee (RPATAC)"), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.387. Resource Protection Area Technical Advisory Committee (RPATAC).

A. The purposes and duties of the RPATAC are to:

1. Provide technical support and recommendations to the Department concerning the technical definition and criteria of any resource protection area or level as depicted in Table 40.01.010.

2. Advise the Department when it is determined that environmental standards contained in this Article should be amended.
3. Provide technical support and recommendations to the Department, Board of Adjustment and Planning Board concerning any application.
4. Provide technical support, review and recommendations on all variance applications concerning the reduction of the required OSR for major residential land developments depicted in Table 40.04.110.
5. Upon the request of the Department, RPATAC shall provide recommendations regarding application of the standards to rezoning, subdivision, and land development submissions relative to any issue involving a protected resource.
6. Assist the Department as requested.
7. Neither the Board of Adjustment, nor the Planning Board shall consider any application for a variance from this Article until the RPATAC has had an opportunity to review the application and make a written recommendation to the respective board. Any application for a variance from this Article shall be transmitted to the RPATAC, which shall have forty-five (45) days from the filing of the application to review and issue its recommendation.

Section 16. *New Castle County Code Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.380 (“Water resource protection areas (WRPA)”)*, Section 40.10.388 (“RPATAC review”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.388. ~~[RPATAC review]~~ Reserved.

~~[Neither the Board of Adjustment, nor the Planning Board shall consider any application for a variance from this Article until the RPATAC has had an opportunity to review the application and make a written recommendation to the respective board. Any application for a variance from this Article shall be transmitted to the RPATAC, which shall have forty-five (45) days from the filing of the application to review and issue its recommendation.]~~

Section 17. *New Castle County Code Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.400 (“Standards for open space uses”)*, is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Division 40.10.400. Standards for open space uses.

Table 40.10.210 permits ~~[limited and]~~ special uses and uses that require an environmental impact assessment report to occur in open space areas. The uses may present potential threats to the natural resource involved. This Division sets forth the standards required for approval.

Section 18. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.400 (“Standards for open space uses”), Section 40.10.405 (“Natural resource area and community open space”) is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.405. ~~[Natural resource area and community area open space]~~ Reserved.

~~[All uses indicated as “limited” within natural resource area and/or community area open space shall be permitted pursuant to Department approval. The Department shall consider the appropriateness of the proposed use within the context of the proposed plan, its open space management plan and/or the principles of conservation design.]~~

Section 19. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.400 (“Standards for open space uses”), Section 40.10.410 (“Environmental impact assessment report”) is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.410. Environmental impact assessment report.

If a proposed use requires an environmental impact assessment report, the applicant shall have such a report certified by a professional engineer, geologist or other certified professional in the applicable environmental discipline. ~~[Mitigation cannot be used where the conflict can be avoided or minimized.]~~ The report shall contain the following criteria~~[- given in order of preference]~~:

- A. *Site character.* The report shall identify all potential on-site sensitive environmental concerns.
- B. *Avoidance.* Alternative sites or routes shall be identified that would not damage the resource or result in less resource damage. Reasons shall be provided explaining why using these sites is impossible or infeasible versus that proposed.
- C. *Minimization.* The applicant shall demonstrate that the plan minimizes the impact of the activity, route, or use on the resource. The applicant shall also demonstrate that the areas impacted shall be the lowest quality and result in the least damage to the resource.
- D. *Mitigation.* A mitigation plan shall be submitted indicating mitigation activities. On-site replacement is the most acceptable form of mitigation. However, mitigation can include

restoration and enhancement after the use is abandoned. Mitigation by replacement on another site shall be at a ratio of two to one (2:1). Mitigation may also include enhancement; this ratio shall be four to one (4:1). See Table 40.10.350B. Mitigation cannot be used where the conflict can be avoided or minimized.

