

ORANGE COUNTY PLANNING DEPARTMENT  
131 W. MARGARET LANE, SUITE 201  
HILLSBOROUGH, NORTH CAROLINA 27278



**AGENDA**  
**ORANGE COUNTY PLANNING BOARD**

**ORANGE COUNTY WEST CAMPUS OFFICE BUILDING**  
**131 WEST MARGARET LANE – LOWER LEVEL CONFERENCE ROOM (ROOM #004)**  
**HILLSBOROUGH, NORTH CAROLINA 27278**  
**Wednesday, April 1, 2015**  
**Ordinance Review Committee Meeting – 6:30 pm**

**Note:** This is a meeting of the Ordinance Review Committee (ORC) for Planning Board members who would like to review and comment on the proposed amendments before the items are placed on the next Quarterly Public Hearing agenda. Attendance is not mandatory and a quorum is not necessary for meetings of the ORC.

<u>No.</u>	<u>Page(s)</u>	<u>Agenda Item</u>
1.		<b>CALL TO ORDER</b>
	3-22	<b>UNIFIED DEVELOPMENT ORDINANCE (UDO) TEXT AMENDMENTS – SIGN REGULATIONS</b>  To review and comment upon proposed revisions to the UDO to modify the existing regulations pertaining to signs. This item was previously sent out via e-mail for Planning Board review and was on the February 19, 2015 quarterly public hearing agenda but the hearing was canceled due to inclement weather. Staff is bringing these proposed amendments to ORC since time now permits staff to do so.  <b>Presenter:</b> Michael Harvey, Current Planning Supervisor
2.	23-46	<b>UNIFIED DEVELOPMENT ORDINANCE (UDO) TEXT AMENDMENTS – IMPERVIOUS SURFACE</b>  To review and comment upon proposed revisions to the UDO to modify the existing regulations pertaining to impervious surface.  <b>Presenter:</b> Michael Harvey, Current Planning Supervisor
3.		<b>ADJOURNMENT</b>

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**ORANGE COUNTY  
PLANNING BOARD ORDINANCE REVIEW COMMITTEE  
ACTION AGENDA ITEM ABSTRACT  
Meeting Date: April 1, 2015**

**Action Agenda  
Item No. 1**

**SUBJECT:** Unified Development Ordinance (UDO) Text Amendment – Sign Regulations

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**DEPARTMENT:** Planning and Inspections

**PUBLIC HEARING: (Y/N)**

No

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**ATTACHMENT(S):**

**INFORMATION CONTACT:**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Comprehensive Plan and Unified Development Ordinance Outline Form (UDO &amp; Zoning 2014-12)</li> <li>2. Draft UDO Text Amendment</li> </ol> | <p>Michael D. Harvey, Planner III (919) 245-2597<br/>         Craig Benedict, Director (919) 245-2575</p> |
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**PURPOSE:** To review and comment upon Planning Director initiated Unified Development Ordinance (UDO) text amendments modifying existing sign regulations.

**BACKGROUND:** Please see Section B of Attachment 1 for relevant information.

The “Amendment Outline Form” (Attachment 1) for these amendments was approved by the BOCC at its January 22, 2015 regular meeting.

Planning Board members were e-mailed a copy of the proposed amendment package in advance of the February Quarterly Public Hearing, which was cancelled due to weather.

Staff is asking for a second review of the amendment package by the Planning Board in preparation for the items review at the May 26, 2015 Quarterly Public Hearing.

**FINANCIAL IMPACT:** Please refer to Section C.3 of Attachment 1.

**RECOMMENDATION(S):** The Planning Director recommends the Board review and comment on the proposed amendment package.

# COMPREHENSIVE PLAN / FUTURE LAND USE MAP AND UNIFIED DEVELOPMENT ORDINANCE (UDO) AMENDMENT OUTLINE

UDO / Zoning-2015-01

UDO Text Amendment(s) clarifying the allowable sign area for projects in identified Activity Nodes and regulations governing the use of electronic signs

## A. AMENDMENT TYPE

### Map Amendments

- Land Use Element Map:  
From:  
To:
- Zoning Map:  
From:  
To:
- Other:

### Text Amendments

- Comprehensive Plan Text:  
Section(s):
- UDO Text:
  - UDO General Text Changes
  - UDO Development Standards
  - UDO Development Approval Processes
 Section(s):     1. Section 6.12 *Signs* and  
                      2. Article 10 *Definitions*.
- Other:

## B. RATIONALE

### 1. Purpose/Mission

In accordance with the provisions of Section 2.8 *Zoning Atlas and Unified Development Ordinance Amendments* of the UDO, the Planning Director has initiated text amendment(s) to modify existing regulations governing allowable signage.

There has been an increase in inquires and interest with respect to development of

large-scale commercial operations within the County, with an emphasis on property located within the:

- a. Commercial Transition,
- b. Commercial-Industrial Transition, and
- c. Economic Development Transition

Activity Nodes (please see attached map of the Future Land Use Map of the Comprehensive Plan for additional detail).

Current sign regulations limit the total allowable square footage for freestanding and wall signs for most non-residential general use zoning districts to 32 square feet (8 feet by 4 feet in size) regardless of the property's location (in or outside of an Activity Node), size of parcel, or amount of road frontage.

There is a concern that current regulations do not offer a suitable distinction between development within various identified Activity Nodes (i.e. more urban areas of the County) and rural areas allowing for a sign of suitable size to accommodate a non-residential project on a larger parcel of property.

The 'one-size fits all' sign limit may, in fact, be a deterrent to non-residential development in the aforementioned Activity Nodes.

There is also a noticeable lack of clarity within the UDO addressing the development of large-scale properties with multiple tenants necessitating the need for a larger, freestanding sign, advertising local businesses and on what constitutes a blinking/flashing sign leading to enforcement concerns.

The proposed amendment(s) seek to address these concerns.

## **2. Analysis**

As required under Section 2.8.5 of the UDO, the Planning Director is required to: *'cause an analysis to be made of the application and, based upon that analysis, prepare a recommendation for consideration by the Planning Board and the Board of County Commissioners'*.

The amendments are necessary to address current concerns over advertising needs for development within the urban-designated areas of the county (i.e. the Commercial Transition and Commercial-Industrial Transition Activity Nodes) and clarify the prohibition on the use of blinking/flashing signage by incorporating new definitions into the UDO.

Staff will also be using this amendment process to incorporate an interpretation relating to the use of digital displays by gas stations. Historically gas stations have displayed gas prices through an internally/externally illuminated reader board. These displays create unnecessary glare for motorists. Orange County has allowed gas stations to incorporate digital reader board displays to advertise gas prices, reducing glare and eliminating issues of light trespass either through cracked message boards allowing undiffused light to escape or misaligned external light fixtures creating glare for motorists.

## **3. Comprehensive Plan Linkage (i.e. Principles, Goals and Objectives)**

Land Use Goal 4: Land development regulations, guidelines, techniques, and/or

incentives that promote the integrated achievement of all Comprehensive Plan goals.

#### 4. **New Statutes and Rules**

N/A

### d. **PROCESS**

#### 1. **TIMEFRAME/MILESTONES/DEADLINES**

##### a. BOCC Authorization to Proceed

January 22, 2015 – The BOCC authorized staff to proceed with the amendment.

##### b. Quarterly Public Hearing

May 26, 2015

STAFF COMMENT: This item was originally intended for presentation at the February 19, 2015 Quarterly Public Hearing, which was cancelled due to weather.

##### c. BOCC Updates/Checkpoints

January 22, 2015 – Approval of Amendment Outline form authorizing staff to proceed with project.

April 1, 2015 Ordinance Review Committee (ORC) meeting (BOCC received materials).

May 26, 2015 – Quarterly Public Hearing.

September 1, 2015 - Receive Planning Board recommendation.

##### d. Other

N/A

#### 2. **PUBLIC INVOLVEMENT PROGRAM**

**Mission/Scope:** Public Hearing process consistent with NC State Statutes and Orange County ordinance requirements

##### a. Planning Board Review:

January 26, 2015 – Planning Board members were e-mailed the amendment packet for initial review and comment.

April 1, 2015 - ORC

June 3, 2015 – Recommendation.

##### b. Advisory Boards:

N/A  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

c. Local Government Review:  
N/A

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\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

d. Notice Requirements

Legal advertisement published in accordance with the provisions of the UDO.

e. Outreach:

General Public: \_\_\_\_\_

Small Area Plan Workgroup: \_\_\_\_\_

Other: \_\_\_\_\_

**3. FISCAL IMPACT**

Modification of existing language will not require the outlay of additional funds by the County. Processing of the amendment shall be handled by staff utilizing existing budgeted funds.

**e. AMENDMENT IMPLICATIONS**

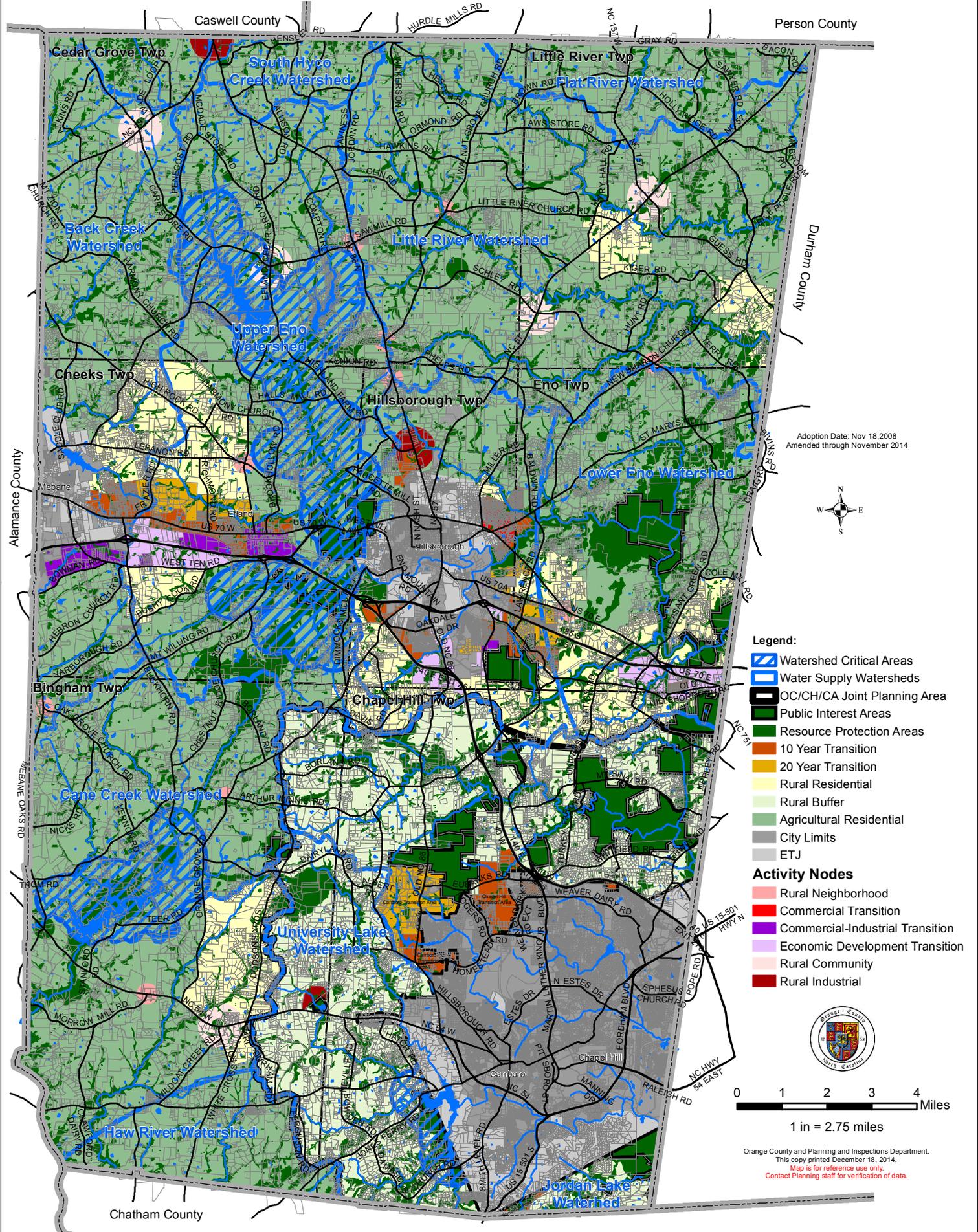
The amendment will allow for larger freestanding and wall signs for projects in identified Activity Nodes where there is adequate road frontage necessitating the development of additional advertising space and clarify what constitutes a blinking/flashing sign to aid in enforcement efforts.

**f. SPECIFIC AMENDMENT LANGUAGE**

Please refer to Attachment 2.

**Primary Staff Contact:**  
Michael D. Harvey  
Planning  
(919) 245-2597  
mharvey@orangecountync.gov

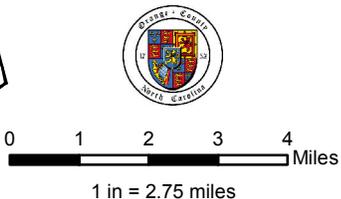
# Future Land Use Map of the Orange County Comprehensive Plan



Adoption Date: Nov 18, 2008  
Amended through November 2014



- Legend:**
- Watershed Critical Areas
  - Water Supply Watersheds
  - OC/CH/CA Joint Planning Area
  - Public Interest Areas
  - Resource Protection Areas
  - 10 Year Transition
  - 20 Year Transition
  - Rural Residential
  - Rural Buffer
  - Agricultural Residential
  - City Limits
  - ETJ
- Activity Nodes**
- Rural Neighborhood
  - Commercial Transition
  - Commercial-Industrial Transition
  - Economic Development Transition
  - Rural Community
  - Rural Industrial



Orange County and Planning and Inspections Department.  
This copy printed December 18, 2014.  
Map is for reference use only.  
Contact Planning staff for verification of data.

- (H) The design of light fixtures and structural supports must be compatible with the architecture of the principal building(s) and identification signs.
- (I) Where building faces are illuminated, lighting fixtures must be integrated within the architectural design of the buildings.
- (J) Ground-mounted lighting fixtures must be weather-proof and vandal resistant.
- (K) **Hillsborough EDD**  
In addition to the standards established above, the following standards shall apply within the Hillsborough EDD:
- (1) Lighting must be high efficiency lighting systems and lighting levels must be reduced during non-use hours to promote energy conservation.
  - (2) 12:1 minimum/maximum glare ratio.
  - (3) Maximum footcandles = 80

## SECTION 6.12: SIGNS

### 6.12.1 Purpose and Intent

The purpose of this Section is to regulate the type, placement and physical dimensions of all signs in the interest of public health, safety and welfare, while recognizing the need for signs within the business community.

It is the intent of this section to regulate signs on a per lot basis in conjunction with the zoning designation of the lot as described on the current tax roll whether a sign is directly visible from a street right-of-way or not.

### 6.12.2 **Off-Premise Commercial/Outdoor Advertising Signs**<sup>1</sup>

The provisions of this Article establish standards and review criteria relating to the location, erection, maintenance, lighting, setbacks, and use of signs. This includes regulations pertaining to off-premise commercial also known as outdoor advertising (i.e. Billboards) signage.

The regulation and permitting of outdoor advertising is also subject to State requirements, including the State Outdoor Advertising Control Act, and Federal requirements. In cases where there is a conflict between County regulations and State or Federal regulations, relating to the location, erection, maintenance, lighting, setbacks and use of outdoor advertising signage, the corresponding State or Federal law shall take precedent.

In cases where there is no applicable State/Federal standard, then existing County regulations shall be enforced.

### 6.12.3 General Requirements

- (A) No sign of any type nor any part thereof shall be erected, painted, posted, reposted, placed, replaced, or hung in any zoning district except in compliance with these regulations.
- (B) No person shall erect or maintain a sign, and no property owner shall allow a sign to be erected or maintained on his property except in conformity with these regulations.
- (C) A Zoning Compliance Permit approved in accordance with the provisions of this Ordinance shall be required prior to erecting a sign, unless otherwise permitted.

<sup>1</sup> Staff is adding language to ensure terminology is consistent within the UDO when referencing billboards, which we currently define as 'Off-premise Commercial' signs. We are also adding a definition of Outdoor Advertising, referencing our local classification, in Article 10.

- (A) Signs erected by a governmental agency to regulate, control, or direct vehicular or pedestrian traffic;
- (B) Legal notices, warnings, regulatory or informational signs erected by a public agency;
- (C) Signs required by law;
- (D) "No trespassing" signs, not exceeding six square feet in area;
- (E) Real estate signs, not exceeding four square feet in area;
- (F) Flags, emblems or insignia of any national, state or political subdivision;
- (G) Property number signs not exceeding two square foot in area and bearing only address numbers of premises or other identification of premises not having commercial connotations;
- (H) Holiday decorations in season that do not contain or display a commercial message;
- (I) Signs on trash receptacles, indicating the owner or party responsible for maintenance;
- (J) Hazardous chemical identification/notification signs on residential and non-residential structures;
- (K) Signs on newspaper boxes;
- (L) Private drive signs, one per drive entrance, not exceeding two square feet in area, with the message content limited to the words "Private Drive" and the address of any residences utilizing the private roadway;
- (M) Security and warning signs posted on private property warning the public against trespassing, or similar messages, provided that any such sign does not exceed two square feet in area; and
- (N) Political Signs, in accordance with the following standards:
  - (1) Political Signs are allowed in all zoning districts.
  - (2) A Zoning Compliance Permit shall not be required to allow for the placement of a political sign on private property.
  - (3) There shall be no limit to the number of political signs that can be placed on private property so long as the placement of these signs complies with the provisions of this Ordinance and the signs do not create a public safety hazard.
  - (4) Within residential zoning districts, political signs shall not exceed nine square feet in area or four feet in height.
  - (5) Within non-residential zoning districts, political signs shall not exceed the maximum allowable sign area permitted for freestanding signs.
  - (6) Political signs shall only be erected 90 days prior to the established date of a general election, school board election, referendum, special election, primary, or other similar political activity.
  - (7) Political signs shall be removed within 21 days after an election.
  - (8) Political signs shall be allowed within rights-of-way of the State highway system only in accordance with State law.
  - (9) Political signs shall not be allowed on telephone poles, utility poles, trees, other similar natural objects, and other signs or sign structures.

### 6.12.6 Prohibited Signs

The following signs are prohibited in all zoning districts:

- (A) Advertising signs resembling traffic signals, traffic signs, emergency vehicles' flashing lights, non-governmental sanctioned signs utilizing the words 'stop', 'slow', 'caution',

'danger', or any sign that is likely to be misconstrued by the traveling public as being official governmental signs or emergency warnings or which by their distracting nature create a hazard to motorists;

- (B) Signs, except for off-premises signs allowed under this Section, advertising an activity, business, product or service no longer conducted on the premises upon which the sign is located. Such signage shall be removed within 90 days from the date of termination of such activity. Upon failure of the owner to remove such signs within the prescribed time, the Planning Director shall take appropriate legal action to have such sign removed;
- (C) Flashing, blinking, pulsating, signs or signs with moving parts ~~except for signs showing time of day and temperature that are part of an approved sign advertising a permitted business activity on a parcel of property;~~<sup>2</sup>
- (D) Signs with electronic moveable copy, scrolling messages, or other similar electronic displays designed to change/display different advertising message(s) more than once an hour or a maximum of 6 times in a 24 hour period.<sup>3</sup> The use of electronic displays in off-premise commercial signs is specifically prohibited except in accordance with the provisions of this section.<sup>4</sup>
- (E) Signs, other than traffic, governmental, street name signs, political signs erected in accordance with State law, or other official governmental or public agency sign, shall not be permitted within any street right-of-way;
- (F) Roof signs;
- (G) Snipe signs;
- (H) Beacon lights, animated signs, trailer signs and snipe signs;
- (I) Portable signs, unless approved for a special event in accordance with Section 6.12.11(D);
- (J) Signs supported in whole or in part by water, gas, air, or could otherwise be designated as inflatable signs; Individuals erecting an inflatable sign shall be subject to an immediate notice of violation and shall be required to remove the sign within the time frame it would normally take to deflate the sign, unless approved for a special event in accordance with Section 6.12.11(D);
- (K) Signs mounted on a single pole or mast;
- (L) Signs that contain rotating sign panels or objects;
- (M) Signs that obstruct ingress and egress to any door, window, fire escape, stairway, ladder, or other opening intended to provide light, air, ingress, or egress for any room or building; and
- (N) Signs that violate any provision of any law of the State of North Carolina relative to outdoor advertising.
- (O) Signs erected on telecommunication facilities or support structures other than safety notification(s) and those required by State or Federal regulations.<sup>5</sup>

<sup>2</sup> On advice from the County Attorney's office we are deleting this language to address a concern existing language is not content neutral. You cannot specific the content of a sign even if it is just 'time/temprature'.

<sup>3</sup> We need a standard as to what constitutes changeable copy to ensure proper enforcement while allowing some opportunity for said advertising display to be altered during the course of a day.

<sup>4</sup> Section 6.12.2 establishes the County's limitations with respect to the regulation of off-premise/outdoor advertising (i.e. billboards). We will continue to ban the use of electronic outdoor advertising so long as said ban is consistent with applicable State and Federal regulations in accordance with NCGS 136-131.2.

<sup>5</sup> From time to time staff has received requests to place advertising signs on telecommunication facilities. To date we have forbidden such placement. Staff believes it is necessary to amend the UDO to include a specific prohibition to avoid uncertainty.

(a) Sites shall be limited to one portable sign per right-of-way frontage. However, there shall be no more than two portable signs permitted on-site at one time.

(b) Signs shall be limited to 16 square feet in area, per sign face.

(c) Signs shall be located in accordance with Section 6.12.3(F).

(5) **Inflatable Signs**

(a) No more than one inflatable sign shall be permitted on-site at one time.

(b) Inflatable signs shall not exceed 25 feet in height.

(c) Signs shall be located a minimum of 25 feet from all property lines.

(6) Special Event Displays may only be erected for a two week period and must be removed within five days following the event.

**(E) Signs Advertising Agricultural Products Produced on the Premises**

(1) Shall not exceed 32 square feet.

(2) Shall be limited to two signs per parcel.

**(F) Temporary Construction and Financial Institution Signs**

(1) Shall not exceed 24 square feet in area, per sign;

(2) May not to exceed two signs per building site;

(3) Signs shall be erected only after a Building Permit authorizing construction on-site has been issued; and

(4) Signs must be removed within seven days after construction work has been completed and the certificate of occupancy has been issued.

**(G) Directional/Informational Signs**

(1) May be displayed on parcels of property utilized for non-residential purposes.

(2) May not exceed two square feet in area.

(3) May contain corporate logos or other similar graphical displays so long as they provide some necessary information to patrons (i.e. entrance and exit locations, one-way entrance ways, drive through entranceways, ATM location, etc.).

(4) A maximum of three directional/informational signs may be displayed on a non-residential parcel of property.