- E. *Conservation design.* Any activity proposed within natural resource area open space shall also demonstrate how the principles of conservation design will be [~~effected~~] affected, how they will be advanced, and how the proposed activity will be addressed in the natural resource area open space management plan.
- F. Historical Issues.
- G. The following standards and criteria shall apply for uses proposed in Water Resource Protection Areas:
 - 1. In order to establish the predevelopment standards a study shall be prepared under the supervision of a State-registered professional geologist or professional engineer with a background in hydrogeology. The study shall be submitted to the Department, the Delaware Geological Survey and the Water Resources Agency and shall be reviewed in accordance with the procedures set forth in Table 40.30.110 for environmental impact reports.
 - 2. In wellhead water resource protection areas all development shall be maintained at a minimum sixty (60) day horizontal time of travel from any public water supply well as established by the on-site hydrogeologic study or three hundred (300) feet from the public water supply well, whichever is less.
 - 3. When facilities are proposed to augment groundwater recharge, a groundwater quality monitoring program shall be established as part of the report to verify that the quality of groundwater recharge is maintained. The program shall establish the number of wells to be installed, as well as the duration and frequency regarding the monitoring of the wells. The wells shall be installed and secured in accordance with DNREC "Regulations Governing the Construction and Use of Wells." All laboratory test results shall be submitted to the Water Resources Agency.
 - 4. Provisions for the maintenance of groundwater recharge facilities and the frequency of groundwater quality testing and monitoring shall be established by a water management agreement between the property owner and the county.
 - 5. In water resource protection areas, sanitary sewer systems which utilize land application of treated effluent shall be required to use extended aeration and disinfection. Treated wastewater shall not be applied to the ground at a rate that saturates soils. Crops or vegetation to which treated wastewater is applied shall be harvested periodically to prevent a build-up of metals or other constituents in the soil or groundwater.

Section 20. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.400 (“Standards for open space uses”), Section 40.10.425 (“Playing courts and pools”) is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.425. Playing courts, free standing decks, and pools.

Only playing courts, free standing decks and in-ground pools shall be permitted in the floodplain; above-ground pools shall be prohibited. [~~Swimming in natural or artificial ponds shall be permitted.~~] The playing courts, free standing decks adjacent to existing residential structures, and in-ground pools shall be designed and located so as not to trap debris resulting in floodwater backups. No net fill shall be permitted.

Section 21. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.400 (“Standards for open space uses”), Section 40.10.427 (“Roads, parking lots and utilities”) is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.427. [~~Roads, parking lots and utilities~~] Reserved.

[~~A. All resource areas. Protected resources shall not be disturbed with roadways, parking lots or utility lines. The applicant must demonstrate no possible alternative to crossing the resource exists and the route selected must be the least disruptive.~~]

Section 22. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 10 (“Environmental Standards”), Division 40.10.500 (“Air quality”), Section 40.10.520 (“Transportation”) is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.10.520. Transportation.

It is strongly encouraged that all businesses located in the County consider participating in or establishing ride share programs in an effort to reduce auto-emissions and fossil fuel use. It is also strongly encouraged that businesses located in the County promote the use of mass transit where accessible and convenient to employees, as well as other alternative modes of transportation. Compressed work weeks are also strongly encouraged for all businesses located in the County in an effort to reduce auto-emissions and fossil fuel use.

Section 23. *New Castle County Code* Chapter 40 (Unified Development Code or “UDC”), Article 31 (“Environmental Standards”), Division 40.31.200 (“Miscellaneous application reviews”), Section 40.31.270 (“Floodplain development permit”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:

Sec. 40.31.270. Floodplain development permit.

A floodplain development permit shall be required for all proposed construction or other development in the floodplain. No person, firm, corporation, or unit of government shall initiate any development or substantial improvement, or cause the same to be done, without first obtaining a separate floodplain development permit for each structure or development. Appendix 1 to this Chapter contains application requirements. Department approval shall be required for all [~~limited uses and~~] proposed development to occur within the floodplain district. Any such use or development shall be undertaken only in strict compliance with this Chapter and this Code. Prior to the issuance of a certificate of occupancy or certificate of use, the applicant shall furnish the Department with an as-built plan, an elevation certificate, and a flood proofing certificate, if necessary.