**(H) Temporary Real Estate Signs, in excess of four square feet in area**

(1) One sign shall be permitted per building site, not to exceed 24 square feet in area.

(2) Signs shall not be placed within any public street right-of-way.

(3) Signs must be removed after property has been transferred.

**(I) Landmark Signs**

Signs shall be erected only after the historical significance of the particular site has been verified and that proposed location of the sign has been approved by the Orange County Planning Department and all other related agencies (i.e. NC Department of Transportation).

**6.12.12 Signs Permitted in Specific Zoning Districts**

The following signs shall be permitted in the zoning districts indicated, in accordance with all other provisions of this Section and specific standards for each sign established herein:

**(A) On-Premise Commercial Signs**

- (1) These signs shall comply with all state and county building codes and the National Electric Code. Clearance of signs is required from high voltage power lines and signs shall be located in such a way that they will maintain horizontal and vertical clearance of all overhead electrical conductors in accordance with the National Electric Code specifications, provided that no sign shall be installed closer than ten feet horizontally or vertically from any conductor or public utility guy wire.
- (2) On-premise commercial signs shall be permitted within the following zoning districts: LC-1, NC-2, CC-3, GC-4, EC-5, OI, EI, I-1, I-2, I-3, AS, MPD-CZ, MHP-CZ and all of the Economic Development zoning districts.
- (3) ~~All~~ On-premise commercial signs shall be setback a minimum ten feet from ~~the front, side, and rear~~ all property lines ~~or and~~ the edge of any existing or projected street right-of-way line ~~whichever is greater~~. Signs greater than 32 square feet, as allowed herein, shall be setback an additional 5 feet.<sup>6</sup> In cases where a property abuts a residential zoned parcel of property, the side or rear yard setback requirement shall be doubled.
- (4) **Number of Signs Permitted**
  - (a) One on-premise commercial sign shall be permitted per parcel. However, one additional on-premise commercial sign may be permitted for parcels with frontage on more than one right-of-way in accordance with the provisions of this Section.
  - (b) Under no circumstances shall more than one three-dimensional sign be permitted on-site.
  - (c) For multi-tenant buildings and/or sites permitted as a conditional use or conditional zoning district, additional on-premise commercial signs or sign area may be permitted by the Board of County Commissioners with the approval of a master sign plan.
- (5) **Height of Signs**
  - (a) Pole signs shall be limited to a height of 24 feet with a mandatory ground clearance of eight feet from the normal or finished grade elevation of the property at the base of the sign. Pole signs shall be mounted on 2 posts or masts.<sup>7</sup>
  - (b) Ground signs shall not exceed six feet in height from the normal or finished grade elevation of the property at the base of the sign
- (6) **The allowable area for on-premise commercial signs shall be determined as follows:**
  - (a) Single or double-faced signs shall not exceed 32 square feet in area, per sign face except for parcels zoned CC-3, GC-4, O/I, I-2, I-3, AS, and MPD-CZ that:
    - (i) Are larger than 40,000 square feet in area, and
    - (ii) Has more than 300 feet of linear frontage along a NC Department of Transportation (NC DOT) maintained roadway

<sup>6</sup> Staff is recommending the imposition of a larger setback in those instances where a larger free-standing sign is allowed.

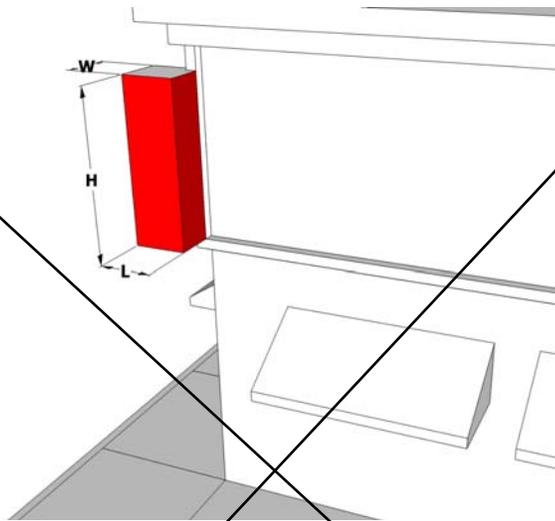
<sup>7</sup> This requirement is currently referenced within the definition section of the UDO. We are moving it here as regulation(s) are more appropriate within the various, applicable, sections rather than being contained within definitions.

In these instances signs shall not exceed 64 square feet in area per sign face.<sup>8</sup>

(b) For parcels within Economic Development district(s), allowable sign area shall be in accordance with Section 6.12.14 of this Ordinance.<sup>9</sup>

~~(b)(c)~~ Three-dimensional signs shall not exceed a maximum volume of 54 cubic feet with no dimension exceeding six feet.

**Figure 6.12.12.A.6: Three-Dimensional Sign Allowable Volume**



NOTE:  $L \times W \times H$  may not exceed 54 cubic feet with no dimension exceeding 6 feet.

- (7) An on-premise commercial sign may contain a changeable copy sign as defined in this Ordinance. However, the total sign area, including the area of changeable copy, shall not exceed the maximum allowable area established in Section 6.12.12(A)(6)(a) above.
- (8) No on-premise commercial sign shall be oriented in such a manner as to be directly visible from a major transportation corridor as established in this Ordinance.

**(B) Off-Premise Commercial Signs**

- (1) These signs shall comply with all state and county building codes and the National Electric Code. Clearance of signs is required from high voltage power lines and signs shall be located in such a way that they will maintain horizontal and vertical clearance of all overhead electrical conductors in accordance with the National Electric Code specifications, provided that no sign shall be installed closer than ten feet horizontally or vertically from any conductor or public utility guy wire.

<sup>8</sup> This would only allow larger signs on property located in the 'urban' areas of the County (i.e., along US Highway 70, the Efland-Mebane-Buckhorn area, Hillsborough and Eno EDD's) and would not include rural nodes (i.e. Rural Neighborhood, Industrial, etc.). The typical width of a non-residential general use zoning district (i.e. amount of road frontage) is approximately 75 feet. A larger sign shall only be allowed if the project is located within an identified Activity Node, where we encourage large-scale non-residential development, and the lot has sufficient road frontage to accommodate a larger sign yet be proportional to the property.

<sup>9</sup> We are establishing the necessary reference(s) to the provisions of the UDO regulating allowable sign area within our various Economic Development districts.

- (2) Off-premise commercial signs (billboards) shall be permitted within the GC-4, EC-5, I-1, and I-2 zoning districts.
- (3) No electric tap outs allowing for an independent light source to receive power shall be allowed.
- (4) Off-premise commercial signs shall be considered the principal use of property. There shall be no additional principal uses allowed on the same parcel. Off-premise commercial signs shall not be permitted as accessory uses.
- (5) No off-premise commercial sign shall be located closer than 200 feet to the right-of-way of major thoroughfares (i.e. US 70, NC 86, NC 40, and NC 57) and 600 feet to the right-of-way for all other thoroughfares and streets.
- (6) The height of an off-premise commercial sign shall not exceed 25 feet from the grade of the right-of-way or surface grade beneath the sign, whichever is less. The clearance of an off-premise sign shall not be less than eight feet from the grade of the right-of-way or surface grade beneath the sign, whichever is less.
- (7) Off-premise commercial signs shall be limited to 480 square feet of sign area.
- (8) In no case shall an off-premise commercial sign be located closer than 1,000 feet to an existing off-premise commercial sign.
- (9) Off-premise commercial signs are prohibited within the Major Transportation Corridor (MTC) overlay district.
- (10) No person may, for the purpose of increasing or enhancing the visibility of any off-premises commercial sign, damage, trim, destroy, or remove any trees, shrubs, or other vegetation in the following locations:
  - (a) Within the right-of-way of any public street or road, unless the work is done pursuant to the express written authorization of the North Carolina Department of Transportation;
  - (b) On property that is not under the ownership or control of the person responsible for such work, unless the work is done pursuant to the express authorization of the property owner where the vegetation is located; and,
  - (c) In any area where such vegetation is required to remain under a permit issued in accordance with this Ordinance.

**(C) Wall Signs**

- (1) Shall either be mounted or painted on a building.
- (2) Wall signs may be internally illuminated and shall comply with all applicable state and county building codes and the National Electric Code.
- (3) Wall Signs shall be permitted within the following zoning districts: LC-1, NC-2, CC-3, GC-4, EC-5, OI, EI, I-1, I-2, I-3, AS, MPD-CZ and all of the Economic Development zoning districts.
- (4) All wall signs shall be offset a minimum of ten feet from the corner of the building on which it is mounted.
- (5) Wall signs shall not protrude more than 12 inches from the face of building on which it is mounted.
- (6) Number of Signs Permitted
  - (a) Only one wall sign shall be permitted per building facade. In cases where a building is located on a corner lot, an additional wall sign may be permitted on the building wall facing the second street right-of-way, subject to the requirements of this Ordinance.

(b) For multi-tenant buildings permitted as a conditional use or conditional zoning district additional wall signs may be permitted by the Board of County Commissioners.

(7) The allowable sign area shall be determined as follows:

One square foot of sign area for every ½ foot of building length facing a public right-of-way, not to exceed 32 square feet except for parcels zoned CC-3, GC-4, O/I, I-2, I-3, AS, and MPD-CZ that:

(i) Are larger than 40,000 square feet in area, and

(ii) The structure has more than 100 linear feet of building length facing a public right-of-way, and

(iii) Has more than 300 feet of linear frontage along a NC Department of Transportation (NC DOT) maintained roadway

In these instances signs shall not exceed 64 square feet in area per sign face.

(8) A changeable copy sign may be utilized as a wall sign.

(9) Wall signs shall not extend above the soffit, parapet, or eave line of the building to which it is attached.

(10) For parcels within Economic Development district(s), allowable sign area shall be in accordance with Section 6.12.14 of this Ordinance.

**(D) Projecting Signs**

(1) Projecting signs shall be mounted on a building.

(2) Projecting signs may be internally illuminated and shall comply with all applicable state and county building codes and the National Electric Code.

(3) Projecting signs shall be permitted within the following zoning districts: LC-1, NC-2, CC-3, GC-4, EC-5, OI, EI, I-1, I-2, I-3, AS, MPD-CZ and all of the Economic Development zoning districts.

(4) Projecting signs shall adhere to the minimum setback requirements established for all structures within the zoning district in which it is located.

(5) Only one projecting signs shall be permitted per building facade even in cases of a building located on a corner lot.

(6) The allowable sign area shall be determined as follows:

(a) One square foot of sign area for every ½ foot of building length, facing a public right-of-way, not to exceed 32 square feet in area.

(7) Projecting signs shall clear sidewalks and pedestrian paths by a height of at least ten feet above finished grade.

(8) Projecting signs shall not extend above the soffit, parapet, or eave line of the building to which it is attached.

(9) Projecting signs shall not be located at the corner of a building except at right angles to the building façade.

**(E) Window Signs**

(1) Window signs shall be permitted within the following zoning districts: LC-1, NC-2, CC-3, GC-4, EC-5, OI, EI, I-1, I-2, I-3, AS, MPD-CZ and all of the Economic Development zoning districts.

(2) Window signs shall be limited to a maximum of 30% of the total window area where the sign is to be located.

- (3) Window signs may be utilized for advertising specials or sales within the business, or displaying the name and other pertinent business information associated with the principal use.
- (4) Signs may be etched, painted or otherwise attached to be made a permanent addition to the pane of glass.

**(F) Awning Signs**

- (1) Awning signs shall be permitted within the following zoning districts: LC-1, NC-2, CC-3, GC-4, EC-5, OI, EI, I-1, I-2, I-3, AS, MPD-CZ and all of the Economic Development zoning districts. See Section 6.12.14(E) for additional standards for Awning Signs located in Economic Development Districts.
- (2) Awning Signs shall be located above the main entrance to a nonresidential land use and shall contain the name of the use.
- (3) Awning Sign area shall be limited to a maximum of 50% of the total awning area erected over the entrance of a nonresidential land use. Where an awning sign is utilized at a multi-use development, the amount of sign area shall be computed as part of the overall sign area allotted to wall signs, not to exceed 50% of the total awning area.

**(G) Drive-Through Menu Signs**

- (1) Applicants must establish to the satisfaction of the Planning Director that a drive-through menu sign is considered a customary accessory use to the principal business on the property and is necessary for the normal operations of the commercial operation.
- (2) Signs shall be limited to 32 square feet in area.
- (3) No external illumination shall be permitted.
- (4) A land use that utilizes such a sign shall also be permitted an independent speaker box, no greater than 12 square feet in area with a height no greater than four feet.

**6.12.13 Sign Standards for Specific Uses**

In addition to the requirements contained herein, the following land uses shall adhere to these additional standards:

**(A) Changeable Copy Signs Utilized by Churches or Public Entities**

- (1) Shall not exceed 32 square feet in area.
- (2) Bulletin boards/reader boards may be internally illuminated.

**(B) Service Stations/Gas Station**

- (1) Signs may be erected above gas pumps subject to the following standards:
  - (a) No internal or external illumination shall be permitted;
  - (b) Signs shall be limited to four square feet in area; and
  - (c) Signs must advertise items for sale on the property. Under no circumstances may a sign advertise a sale, activity, business, or product not associated with the principal use of property.
- (2) Signs may be erected on the canopy covering gas pumps subject to the following standards:
  - (a) Advertising material shall be limited to trademarks, logos, and the name of the service station or other similar display.
  - (b) Such displays shall be limited to six square feet of area.

(3) The advertisement of gas prices may be displayed electronically as part of an approved on-premise sign.

**(C) Yard Sales/Garage**

- (1) Signs shall be erected on the property where the sale is taking place.
- (2) Signs shall be limited to four square feet of area.
- (3) No off-site displays shall be permitted.
- (4) Signs shall be removed no later than sunset of the day the event occurs.

**(D) Institutional Uses and Private Parks Located within Residential Zoning Districts**

- (1) One ground and one wall sign shall be permitted;
- (2) Maximum sign area shall be 32 square feet per sign face, and
- (3) No ground sign shall exceed six feet in height.

**(E) Home Occupations**

- (1) The Home Occupation shall have a valid Zoning Compliance Permit issued by Orange County;
- (2) There shall only be one sign limited to eight square feet in area and four feet in height;
- (3) Such sign shall not be illuminated by any means;
- (4) Sign shall not be located within any public street right-of-way, sight visibility triangle, easement, vehicular area or other similar area; and
- (5) The sign message shall be limited to the business name and telephone number.

**(F) Parks, Public and Non-profit; Recreational Facilities, Non-Profit; Recreational Facilities, Golf Courses; and Recreational Facilities, Profit**

**(1) Purpose and Intent**

- (a) Unlike signs for non-residential development(s), signs for recreational land uses are intended to serve a different function and purpose. Signs within these types of land uses are intended to provide essential information concerning:
  - (i) Rules and regulations governing the operation of the facility;
  - (ii) Educational information identifying unique aspects of the facility, the property itself, or significant environmental features that are located on the property; and
  - (iii) Identification of sponsors or public/private partnerships that are responsible for the development, upkeep, and maintenance of existing recreational amenities.
- (b) While some of this information could be construed as being advertising material, the County views such signs as identifying those responsible for the existence of the facility and allows for recognition of entities that have entered into partnerships with the operator of the facility to provide local residents with recreational opportunities.

**(2) Applicability**

- The regulations included herein govern the erection of signs at the following:
- (a) Parks, Public and Non-profit,
  - (b) Recreational Facilities, Non-Profit,
  - (c) Recreational Facilities, Golf Courses, and

- (viii) An informational kiosk may contain the name, logo, or slogan of a sponsor that is responsible for the development/upkeep/maintenance of the recreational amenity subject to the following limitations:
  - a. The name and/or logo of a sponsor shall not take up more than 20% of the total kiosk area.
  - b. No other advertising material shall be permitted on the kiosk.
- (e) Directional Signs
  - (i) Shall be allowed in an effort to provide information to visitors on the location of recreational amenities or offices located on the property.
  - (ii) Directional signs shall be limited to six square feet in area.
  - (iii) Directional signs shall not include any advertising material.
  - (iv) All directional signs shall be ground mounted signs not exceeding seven feet in height.
  - (v) All directional signs shall be located a minimum of five feet from any active recreational activity field or one feet from any established nature or man-made trail, and shall be set back a minimum of ten feet from all property lines,
- (f) Scoreboards
  - (i) One scoreboard, not to exceed 144 square feet, shall be permitted for each athletic field

#### 6.12.14 Additional Standards for Economic Development Districts

In addition to the overall sign standards established herein, the following specific standards shall apply in the Economic Development Districts:

##### (A) General Standards

- (1) A sign plan must be submitted and approved as part of the comprehensive site plan or master plan.
- (2) For multiple use sites or buildings, unified directional/informational signs and the use of coordinated individual wall signs is the preferred approach to business identification.
- (3) Sign colors must not be overpowering but must accent the building which the sign identifies or on which it is mounted.
- (4) The light from an illuminated sign must not be permitted to shine into any road right-of-way or across property lines.
- (5) In addition to the prohibited signs in Section 6.12.6, the following types of signs are prohibited in the Economic Development Districts: off premises advertising signs, billboards, inflatable, and portable signs.

##### (B) Identification Signs

- (1) **Freestanding Identification On-premise Commercial Signs**<sup>10</sup>

<sup>10</sup> Staff is modifying existing language to ensure we are using consistent language throughout the UDO when identifying a sign.

- (a) Only one ~~freestanding identification~~on-premise commercial sign is permitted for each development. However, a second sign may be permitted where a site has more than one vehicular entrance on different sides of the building.
- (b) A ~~freestanding identification~~on-premise commercial sign must be placed perpendicular to approaching vehicular traffic so that it is clearly visible and does not obstruct the view of any other identification or information sign.
- (c) A ~~freestanding identification~~on-premise commercial sign must be located at least 10-feet from any property line or driveway.

**(2) Buckhorn EDD & Eno EDD Only**

The following criteria shall govern the number, size, and height of identification signs in the Buckhorn and Eno EDDs:

TABLE 6.12.14.B.3: BUCKHORN AND ENO EDD IDENTIFICATION SIGN STANDARDS	
Maximum Number of Signs	3 per use
Maximum Number of <del>Freestanding-On-premise Commercial</del> Signs	1 per use
Maximum Total Square Footage of All Signs	200 sq. ft.
Maximum Size of Any Sign	75 sq. ft.
Maximum Height of Any Sign	12 ft. <sup>11</sup>

**(C) Directional/Informational Signs**

In lieu of the requirements contained in Section 6.12.11(G), the following requirements shall apply to Directional/Informational signs located in Economic Development Districts:

- (1) Information signs must be placed perpendicular to approaching traffic so that they are visible and legible.
- (2) Signs must be located outside of the site visibility triangle.
- (3) Information signs must be positioned to avoid confusing backgrounds, particularly when they are intended to direct vehicular traffic on or to-and-from the site.
- (4) Information signs may be placed no closer than six feet to the edge of a road or drive, and, in no case, may they be located within a street right-of-way unless they are erected by a governmental agency.
- (5) Information signs may not exceed four feet in height.
- (6) Information signs may not contain advertising material or exceed six square feet in area.

**(D) Temporary Signs**

- (1) Temporary signs may be used for construction and real estate information, and future tenant identification, in accordance with the provisions of this Section.

**(E) Awnings**

- (1) The form and color of the awnings must be consistent.
- (2) A minimum eight-foot vertical clearance must be maintained.

<sup>11</sup> We are keeping the height of signs erected within our Economic Development Districts the same. From our standpoint there was a conscious decision by the County to have different allowable signs heights for projects in and outside of Economic Development districts and we are going to preserve this distinction.

### **Open Burning Of Trees, Limbs, Stumps And Construction Debris Associated With The Permitted Activity**

The disposal of limbs, stumps and construction debris associated with the permitted activity by means of outdoor fires.

### **Open Space - (flexible development)**

"Primary Conservation Areas" and "Secondary Conservation Areas", as defined in Section 7.13, which are preserved through conservation easements or other restrictions in a flexible development subdivision.

### **Open Space - (land use intensity)**

- A. Open space is the total horizontal area of uncovered open space plus half the total horizontal area of covered open space subject to limitations set forth below.
- B. Uncovered open space is total gross land area not covered by buildings, plus open exterior balconies and roof areas improved as recreation space.
- C. Covered open space is usable open space closed to the sky, but having two clear unobstructed open or partially open sides. Partially open sides is to be construed as 50% or more. Examples of covered space are covered balconies, covered portions of improved roof areas, or space under buildings supported on columns or posts or cantilevered. The square footage countable as covered open space shall not exceed the square footage of the open space sides.

### **Open Space Ratio**

The minimum square footage of open space required for each square foot of gross land area. This area includes parking and vehicular access areas and it can also include balconies, and roofs improved for recreation.

### **Outdoor Advertising**

[See Sign, Off-premise Commercial](#)

### **Outdoor Advertising Industry**

The organizations that provide outdoor displays or display space on a lease or rental basis.

### **Outdoor Lighting**

Installation of lighting equipment, whether attached to poles, building structures, the earth, or any other location to allow for the illumination of a building and exterior area(s) within the confines of a defined property line. Included are open air spaces on a property, which are under a roof or other cover and not fully enclosed such as a canopy, pavilion, drive-through bay, or parking deck.

### **Outdoor Lighting, Cutoff Fixture**

A fixture shielded or constructed in such a manner that no more than 2 ½% of the total light emitted by the fixture is projected above the horizontal plane of the fixture.

### **Outdoor Lighting, Direct Light**

Light emitted directly from the lamp, off of the reflector diffuser, or through the refractor or diffuser lens, of a luminaire.

### **Outdoor Lighting, Fixture**

The assembly that houses the lamp or lamps and can include all or some of the following parts: a housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror, and/or a refractor or lens.

### **Outdoor Lighting, Flood Lamp**

A form of lighting designed to direct its output in a specific direction with a reflector formed from the glass envelope of the lamp itself. Such lamps are so designated by the manufacturers and are typically used in residential outdoor area lighting.

A sign structure advertising an establishment, merchandise, service, or entertainment that is not sold, produced, manufactured, or furnished at the property on which said sign is located. This definition includes billboards and other similar outdoor advertising mechanisms.

- Example of an off-premise commercial sign includes:



### Sign, Off-Premise Religious

A sign located off the property of a religious facility intended to provide directional information as to the location of a specific religious facility. Such signs shall only be erected at major roadway intersections and contain the name and address of the facility as well as a directional arrow to provide motorists an idea of which road is necessary to access the facility.

### Sign, On-Premise Commercial

A sign that pertains to the use of the premises where it is located and can include pole mounted and/or ground; monument signs. On-Premise Commercial Signs can contain changeable copy or a reader board so long as the total square footage allowed for the sign is not exceeded.