- A. Designation of the Floodplain Administrator. The Civil Engineer II is hereby appointed to administer and implement these regulations and is referred to herein as the Floodplain Administrator. The Floodplain Administrator is authorized to: (1) Fulfill the duties and responsibilities set forth in these regulations, (2) Delegate duties and responsibilities set forth in these regulations to qualified technical personnel, plan examiners, inspectors, and other employees, or (3) Enter into a written agreement or written contract with another jurisdiction or agency, or private sector entity to administer specific provisions of these regulations. Administration of any part of these regulations by another entity shall not relieve the community of its responsibilities pursuant to the participation requirements of the National Flood Insurance Program as set forth in the Code of Federal Regulations at 44 C.F.R. Section 59.22.
- B. Duties and responsibilities of the Floodplain Administrator. The duties and responsibilities of the Floodplain Administrator shall include but are not limited to:
1. Review applications for permits to determine whether proposed activities will be located in special flood hazard areas.
 2. Interpret floodplain boundaries and provide flood elevation and flood hazard information.
 3. Advise applicants for new construction or substantial improvement of structures that are located on any coastal barrier within the Coastal Barrier Resources System established by the Coastal Barrier Resources Act that federal flood insurance is not available on such structures; areas subject to this limitation are shown on Flood Insurance Rate Maps as identified undeveloped coastal barriers or Otherwise Protected Areas.
 4. Review applications to determine whether proposed activities will be reasonably safe from flooding.

5. Review applications to determine whether all necessary permits have been obtained from those Federal, state or local agencies from which prior or concurrent approval is required.
6. Verify that applicants proposing to alter or relocate a watercourse have notified adjacent communities and the Delaware Department of Natural Resources and Environmental Control (Division of Watershed Stewardship), and have submitted copies of such notifications to the Federal Emergency Management Agency.
7. Issue permits to develop in special flood hazard areas when the provisions of these regulations have been met, or disapprove the same in the event of noncompliance.
8. Inspect buildings and lands to determine compliance with these regulations or to determine if noncompliance has occurred or violations have been committed.
9. Review submitted Elevation Certificates for completeness.
10. Submit to FEMA data and information necessary to maintain flood hazard maps, including hydrologic and hydraulic engineering analyses prepared by or for New Castle County, corrections to labeling or planimetric details, etc.
11. Maintain and permanently keep all records for public inspection that are necessary for the administration of these regulations including Flood Insurance Rate Maps, Letters of Map Amendment and Revision, records of issuance and denial of permits, determinations of whether development is in or out of special flood hazard areas for the purpose of issuing permits, elevation certificates, other required certifications, variances, and records of enforcement actions taken for violations of these regulations.
12. Enforce the provisions of these regulations.
13. Assist with and coordinate flood hazard map maintenance activities.
14. Conduct determinations as to whether existing buildings and structures damaged by any cause and located in special flood hazard areas, have been substantially damaged.
15. Make reasonable efforts to notify owners of substantially damaged buildings and structures of the need to obtain a permit prior to repair, rehabilitation, or reconstruction, and to prohibit the non-compliant repair of substantially-damaged buildings except for temporary emergency protective measures necessary to secure a property or stabilize a structure to prevent additional damage.
16. Undertake, as determined appropriate by the Floodplain Administrator due to the circumstances, other actions which may include but are not limited to: issuing

press releases, public service announcements, and other public information materials related to permit requests and repair of damaged structures; coordinating with other Federal, state, and local agencies to assist with substantial damage determinations; providing owners of damaged structures materials and other information related to the proper repair of damaged structures in special flood hazard areas; and assisting owners with National Flood Insurance Program claims for Increased Cost of Compliance payments.

17. Notify the Federal Emergency Management Agency when the corporate boundaries of the New Castle County have been modified.

C. *Permits required.* It shall be unlawful for any person or entity to begin construction or other development which is wholly within, partially within, or in contact with any identified special flood hazard area, as established in Section 1.4, including but not limited to: subdivision of land, filling, grading, or other site improvements and utility installations; construction, alteration, remodeling, improvement, replacement, reconstruction, repair, relocation, or expansion of any building or structure; placement or replacement of a manufactured home; recreational vehicles; installation or replacement of storage tanks; or alteration of any watercourse, until a permit is obtained from the New Castle County. No such permit shall be issued until the requirements of these regulations have been met.

D. *Application required.* Application for a permit shall be made by the owner of the property or his/her authorized agent, herein referred to as the applicant, prior to the actual start of construction. The application shall be on a form furnished for that purpose.