~~For the purpose of this ordinance, pole mounted signs shall not be permitted. Pole mounted signs shall be considered signs mounted on a single pole or mast rather than on two posts or poles or ground mounted.~~<sup>12</sup>

- Examples of on-premise commercial signs include:



### Sign Owner

A person recorded as such on official records. ~~The owner of property on which a sign is located is presumed to be the owner of the sign unless facts to the contrary are officially recorded or otherwise brought to the attention of the Planning Director (e.g., a sign leased from a sign company).~~

### Sign, Pole

A sign that is elevated above the ground by ~~one or more~~ upright supports placed upon the ground and not attached to any part of a building.

### Sign, Political

~~For the purposes of this Ordinance, a sign used in connection with a local, state, or national election or referendum.~~

### Sign, Portable

<sup>12</sup> Standard moved to Section 6.12.12 (5) (a)

**ORANGE COUNTY  
PLANNING BOARD ORDINANCE REVIEW COMMITTEE  
ACTION AGENDA ITEM ABSTRACT**

**Meeting Date:** April 1, 2015

**Action Agenda  
Item No.   2**

**SUBJECT:** Unified Development Ordinance (UDO) Text Amendment – Impervious Surface Regulations

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**DEPARTMENT:** Planning and Inspections

**PUBLIC HEARING:** (Y/N)

No

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**ATTACHMENT(S):**

**INFORMATION CONTACT:**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Comprehensive Plan and Unified Development Ordinance Outline Form (UDO &amp; Zoning 2015-12)</li> <li>2. Draft UDO Text Amendment</li> <li>3. Information Item Provided to BOCC on March 3, 2015</li> </ol> | <p>Michael D. Harvey, Planner III (919) 245-2597<br/>Craig Benedict, Director (919) 245-2575</p> |
|---|--|

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**PURPOSE:** To review and comment upon Planning Director initiated Unified Development Ordinance (UDO) text amendments modifying existing impervious surface regulations.

**BACKGROUND:** Please see Section B of Attachment 1 for relevant information.

The “Amendment Outline Form” (Attachment 1) for these amendments was approved by the BOCC at its March 17, 2015 regular meeting. Staff is asking the ORC members to review the proposed amendment package in advance of the presentation of the amendment at the May 26, 2015 Quarterly Public Hearing.

**FINANCIAL IMPACT:** Please refer to Section C.3 of Attachment 1.

**RECOMMENDATION(S):** The Planning Director recommends the Board review and comment on the proposed amendment package.

# COMPREHENSIVE PLAN / FUTURE LAND USE MAP AND UNIFIED DEVELOPMENT ORDINANCE (UDO) AMENDMENT OUTLINE

UDO / Zoning-2015-02

UDO Text Amendment(s) allowing for the modification of impervious surface area within Watershed Protection Overlay Districts through the installation of permeable pavement

## A. AMENDMENT TYPE

### Map Amendments

- Land Use Element Map:  
From:  
To:
- Zoning Map:  
From:  
To
- Other:

### Text Amendments

- Comprehensive Plan Text:  
Section(s):
- UDO Text:
  - UDO General Text Changes
  - UDO Development Standards
  - UDO Development Approval Processes
 Section(s): 1. 4.2.8 *Modifications of the Impervious Surface Ratio* of the Orange County Unified Development Ordinance (UDO).
- Other:

## B. RATIONALE

### 1. Purpose/Mission

In accordance with the provisions of Section 2.8 *Zoning Atlas and Unified Development Ordinance Amendments* of the UDO, the Planning Director has initiated text amendment(s) to modify existing regulations governing processes

allowing for the modification of allowable impervious surface area.

There has been an increase in inquires and interest from local residents and property owners with respect to increasing allowable impervious surface area on parcels of property including:

- Increasing allowable impervious surface percentages in Watershed Protection Overlay Districts in accordance with State standards,
- Allow additional impervious surface area on property based on the installation of a stormwater feature, and
- Exempt gravel from being considered an 'impervious surface area'.

Staff generated an information item on this topic, which was provided to the BOCC at its March 3, 2015 regular meeting (please refer to [Attachment 3](#)).

As detailed within this information item, in certain circumstances the State allows the installation of a stormwater feature, commonly referred to as a Best Management Practice (BMP), providing an opportunity for the installation of additional impervious surface area.

At this time the State only recognizes the use/installation of permeable pavement as a means of receiving additional impervious surface area on a parcel. The State is in the process of revising their policies, which could result in the expansion of the types of features allowing for an additional allotment of impervious surface area.

The proposed amendment(s) seeks to incorporate the use of permeable pavement or other approved, State BMP's as may be approved, as a means of modifying allowable impervious surface area within the County. The review of these requests will have to be done on a case-by-case basis with the property owner assuming the responsibility for completing the necessary engineering studies justifying the modification as well as the responsibility for the maintenance, inspection, and upkeep of said BMP.

## **2. Analysis**

As required under Section 2.8.5 of the UDO, the Planning Director is required to: *'cause an analysis to be made of the application and, based upon that analysis, prepare a recommendation for consideration by the Planning Board and the Board of County Commissioners'*.

The amendments are necessary to address current concerns our impervious surface limits are too restrictive and unnecessary limit development of property and to provide a mechanism for modifying said limits consistent with current State policies.

Additional analysis will be part of the public hearing materials.

## **3. Comprehensive Plan Linkage (i.e. Principles, Goals and Objectives)**

Land Use Goal 4: Land development regulations, guidelines, techniques, and/or incentives that promote the integrated achievement of all Comprehensive Plan goals.

## **4. New Statutes and Rules**

N/A

**a. PROCESS**

**1. TIMEFRAME/MILESTONES/DEADLINES**

- a. BOCC Authorization to Proceed

March 17, 2015

- b. Quarterly Public Hearing

May 26, 2015

- c. BOCC Updates/Checkpoints

March 3, 2015 – Presentation of impervious surface information item  
 March 17, 2015 – Approval of UDO Amendment Outline Form.  
 April 1, 2015 – Planning Board Ordinance Review Committee (ORC) (BOCC receives materials).  
 May 26, 2015 – Quarterly Public Hearing.  
 June 16, 2015 - Receive Planning Board recommendation.

- d. Other

**2. PUBLIC INVOLVEMENT PROGRAM**

**Mission/Scope:** Public Hearing process consistent with NC State Statutes and Orange County ordinance requirements

- a. Planning Board Review:

April 1, 2015 – Planning Board Ordinance Review Committee (ORC).  
 June 3, 2015 – Recommendation.

- b. Advisory Boards:

Commission for the Environment –  
 April 13, 2015  
 OWASA Board – April 23, 2015

- c. Local Government Review:

Staff will transmit the proposed amendment to the Towns of Chapel Hill, Carrboro, and Hillsborough for courtesy review in the month of April

2015.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Notice Requirements

Legal advertisement published in accordance with the provisions of the UDO.

e. Outreach:

- General Public: \_\_\_\_\_
- Small Area Plan Workgroup: \_\_\_\_\_
- Other: \_\_\_\_\_

**3. FISCAL IMPACT**

Modification of existing language will not require the outlay of additional funds by the County. Processing of the amendment shall be handled by staff utilizing existing budgeted funds.

**b. AMENDMENT IMPLICATIONS**

The amendment will allow for an additional process, in accordance with State regulations, allowing for the modification of impervious surface limits throughout the County.

**c. SPECIFIC AMENDMENT LANGUAGE**

Please refer to Attachment 2.

**Primary Staff Contact:**  
 Michael D. Harvey  
 Planning  
 (919) 245-2597  
 mharvey@orangecountync.gov

- (e) The amount of encroachment into the stream or reservoir buffer is the minimum amount which can be obtained while meeting the criteria in (a) through (d).

**4.2.3 Land Use Restrictions**

All uses and activities allowed in the underlying zoning district are permitted with the following exceptions:

TABLE 4.2.3 LAND USE RESTRICTIONS	
DISTRICT	RESTRICTIONS
UNIV-CA UNIV-PW CANE-CA U-ENO-CA	No new landfills are permitted. No commercial or industrial uses are permitted except for commercial development, in accordance with the provisions of the Ordinance, located within established Nodes as detailed within the Orange County Comprehensive Plan. No new golf courses are permitted
UNIV-CA CANE-CA U-ENO-CA	No residual (sludge/biosolids) application is permitted.
CANE-PW U-ENO-PW HYCO-PW LITTLE-PW BACK-PW FLAT-PW HAW-PW L-ENO-PW JORDAN-PW	No discharging landfills are permitted. Industrial use is limited to nonhazardous light industrial uses characterized by low water use (less than 10,000 gpd, excluding domestic water (25 gpd per employee) and water used for heating and air conditioning).

**4.2.4 Residential Density**

Maximum residential density shall be as indicated in the Table in this subsection, or as required by the underlying zoning district, whichever is less.

TABLE 4.2.4 RESIDENTIAL DENSITY	
DISTRICT	MAXIMUM DENSITY
UNIV-CA UNIV-PW	1 du/five acres. Lots of record existing on October 2, 1989 may contain up to, but no more than, five lots with a density of one du/two acres. Contiguous lots of record existing on October 2, 1989 may be combined into one parcel for development. The number of two-acre lots and the total number of lots in the combined parcel cannot exceed the sum of the number of lots which could be created from each lot of record.
CANE-CA CANE-PW	1 du/ five acres Lots of record existing on October 19, 1999 may contain up to, but no more than, five lots as small as two acres in size. Contiguous lots of record existing on October 19, 1999 may be combined into one parcel for development. The number of two-acre lots and the total number of lots in the combined parcel cannot exceed the sum of the number of lots which could be created from each lot of record.
U-ENO-CA LITTLE-PW	1 du / 2 acres
HYCO-PW FLAT-PW	1 du/ 40,000 square feet (.92 acre)
U-ENO-PW L-ENO-PW HAW-PW JORDAN-PW BACK-PW	Maximum density is as permitted in the underlying zoning district. Structural BMPs are required in some cases where density exceeds 1 dwelling unit per acre. Refer to Section 4.2.5.

4.2.5 Impervious Surface and Detention Pond Requirements for Residential Uses

TABLE 4.2.5.1: IMPERVIOUS SURFACE/DETENTION POND REQUIREMENTS (RESIDENTIAL)	
DISTRICT	IMPERVIOUS SURFACE/DETENTION POND REQUIREMENTS (RESIDENTIAL)
UNIV-CA UNIV-PW	6% impervious surface limit. EXCEPT for all lots which existed prior to 4/2/90, which are subject to impervious surface limits as provided in the following Table (entitled Sliding Scale for Residential Impervious Surface Ratios – Univ, Cane, and Little). [1]. [2] <del>BMPs cannot be used to satisfy watershed impervious surface requirements.</del> <sup>1</sup>
CANE-CA CANE-PW	6% impervious surface limit. EXCEPT for lots smaller than two acres which existed prior to 1/1/94, which are subject to impervious surface limits as provided in the following Table (entitled Sliding Scale for Residential Impervious Surface Ratios – Univ, Cane, and Little). [1]. [2] <del>* BMPs cannot be used to satisfy watershed impervious surface requirements.</del>
U-ENO-CA	6% impervious surface limit. EXCEPT for lots smaller than five acres which existed prior to 6/1/2010, which are subject to impervious surface limits as provided in the following Table (entitled Sliding Scale for Residential Impervious Surface Ratios – Upper Eno). [1]. [2] <del>* BMPs cannot be used to satisfy watershed impervious surface requirements.</del>
LITTLE-PW	6% impervious surface limit. EXCEPT for lots which existed prior to 1/1/94, which are subject to impervious surface limits as provided in the following Table (entitled Sliding Scale for Residential Impervious Surface Ratios - Univ, Cane, and Little). [1]. [2] <del>* BMPs cannot be used to satisfy watershed impervious surface requirements.</del>
FLAT-PW HYCO-PW	12% impervious surface limit for new and existing lots. [1]. [2] <del>* BMPs cannot be used to satisfy watershed impervious surface requirements.</del>
U-ENO-PW BACK-PW	12% impervious surface limit for existing and new lots outside of Transition Areas as designated in the Orange County Land Use Plan. [1]. [2] <del>[1] BMPs cannot be used to satisfy watershed impervious surface requirements.</del> 30% impervious surface limit for developments which exceed a density 1 du/acre within Transition Areas as designated in the Orange County Land Use Plan. Structural BMPs are required if impervious surface exceeds 12%. 70% impervious surface limit for residential uses developed at “high intensity” densities (R-5, R-8, and R-13) in an Economic Development District as designated in the Land Use Element of the Comprehensive Plan (high-density option) with structural BMPs if ISR <del>exceeds</del> >12%.
L-ENO-PW	24% impervious surface limit with curb and gutter. 36% impervious surface limit without curb and gutter. [1]. [2] <del>[1] BMPs cannot be used to satisfy watershed impervious surface requirements.</del> 70% impervious surface limit for residential uses developed at “high intensity” densities (R-5, R-8, and R-13) in an Economic Development District as designated in the Land Use Element of the Comprehensive Plan (high-density option), with structural BMPs required when impervious surface exceeds: 24% (w/ curb and gutter); or 36% (w/o curb and gutter).
HAW-PW JORDAN-PW	24% impervious surface limit. [1]. [2] <del>[1] BMPs cannot be used to satisfy watershed impervious surface requirements.</del>
<del>[1] BMP's as mandated by the Stormwater Management Program for Lands within the Neuse River Basin are allowed. Allowable impervious surface area may be modified in accordance with Section 4.2.8 of the UDO.</del> <sup>2</sup>	

<sup>1</sup> Staff is editing existing notes throughout the Section to address existing typographical and reference errors. In the existing text an asterisk (“\*”) in certain cases was used to denote information while in other cases it was not. There was also a [1] used to identify certain watersheds requiring a BMP in the Neuse River Basin. Unfortunately the watershed overlay districts identified are not in the Neuse River Basin. The proposed amendments address these issues and clarify the essential information.

<sup>2</sup> This references the Section of the UDO where are now recognizing a State provision allowing for the additional allotment of impervious surface area through the use of specific BMPs.

TABLE 4.2.5.1: IMPERVIOUS SURFACE/DETENTION POND REQUIREMENTS (RESIDENTIAL)	
DISTRICT	IMPERVIOUS SURFACE/DETENTION POND REQUIREMENTS (RESIDENTIAL)
<p><u>[2] A stormwater feature/best management practice (BMP) shall be required in accordance with applicable local and State standards based on proposed land disturbance.</u><sup>3</sup></p>	

**(A) Hillsborough Economic Development District**

- (1) The Hillsborough Economic Development District is located within the Lower Eno - Unprotected watershed. Within the Hillsborough Economic Development District, as designated in the Land Use Element of the Comprehensive Plan, the maximum impervious surface ratio is 50% with detention ponds.

TABLES 4.2.5.2 & 4.2.5.3: SLIDING SCALE FOR RESIDENTIAL IMPERVIOUS SURFACE RATIOS – UNIV, CANE, LITTLE, AND UPPER ENO						
LOT SIZE (ACRES)	ISR	SQUARE FEET		LOT SIZE (ACRES)	ISR	SQUARE FEET
Cells in black DO NOT apply to the Upper Eno						
6+	5.0			3.1	9.8	13,234
6.0	5.0	13,068		3.0	10.0	13,068
5.9	5.1	13,107		2.9	10.2	12,885
5.8	5.2	13,138		2.8	10.4	12,685
5.7	5.3	13,159		2.7	10.6	12,467
5.6	5.4	13,172		2.6	10.8	12,232
5.5	5.5	13,177		2.5	11.0	11,979
5.4	5.6	13,172		2.4	11.2	11,709
5.3	5.7	13,159		2.3	11.4	11,421
5.2	5.8	13,138		2.2	11.6	11,116
5.1	5.9	13,107		2.1	11.8	10,794
5.0	6.0	13,068		2.0	12.0	10,454
4.9	6.2	13,234		1.9	12.2	10,097
4.8	6.4	13,381		1.8	12.4	9,723
4.7	6.6	13,512		1.7	12.6	9,331
4.6	6.8	13,625		1.6	12.8	8,921
4.5	7.0	13,721		1.5	13.0	8,494
4.4	7.2	13,880		1.4	13.2	8,050
4.3	7.4	13,861		1.3	13.4	7,588
4.2	7.6	13,904		1.2	13.6	7,109
4.1	7.8	13,930		1.1	13.8	6,612
4.0	8.0	13,939		1.0	14.0	6,098
3.9	8.2	13,930		0.9	14.2	5,567
3.8	8.4	13,904		0.8	14.4	5,018
3.7	8.6	13,861		0.7	14.6	4,452
3.6	8.8	13,800		0.6	14.8	3,868

<sup>3</sup> Requiring a BMP is based on the proposed land disturbance of a project not on how much impervious surface are is proposed for a parcel of property. This land disturbance thresholds varies for each district consistent with State requirements. We are adding language to the UDO clarifying when a BMP is required.

**TABLES 4.2.5.2 & 4.2.5.3: SLIDING SCALE FOR RESIDENTIAL IMPERVIOUS SURFACE RATIOS – UNIV, CANE, LITTLE, AND UPPER ENO**

LOT SIZE (ACRES)	ISR	SQUARE FEET		LOT SIZE (ACRES)	ISR	SQUARE FEET
Cells in black DO NOT apply to the Upper Eno						
3.5	9.0	13,721		0.5	15.0	3,267
3.4	9.2	13,625		0.4	15.2	2,648
3.3	9.4	13,512		0.3	15.4	2,012
3.2	9.6	13,382		0.2	15.6	1,359

**4.2.6 Impervious Surface, Detention Pond, and Lot Size Requirements for Non-Residential Uses**

Unless otherwise noted in the Table below, minimum lot sizes shall be in conformance with the underlying zoning district.

**TABLE 4.2.6: IMPERVIOUS SURFACE/DETENTION POND REQUIREMENTS**

DISTRICT	IMPERVIOUS SURFACE/DETENTION POND REQUIREMENTS (NON-RESIDENTIAL)
<del>UNIV-CA UNIV-PW<sup>4</sup></del>	<del>Same as Residential (See Table in subsection 4.2.5)</del>
<del>UNIV-CA CANE-CA</del>	<del>5-acre minimum lot size, with potential of up to five lots as small as two acres for lots of record October 19, 1999; AND 6% impervious surface limit. [1], [2] BMPs cannot be used to satisfy watershed impervious surface requirements.</del>
U-ENO-CA	2-acre minimum lot size AND 6% impervious surface limit. [1], [2]
<del>UNIV-PW CANE-PW</del>	<del>5-acre minimum lot size with potential of up to five lots as small as two acres for lots of record October 19, 1999 (Amended 10-19-99); AND 50% ISR for all fire stations and solid waste collection centers; AND 12% ISR for all other non-residential uses; AND on-site infiltration of the first inch of stormwater runoff; AND a limit of 1.0% of the watershed for non-residential use (139 acres in CANE-PW). [1], [2] BMPs cannot be used to satisfy watershed impervious surface requirements.</del>
LITTLE-PW	2-acre minimum lot size AND 50% ISR for all fire stations and solid waste collection centers; AND 12% ISR for all other non-residential uses; AND on-site infiltration of the first inch of stormwater runoff; AND a limit of 1.0% of the watershed for non-residential use (406 acres in LITTLE-PW). [1], [2] BMPs cannot be used to satisfy watershed impervious surface requirements.

<sup>4</sup> Staff would like to discuss modifying these provisions. We believe it would be more appropriate to make the regulations more consistent with other, similar overlay district as denoted herein.

**TABLE 4.2.6: IMPERVIOUS SURFACE/DETENTION POND REQUIREMENTS**

DISTRICT	IMPERVIOUS SURFACE/DETENTION POND REQUIREMENTS (NON-RESIDENTIAL)
U-ENO-PW BACK-PW	<p>70%</p> <p>ISR in Economic Development, Commercial and/or Commercial- Industrial Nodes as designated in the Land Use Element of the Comprehensive Plan (high-density option) with structural BMPs if ISR <u>&gt;exceeds</u> 12%; AND 50% ISR for all fire stations and solid waste collection centers outside of Commercial and/or Commercial-Industrial Nodes as designated in the Land Use Element of the Comprehensive Plan, with structural BMPs if ISR <u>&gt;exceeds</u> 12%; AND</p> <p>12% ISR for all other non-residential uses outside of Commercial and/or Commercial-Industrial Nodes as designated in the Land Use Element of the Comprehensive Plan (<u>* BMPs cannot be used to satisfy watershed impervious surface requirements</u>); AND</p> <p>on-site infiltration of the first inch of stormwater runoff; AND</p> <p>A limit of 1,151 acres of non-residential use throughout U-ENO-PW (5.0%) and 163 acres throughout BACK-PW (1%). <u>[1], [2]</u></p>
HYCO-PW FLAT-PW	<p>50% ISR for all fire stations and solid waste collection centers; AND</p> <p>12% ISR for all other non-residential uses; AND</p> <p>on-site infiltration of the first inch of stormwater runoff; AND</p> <p>limit of 1% of the watershed for non-residential use (37 acres in HYCO-PW, 66 acres in FLAT-PW). <u>[1], [2] BMPs cannot be used to satisfy watershed impervious surface requirements.</u></p>
L-ENO-PW	<p>70% impervious surface, with structural BMPs required when impervious surface exceeds:</p> <p>24% (w/ curb and gutter); or</p> <p>36% (w/o curb and gutter). <u>[1], [2]</u></p>
HAW-PW JORDAN-PW	<p>24% impervious surface limit.</p> <p><u>[1], [2] BMPs cannot be used to satisfy watershed impervious surface requirements.</u></p>
<p><u>[1] BMP's as mandated by the Stormwater Management Program for Lands within the Neuse River Basin are allowed.</u></p> <p><u>[1] Allowable impervious surface area may be modified in accordance with Section 4.2.8 of the UDO.</u></p> <p><u>[2] For non-residential developments a stormwater feature/best management practice (BMP) shall be required in accordance with applicable local and State standards based on proposed land disturbance and/or a project exceeding 12% impervious as identified herein.</u></p> <p>NOTE: Non-residential use impervious acreage limits in watershed with such limits are calculated using the <u>actual</u> amount of impervious surface for non-residential uses throughout the watershed, not by the overall number of acres of non-residential parcels located in a particular watershed.</p>	

**(A) Hillsborough Economic Development District**

- (1) The Hillsborough Economic Development District is located within the Lower Eno - Unprotected watershed. Within the Hillsborough Economic Development District, as designated in the Land Use Element of the Comprehensive Plan, the maximum impervious surface ratio is 50% with detention ponds.

**4.2.7 Placement of Streets, Driveways, and Buildings**

- (A) Streets, driveways, and buildings or other structures shall be located, to the extent reasonably possible, so as to take full advantage of the absorptive capacity of the soils on which they are to be situated and to avoid the following environmentally sensitive areas:
  - (1) Stream buffer zones as required by Section 6.13;
  - (2) Wetlands as defined by the U.S. Army Corps of Engineers;
  - (3) Land with slopes greater than 15%; and
  - (4) Natural areas as identified in the Inventory of Natural Areas and Wildlife Habitats of Orange County, NC.