1. *Application contents.* At a minimum, applications shall include:

a.) Site plans drawn to scale showing the nature, location, dimensions, existing and proposed topography of the area in question, the limits of any portion of the site that was previously filled, and the location of existing and proposed structures, excavation, filling, storage of materials, drainage facilities, and other proposed activities.

b.) Elevation of the existing natural ground where structures are proposed, referenced to the datum on the Flood Insurance Rate Map, and an Elevation Certificate that shows the ground elevation and proposed building elevations (identified in Section C of the Elevation Certificate as "Construction Drawings").

c.) Delineation of special flood hazard areas, floodway boundaries, flood zones, and base flood elevations. Where surveyed natural ground elevations are lower than the base flood elevations, base flood elevations shall be used to delineate the boundary of special flood hazard areas. If proposed, changes in the delineation of special flood hazard areas shall be submitted to and approved by FEMA in accordance with Section 40.31.270 D2. Where special flood hazard areas are not delineated or base flood elevations are not shown on the flood hazard maps, the

Floodplain Administrator has the authority to require the applicant to use information provided by the Floodplain Administrator, information that is available from other sources, or to determine such information using accepted engineering practices.

d.) For subdivision proposals and development proposals containing at least five (5) lots or at least five (5) acres, whichever is the lesser, and where base flood elevations are not shown on Flood Insurance Rate Maps, hydrologic and hydraulic engineering analyses and studies as required by Section 40.10.310.

e.) Elevation of the lowest floor, including basement, or elevation of the bottom of the lowest horizontal structural member, as applicable to the flood zone, of all proposed structures, referenced to the datum on the Flood Insurance Rate Maps.

f.) Such other material and information as may be requested by the Floodplain Administrator necessary to determine conformance with these regulations.

g.) For work on an existing structure, including any improvement, addition, repairs, alterations, rehabilitation, or reconstruction, sufficient information to determine if the work constitutes substantial improvement, including:

i. Documentation of the market value of the structure before the improvement is started or before the damage occurred.

ii. Documentation of the actual cash value of all proposed improvement work, or the actual cash value of all work necessary to repair and restore damage to the before damaged condition, regardless of the amount of work that will be performed.

h.) Certifications and/or technical analyses prepared or conducted by an appropriate design professional licensed in the State of Delaware, as appropriate to the type of development activity proposed and required by these regulations:

i. Floodproofing Certificate for dry floodproofed non-residential structures, as required in Section 40.10.316 I.

ii. Certification that flood openings that do not meet the minimum requirements of Section 40.10.316 E are designed to automatically equalize hydrostatic flood forces.

iii. Certification that the structural design, specifications and plans, and the methods of construction to be used, are in accordance with accepted standards of practice and meet the requirements of Section 40.10.316.

iv. Technical analyses to document that the flood carrying capacity of any watercourse alteration or relocation will not be diminished and

documentation of maintenance assurances as required in Section 40.10.313 A.

- v. Hydrologic and hydraulic engineering analyses demonstrating that the cumulative effect of proposed development, when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood by more than one-tenth (0.1) foot in special flood hazard areas where the Federal Emergency Management Agency has provided base flood elevations but has not delineated a floodway, as required by Section 40.10.314 A.
- vi. Hydrologic and hydraulic engineering analyses of any development proposed to be located in an identified floodway, as required by Section 40.10.315 A.
- vii. Hydrologic and hydraulic engineering analyses to develop base flood elevations for subdivisions and large-lot developments, as required by Section 40.10.310 A or otherwise required by the Floodplain Administrator.

2. Right to submit new technical data. The applicant has the right to seek a Letter of Map Change and to submit new technical data to FEMA regarding base maps, topography, special flood hazard area boundaries, floodway boundaries, and base flood elevations. Such submissions shall be prepared in a format acceptable by FEMA and the Floodplain Administrator shall be notified of such submittal. Submittal requirements and processing fees shall be the responsibility of the applicant.

3. Requirement to submit new technical data. The Floodplain Administrator shall notify FEMA of physical changes affecting flood hazard areas and flooding conditions by submitting technical or scientific data as soon as practicable, but not later than six (6) months after the date such information becomes available. The Floodplain Administrator has the authority to require applicants to submit technical data to FEMA for Letters of Map Change.

E. Review, approval or disapproval.

1. Review. The Floodplain Administrator shall:

a.) Review applications for development in special flood hazard areas to determine the completeness of information submitted. The applicant shall be notified of incompleteness or additional information required to support the application.

b.) Review applications for compliance with these regulations after all information required in Section 40.31.270 D or identified and required by the Floodplain Administrator has been received.

c.) Review all permit applications to assure that all necessary permits have been received from those federal, state or local governmental agencies from which prior approval is required. The applicant shall be responsible for obtaining such permits, including but not limited to:

i.) Permits issued by the U.S. Army Corps of Engineers under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, and the Delaware Environmental Protection Agency under Section 401 of the Clean Water Act.

ii.) Permits required by the State of Delaware.

2. Approval or disapproval. The Floodplain Administrator shall approve applications that comply with the applicable requirements of these regulations. The Floodplain Administrator shall disapprove applications for proposed development that does not comply with the applicable provisions of these regulations and shall notify the applicant of such disapproval, in writing, stating the reasons for disapproval.

3. Expiration of permit. A permit is valid provided the actual start of construction occurs within 180 days of the date of permit issuance. If the actual start of construction is not within 180 days of the date of permit issuance, requests for extensions shall be submitted in writing. Upon reviewing the request and the permit for continued compliance with these regulations, the Floodplain Administrator may grant, in writing, one or more extensions of time, for periods not more than 180 days each.

F. Inspections. The Floodplain Administrator shall make periodic inspections of development permitted in special flood hazard areas, at appropriate times throughout the period of construction in order to monitor compliance. Such inspections may include:

1. Stake-out inspection, to determine location on the site relative to the special flood hazard area and floodway.

2. Foundation inspection, upon placement of the lowest floor and prior to further vertical construction, to collect information or certification of the elevation of the lowest floor.

3. Enclosure inspection, including crawlspaces, to determine compliance with applicable provisions.

4. Utility inspection, upon installation of specified equipment and appliances, to determine appropriate location with respect to the base flood elevation.

5. Storage of materials.

G. Submissions required prior to issuance of a certificate of occupancy. The following certifications are required to be submitted by the permittee for development that is permitted in special flood hazard areas prior to the issuance of a Certificate of Occupancy:

1. For new or substantially improved residential structures or nonresidential structures that have been elevated, an Elevation Certificate that shows the ground elevation and finished elevations (identified in Section C of the Elevation Certificate as "Finished Construction").

2. For nonresidential structures that have been dry floodproofed, a Floodproofing Certificate based on "Finished Construction" (identified in Section II).

3. For all development activities subject to the requirements of Section 40.31.270 D2, a Letter of Map Revision shall be provided.

H. Flood Insurance Rate Map use and interpretation. The Floodplain Administrator shall make interpretations, where needed, as to the exact location of special flood hazard areas, floodplain boundaries, and floodway boundaries. The following shall apply to the use and interpretation of special flood hazard maps and data:

1. In FEMA-identified special flood hazard areas where base flood elevation and floodway data have not been identified and in areas where FEMA has not identified special flood hazard areas, any other flood hazard data available from a federal, state, or other source shall be reviewed and reasonably used. When a Preliminary Flood Insurance Rate Map has been provided by FEMA to identify base flood elevation where such elevations were not previously shown, the base flood elevations on the Preliminary Flood Insurance Rate Map shall be used.

2. Special flood hazard area delineations, base flood elevations, and floodway boundaries on FEMA maps and in FEMA studies shall take precedence over delineations, base flood elevations, and floodway boundaries by any other source that reflect a reduced special flood hazard area, reduced floodway width and/or lower base flood elevations.

3. Other sources of data shall be reasonably used, with the approval of the Floodplain Administrator, if they show increased base flood elevations and/or larger floodway areas than are shown on FEMA flood maps and studies.

4. Where field surveyed topography indicates that ground elevations are below the base flood elevation, even in areas not delineated as a special flood hazard on a flood hazard map, the area shall be considered as special flood hazard area.

Section 24. *New Castle County Code Chapter 40 (Unified Development Code or “UDC”), Article 33 (“Definitions”), Division 40.33.300 (“General definitions”), is hereby amended by the deletion of the text in brackets and with strikethroughs and the addition of the underlined text as set forth below:*

Division 40.33.300. General definitions.

This Division contains the definition of words used in this Chapter.