- ~~(B) To avoid creating lots that will be difficult to build upon in compliance with the standards of this Section, the preliminary plan shall show proposed building envelopes and approximate driveway locations for all lots within subdivisions.~~
- ~~(1) A zoning compliance permit shall not be issued for the construction of buildings or driveways outside the areas so designated on the preliminary plan unless the Planning Director makes a written finding that the proposed location complies with the provisions of this Section and Sections 6.13 (Stream Buffers) and 6.14 (Stormwater Management).~~

#### 4.2.8 Modifications of the Impervious Surface Ratio

Modifications of the Impervious Surface Ratios may be requested through one of the following provisions:

- (A) Through variance procedures of the Board of Adjustment, as described in Section 2.10.
- (B) Through approval and recordation of a conservation agreement, as provided in Article 4 of Chapter 121 of the N.C. General Statutes, between Orange County and a land owner that prohibits development of land in a protected watershed in perpetuity, subject to the following:
- (1) A modification of the required impervious surface ratios may be approved administratively but only to the extent that additional land in the same watershed is conserved or protected from development.
- (2) The land which will be subject to a conservation agreement must be adjacent to the land proposed for development and for which a modification of the impervious surface ratios is sought.
- (a) As an example, a person owning a 40,000 square foot lot and subject to a 12% impervious surface ratio would be limited to 4,800 square feet of impervious coverage. If the person's plans called for 5,500 square feet of coverage (a difference of 700 square feet), the recording of a conservation easement on 5,833 square feet of contiguous property would satisfy the impervious surface ratio requirements. (12% of 5,833 square feet is 700 square feet.)
- (b) The conservation easement shall describe the property restricted in a manner sufficient to pass title, provide that its restrictions are covenants that run with the land and, be approved in form by the County Attorney.
- (c) The conservation easement shall, upon recording, be in the place of a first priority lien on the property (excepting current ad valorem property taxes) and shall remain so unless, with the approval of Orange County, it is released and terminated.
- (d) Orange County shall require the priority of the conservation easement to be certified by an attorney-at-law, licensed to practice law in the State of North Carolina and approved to certify title to real property.
- (e) Orange County approval of a release or termination of the conservation agreement shall be declared on the document releasing or terminating the agreement. The document shall be signed by the Orange County Manager, upon approval of the Board of County Commissioners. No such document shall be effective to release or terminate the conservation agreement until it is filed for registration with the Register of Deeds of Orange County.

(C) Through the installation of a stormwater feature, consistent with the adopted State BMP Manual.

(1) A property owner shall hire an engineer to complete a stormwater assessment of the current property identifying its infiltration rates and carrying capacity as well

as a comprehensive soil assessment for the property.

(2) The development/design of the feature shall be in accordance with established design criteria as embodied within the State stormwater manual. Additional allowable impervious surface area shall be based on the soil composition of the property consistent with State regulations.

(3) The property owner shall be responsible for the completion and submission of a stormwater operation/maintenance agreement detailing the perpetual maintenance, inspection, and upkeep of the approved BMP in accordance with County and State regulations. This document shall be reviewed by the County Attorney's office and Engineering, Erosion Control and Stormwater Division staff. Once approved, the document shall be recorded in the Orange County Registrar of Deeds office.

The property owner assumes all financial and legal responsibility for the maintenance and upkeep of the approved BMP.

(4) The property owner shall assume all costs associated with the preparation and recordation of new plat(s)/development restrictions detailing the allowable impervious surface limit(s) for the property once the BMP has been approved by the County.

**4.2.9 Water Supply / Sewage Disposal Facilities**

TABLE 4.2.9: WATER SUPPLY/SEWAGE DISPOSAL FACILITIES	
DISTRICT	WATER SUPPLY/SEWAGE DISPOSAL
UNIV-CA UNIV-PW	Water supply and sewage treatment systems shall be limited to individual wells and on-site septic tanks systems or individual on-site alternative disposal systems.
All Watershed Overlay Districts	No new treatment system will be permitted where effluent disposal occurs on a separate lot from the source of wastewater generation; provided, however, off-site systems shall be permitted in all Watershed Overlay Districts except the University Lake Protected Watershed (UNIV-PW) and Critical Area (UNIV-CA) when located in a Flexible Development subdivision approved in accordance with Section 7.13 of this Ordinance.
UNIV-CA	New septic tanks and their nitrification fields shall be located outside of any stream buffers, or 300 feet from a reservoir or perennial or intermittent stream as shown on the USGS Quadrangle maps, whichever is further
CANE-CA U-ENO-CA	New septic tanks, pump tanks and their appurtenances shall be located outside of any stream buffers and at least 100 feet from a perennial or intermittent stream as shown on the USGS Quadrangle maps, and at least 150 feet from a reservoir. New nitrification fields shall be located outside of any stream buffers and at least 100 feet from a perennial or intermittent stream as shown on the USGS Quadrangle maps, and at least 300 feet from a reservoir.
CANE-PW CANE-CA U-ENO-CA	Water supply and sewage treatment systems shall be limited to individual wells and septic tanks or individual on-site alternative disposal systems; provided however, off-site systems shall be permitted when located in a Flexible Development subdivision approved in accordance with Section 7.13 of this Ordinance.
UNIV-PW CANE-PW U-ENO-PW HYCO-PW LITTLE-PW BACK-PW HAW-PW JORDAN-PW L-ENO-PW FLAT-PW	New septic tanks and their nitrification fields shall be located outside of any stream buffers and at least 100 feet from a perennial or intermittent stream as shown on the USGS Quadrangle maps.

## INFORMATION ITEM

1

PLANNING & INSPECTIONS DEPARTMENT  
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## MEMORANDUM

**TO:** Board of County Commissioners  
Bonnie B. Hammersley, County Manager

**FROM:** Michael D. Harvey, Current Planning Supervisor  
Wesley Poole, Erosion Control/Stormwater

**CC:** John Roberts, County Attorney  
James Bryan, County Attorney

**DATE:** March 3, 2015

**SUBJECT:** INFORMATION ITEM – Response to Petition Impervious Surface Issues

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Please accept the following memorandum responding to a property owner inquiry over impervious surface allocations within Orange County.

**EXECUTIVE SUMMARY:** The County is, for the most part, more restrictive than the State with respect to established impervious surface limits. There are no impervious surface limit(s) for properties not located within a 'protected' or 'critical' Watershed Protection Overlay District.

There has been an increase in requests, both at a staff and elected official level, from property owners seeking additional impervious surface allotments beyond established limits. The State allows for the installation/use of a stormwater feature, commonly referred to as Best Management Practices (BMPs), allowing additional impervious surface area on a given property in certain circumstances.

The use of a BMP is not, however, universally applicable throughout the County and can be limited based on soil composition, drainage, and topography. There are concerns related to establishing a program allowing for additional impervious surface area through the use of a BMP, as well as the perpetual maintenance costs of such infrastructure, causing staff to believe the option has limited viability.

**BACKGROUND:** In accordance with NC General Statute 143 Chapter 21, Orange County adopted watershed management standards in the late 1980's early 1990's establishing regulations to prevent significant future water quality deterioration in 'existing or potential future drinking water reservoirs'. This included the adoption of impervious surface limits for properties designated as being located within either 'protected' or 'critical' watershed areas.

Impervious surface is defined within Article 10 *Definitions* of the UDO as:

*A surface composed of any material that impedes or prevents the natural infiltration of water into the soil. Such surfaces include concrete, asphalt, and gravel surfaces. These include, but are not limited to streets and parking areas, sidewalks, patios, and structures that cover the land.*

Large amounts of impervious surface on a parcel of property impacts water quality by limiting the availability of undisturbed natural area allowing for the infiltration and treatment of stormwater runoff. To address this issue, the County adopted limits on the total cumulative amount of impervious surface(s) that can be developed thereby encouraging the preservation of natural area and allowing for more on-site infiltration.

Impervious surface limits vary based on a properties location within a Watershed Protection Overlay District. Please refer to Attachment 1 for a chart breaking down current impervious surface limits in each district. Please note there are no impervious surface limits on those properties not located within a 'protected' or 'critical' Watershed Protection Overlay District. This includes areas north of Chapel Hill, around the Town of Hillsborough, and a portion of land area within the Bingham Township. For more information on the location of various overlay districts, please refer to Attachment 2.

**ISSUE:** Staff and Board members have received numerous inquiries related to increasing allowable impervious surface area including:

- Increasing allowable impervious surface percentages in Watershed Protection Overlay Districts,
- Allow additional impervious surface area on property based on the installation of a stormwater feature, and
- Exempt gravel from being considered an 'impervious surface area'.

The County already has procedures in place, specifically contained Section 4.2.8 of the Unified Development Ordinance (UDO), allowing for a property owner to modify the allowable impervious surface area for a parcel, specifically:

- a. Applying for a variance

STAFF COMMENT: Obtaining a variance from existing impervious surface limits is extremely difficult as the property owner has to demonstrate there is a unique hardship on the property.

- b. Proposing the establishment of a conservation easement on an adjacent parcel of property. This conservation easement would allow for a defined area to remain in a natural, undeveloped, state while allowing for the transfer of the impervious surface area to the subject parcel to facilitate development.

It should be noted in 2014 the State Legislature adopted a temporary rule eliminating certain types of gravel from being classified as an impervious surface. This rule, however, was rescinded resulting in all forms of gravel being considered an impervious surface and calculated as same.

**STATE ALLOWANCES:** The State has produced a stormwater manual, denoting required design elements, which can be viewed at: <http://portal.ncdenr.org/web/lr/bmp-manual>. Property owners proposing a certain level of disturbance are required to comply with established stormwater provisions as detailed within the UDO.

In certain circumstances the State allows the installation of a stormwater feature, commonly referred to as a Best Management Practice (BMP), providing an opportunity for the installation of additional impervious surface area. As of the writing of this memorandum, the State recognizes only one BMP option allowing for additional impervious surface allocation, specifically:

Permeable pavement - allows stormwater to infiltrate through void spaces for temporary storage and, ultimately, to be infiltrated into the soil. The total amount of additional impervious surface allotment is based on the soil type.

Viability of permeable pavement is determined on a case by case basis with no guarantee(s).

According to the manual, permeable pavement has the following general advantages and disadvantages:

<b>Advantages:</b>	<b>Disadvantages</b>
<ul style="list-style-type: none"> <li>• Replaces built upon area with materials that allow for infiltration of stormwater.</li> <li>• Eliminates standing water on pavement.</li> <li>• Helps to reduce pollutant runoff concerns from a parcel of property.</li> </ul>	<ul style="list-style-type: none"> <li>• Without proper maintenance it can become clogged by sediment, compromising its effectiveness.</li> <li>• Not applicable for all site conditions.</li> <li>• Higher costs (i.e. installation and perpetual maintenance)</li> </ul>

County regulations, as contained in Section(s) 4.2.5 and 4.2.6 of the UDO, prohibit the use of BMPs as satisfying, or allowing for an increase in allowable, impervious surface area.

**UPDATE:** Staff would like to offer the following:

1. Members of the Planning Department and Erosion Control/Stormwater are scheduled to review various elements of the existing stormwater program and possible use of BMPs to allow for additional impervious surface area with State officials on February 25, 2015.
2. Staff is developing potential amendment(s) to existing regulations requiring developers to address the comprehensive impact of development with respect to impervious surface limits and stormwater management.

Our goal is to offer an option whereby a developer of a subdivision could install the necessary infrastructure to off-set runoff from roadways and/or developed parcels thereby relieving future property owners from accepting responsibility for the installation and maintenance of individual stormwater management controls on a lot by lot basis. This, in turn, may result in additional impervious surface allocations for each proposed lot within a subdivision.