Abandonment. That the use, structure, or sign is not used, occupied....

Base flood elevation. The water surface elevation of the base flood in relation to the datum specified on the community’s Flood Insurance Rate Map. In areas of shallow flooding, the base flood elevation is the natural grade elevation plus the depth number specified in feet on the Flood Insurance Rate Map and FIS, or at least two (2) feet in depth where the number is not specified.

Basement. [~~See Story, first~~] Any area of a building having its floor subgrade (below ground level) on all sides.

....

Crawlspace. An area under the floor space and below ground level on all sides that has its interior floor area no more than five (5) feet below the top of the next higher floor.

....

Elevation certificate. A FEMA form to be completed by a professional engineer or surveyor to document the elevation of the lowest floor, including basement and other attributes, of all new and substantially improved structures.

....

FEMA Zone VE. Area of special flood hazard subject to inundation by the one (1%) percent annual chance event of flood and subject to high velocity wave action (also referred to as coastal high hazard areas). Consequently, new construction, expansion or substantial improvement shall meet the requirements for V zone construction as described in Section 40.10.316 B.

....

Flood Insurance Study. An official report in which the Federal Emergency Management Agency has provided flood profiles, floodway information and water surface elevations.

....

Highest adjacent grade. The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

....

Limit of moderate wave action (LimWA). An area of special flood hazard subject to moderate wave action of between one and one half (1.5) to three (3) feet. For regulatory and compliance purposes, construction in this area shall be treated as if these properties are in the V zone as defined in these regulations. Consequently, new construction, expansion or substantial improvement shall meet the requirements for V zone construction as described in Section 40.10.316 B.

....

New Construction. For the purposes of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, new construction means structures for which a start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes subsequent improvements to structures.

....

Violation. The failure of a structure or other development to be fully compliant with the community’s floodplain management regulations. A structure or other development without the elevation certificate, other certifications or other evidence of compliance required by this Chapter is presumed to be in violation until such time the documentation is provided.

Section 25. Consistent with Comprehensive Development Plan. New Castle County Council finds that the provisions of this Ordinance are consistent with the spirit and intent of the New Castle County Comprehensive Development Plan.

Section 26. Inconsistent Ordinances and Resolutions Repealed. All ordinances or parts of ordinances and all resolutions or parts of resolutions that may be in conflict herewith are hereby repealed except to the extent they remain applicable to land use matters reviewed under previous Code provisions as provided in Chapter 40 of the *New Castle County Code*.

Section 27. Severability. The provisions of this Ordinance shall be severable. If any provision of this Ordinance is found by any court of competent jurisdiction to be unconstitutional or void, the remaining provisions of this Ordinance shall remain valid, unless the court finds that the valid provisions of this Ordinance are so essentially and inseparably connected with, and so dependent upon, the unconstitutional or void provision that it cannot be presumed that County Council would have enacted the remaining valid provisions without the unconstitutional or void one, or unless the court finds that the remaining valid provisions, standing alone, are incomplete and incapable of being executed in accordance with County Council’s intent. If any provision of this Ordinance or any zoning map or portion thereof is found to be unconstitutional or void, all applicable former ordinances, resolutions, zoning maps or portions thereof shall become

applicable and shall be considered as continuations thereof and not as new enactments regardless if severability is possible.

Section 28. Effective Date. This Ordinance shall become effective immediately upon passage by New Castle County and approval by the County Executive or as otherwise provided in 9 *Del. C.* § 1156.

Approved on:

Adopted by County Council of
New Castle County on:

County Executive

President of New Castle County Council

SYNOPSIS: This text amendment is in response to the Department of Homeland Security, Federal Emergency Management Agency issuance of a new set of maps for unincorporated New Castle County with an effective date of February 4, 2015 and map changes that require amendments to the New Castle County floodplain regulations. The new flood maps have introduced new flood zones and new flood regulations that establish standards to ensure compliance and provide reasonable safety to residents choosing to live and work in flood prone areas. Since New Castle County participates in the Community Rating System, which provides flood insurance policy holders with discounts based on the efforts of the county to reduce and prevent flood risk the amendments proposed here will maintain compliance with the Federal Flood Insurance Program and will continue to allow participation in the program.

FISCAL NOTE: This ordinance will have no discernable fiscal impact.