We are also looking to establish a policy to address older subdivisions, developed prior to the adoption of impervious surface limits, where impervious area within roadways are calculated as being within part of individual lots.

3. Staff is looking for direction from the BOCC on the need to establish impervious surface limit(s) on those areas of the County not located within a Watershed Protection Overlay District.
4. In addressing inquiries made by Dr. Janel Sexton at the December 9, 2014 BOCC meeting, the County could:
  - a. Amend existing impervious surface limits within the various Watershed Protection Overlay Districts to be consistent with current State allowances as detailed in Attachment 1.

This would result in a net increase for some residents in the total cumulative amount of permitted impervious surface area allowed on their property.

STAFF COMMENT: It would be incumbent on local property owners to work with staff to record new plats and declarations of development restrictions to reflect this increase in allowable impervious surface area.

The property owner would absorb any expense in the creation of these document(s).

There will be a finite number of property owners who will be able to take advantage of this provision.

- b. Amend the UDO to allow for the placement of additional impervious surface area on property with the installation/use of a BMP consistent with State regulations. In staff's opinion this amendment would include, at a minimum, the following elements:
      - i. Consistent with State policy, requiring a property owner to hire an engineer to complete a stormwater assessment of the current property identifying its infiltration rates and carrying capacity. This would include the completion of a comprehensive soil assessment for the property.

STAFF COMMENT: State officials have previously indicated soils in our area do not universally lend themselves to being viable candidates for the installation of a BMP and receiving additional impervious surface allotments. Lots have to be reviewed on a case-by-case basis.

Even if we implement the program described herein, opportunities for local property owners to participate in such a program may be limited.

- ii. Have an engineer develop a BMP to 'treat' runoff thereby allowing for additional impervious surface.

STAFF COMMENT: We would recommend the establishment of a cap on the total amount of additional impervious surface allowed per Watershed Protection Overlay District through this method.

For example, we may allow for an additional 50% of impervious surface area in the University Lake Protected/Critical Watershed Protection Overlay Districts beyond the established 6% threshold (i.e. maximum of 9%).

This translates to a 2 acre parcel of property, normally allowed 5,227 sq. ft. of impervious surface area (43,560 x 2 x 0.06) to have 7,840 sq. ft. (43,560 x 2 x 0.09).

- iii. Establish a maintenance/inspection/certification policy where the property owner will have to ensure the perpetual viability of the approved BMP. We would also require documents to be recorded within the Orange County Registrar of Deeds office detailing same.

STAFF COMMENT: This has the potential to be costly. The property owner will be required to absorb the cost of:

1. Maintaining the installed BMP,
  2. The cost of an engineer's annual/bi-annual inspection certifying the BMP is working properly, and
  3. The annual/bi-annual inspection by the County as required within the UDO.
- iv. Review the need for the posting of a bond or a letter of credit allowing for the removal of the system, and excess impervious surface area, if the property owner fails to properly maintain the system.
  - v. Require the property owner to record documents detailing new impervious surface limits in the Orange County Registrar of Deeds office (i.e. new subdivision plat(s), impervious surface declaration, stormwater operational/maintenance agreement, etc.).

STAFF COMMENT: There are subdivisions in the County with locally established impervious surface limits enforced by a homeowners association.

Unless these limits are also modified the property owner will be unable to take advantage of any County approved increase.

ATTACHMENT 1 – COUNTY AND STATE  
IMPERVIOUS SURFACE LIMITS:

6

Watershed Overlay District	Impervious Surface Limits – Residential	Impervious Surface Limits – Non-residential	State Allowances
University Lake – Protected  (STATE Classified WS-II Watershed Area)	<p style="text-align: center;">6%</p> <p>Lots existing prior to April 2, 1990 subject to sliding scale – See Section 4.2.5.2 of UDO</p> <p>Density in this area is limited to 1 dwelling unit for every 5 acres of property.</p> <p>Certain parcels in existence prior to October 2, 1989 qualify for a density bonus of a maximum of 5 dwelling units for every 2 acres of property with any future development being held to the 1 unit for 5 acre density limit.</p>	<p style="text-align: center;">6%</p> <p>Lots existing prior to April 2, 1990 subject to sliding scale – See Section 4.2.5.2 of UDO</p> <p>Density in this area is limited to 1 dwelling unit for every 5 acres of property.</p> <p>Certain parcels in existence prior to October 2, 1989 qualify for a density bonus of a maximum of 5 dwelling units for every 2 acres of property with any future development being held to the 1 unit for 5 acre density limit.</p>	<p>Low Density Option:</p> <ul style="list-style-type: none"> <li>• 6% limit with minimum lot size of 1 acre</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>• 12% limit with minimum lot size of 2 acres.<sup>1</sup></li> </ul> <p>High Density Option:<sup>2</sup></p> <p>If new development exceeds low density option, engineered stormwater controls required with development limited to either 24% to 30% impervious surface area<sup>3</sup></p> <p>A maximum of 10% of the watershed outside of a Critical Area can be developed up to 70% impervious with a structural BMP.</p>
University Lake – Critical  (STATE Classified WS-II Watershed Area)	<p style="text-align: center;">6%</p> <p>Lots existing prior to April 2, 1990 subject to sliding scale – See Section 4.2.5.2 of UDO</p> <p>Density in this area is limited to 1 dwelling unit for every 5 acres of property.</p> <p>Certain parcels in existence prior to October 2, 1989 qualify for a density bonus of a maximum of 5 dwelling units for every 2 acres of property with any future development being held to the 1 unit for 5 acre density limit.</p>	<p style="text-align: center;">6%</p> <p>Lots existing prior to April 2, 1990 subject to sliding scale – See Section 4.2.5.2 of UDO</p> <p>Density in this area is limited to 1 dwelling unit for every 5 acres of property.</p> <p>Certain parcels in existence prior to October 12, 1989 qualify for a density bonus of a maximum of 5 dwelling units for every 2 acres of property with any future development being held to the 1 unit for 5 acre density limit.</p>	SAME AS ABOVE

<sup>1</sup> Property within the University Lake Protected and Critical Watershed Protection Overlay Districts is also located within the Rural Buffer (RB) general use zoning district. In developing the RB zoning district, which was done prior to the development and adoption of Watershed Overlay standards, the County chose to require a 2 acre minimum lot size. We then chose to impose the more restrictive impervious surface limit in an effort to ensure the protection of the Chapel Hill/Carrboro water source.

<sup>2</sup> There was a conscious decision made as reflected in the Joint Planning Land Use Plan, Joint Planning Land Use Plan Agreement, and adopted 2030 Comprehensive Plan to keep the area within the RB zoning district at a low density. Changing this policy will require the amendment of the aforementioned document(s). Non-residential development(s) are held to the 6% impervious surface limit.

<sup>3</sup> Critical areas, under high density, are limited to 24% while protected areas are limited to 30% impervious surface.

Watershed Overlay District	Impervious Surface Limits – Residential	Impervious Surface Limits – Non-residential	State Allowances
Cane Creek – Protected  (STATE Classified WS-II Watershed Area)	<p style="text-align: center;">6%<sup>4</sup></p> <p>Lots existing prior to January 1, 1994 subject to sliding scale – See Section 4.2.5.2 of UDO</p> <p>Density in this area is limited to 1 dwelling unit for every 5 acres of property.</p> <p>Certain parcels in existence prior to October 19, 1999 qualify for a density bonus of a maximum of 5 dwelling units for every 2 acres of property with any future development being held to the 1 unit for 5 acre density limit.</p>	<p style="text-align: center;">12%</p> <p>Lots existing prior to January 1, 1994 sliding scale – See Section 4.2.5.2 of UDO</p> <p style="text-align: center;">5 acre minimum lot size</p> <p>50% impervious surface limit for all fire stations and solid waste collection centers (with stormwater feature)</p>	<p>Low Density Option:</p> <ul style="list-style-type: none"> <li>• 6% limit with minimum lot size of 1 acre</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>• 12% limit with minimum lot size of 2 acres</li> </ul> <p>High Density Option:</p> <p>If new development exceeds low density option, engineered stormwater controls required with development limited to either 24% to 30% impervious surface area</p> <p>A maximum of 10% of the watershed outside of a Critical Area can be developed up to 70% impervious with a structural BMP.</p>
Cane Creek – Critical  (STATE Classified WS-II Watershed Area)	<p style="text-align: center;">6%</p> <p>Lots existing prior to April 2, 1990 subject to sliding scale – See Section 4.2.5.2 of UDO</p> <p>Density in this area is limited to 1 dwelling unit for every 5 acres of property.</p> <p>Certain parcels in existence prior to October 19, 1999 qualify for a density bonus of a maximum of 5 dwelling units for every 2 acres of property with any future development being held to the 1 unit for 5 acre density limit.</p>	<p style="text-align: center;">6%<sup>5</sup></p> <p style="text-align: center;">5 acre minimum lot size</p> <p>Lots existing prior to April 2, 1990 subject to sliding scale – See Section 4.2.5.2 of UDO</p>	SAME AS ABOVE

<sup>4</sup> The Cane Creek Protected Watershed Protection Overlay District originally had a 12% impervious surface limit for residential developments. It appears to have been changed to be consistent with State standards.

<sup>5</sup> There is no High Density Option currently available in the Cane Creek Critical Watershed Protection Overlay District.

Watershed Overlay District	Impervious Surface Limits – Residential	Impervious Surface Limits – Non-residential	State Allowances <sup>8</sup>
Upper Eno – Protected <sup>6, 7</sup> (STATE Classified WS-II Watershed Area)	<p>12% for properties outside of Transition Areas</p> <p>30% for properties located within Transition Areas where density exceeds 1 dwelling unit per acre</p> <p>70% for residential land uses developed at 'high densities' (R-5, R-8, R-13). A BMP shall be required in this scenario</p> <p>Density in this area is based on underlying general use zoning designation</p>	<p>70 % in Economic Development, Commercial, and Commercial Industrial Transition Activity Nodes with development of a BMP .</p> <p>50% for all fire stations/solid waste collection centers outside of these Activity Nodes with development of a BMP</p> <p>12% for all other non-residential development outside of Activity Nodes.</p>	<p>Low Density Option:</p> <ul style="list-style-type: none"> <li>• 6% limit with minimum lot size of 1 acre</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>• 12% limit with minimum lot size of 2 acres</li> </ul> <p>High Density Option:</p> <p>If new development exceeds low density option, engineered stormwater controls required with development limited to either 24% to 30% impervious surface area</p> <p>A maximum of 10% of the watershed outside of a Critical Area can be developed up to 70% impervious with a structural BMP.</p>
Upper Eno – Critical <sup>8</sup> (STATE Classified WS-II Watershed Area)	<p style="text-align: center;">6%</p> <p>Density in this area is limited to 1 dwelling unit for every 2 acres of property.</p> <p>Lots smaller than 5 acres existing prior to 6/1/2010 subject to sliding scale – See Section 4.2.5.2 of UDO</p>	<p style="text-align: center;">6% limit</p> <p style="text-align: center;">2 acre minimum lot size</p>	SAME AS ABOVE
Little River – Protected (STATE Classified WS-II Watershed Area)	<p style="text-align: center;">6%</p> <p>Lots existing prior to January 1, 1994 subject to sliding scale – See Section 4.2.5.2 of UDO</p> <p>Density in this area is limited to 1 dwelling unit for every 2 acres of property.</p>	<p style="text-align: center;">2 acre minimum lot size</p> <p>50% for all fire stations/solid waste collection centers outside of these Activity Nodes with development of a BMP</p> <p>12% for all other non-residential development.</p>	SAME AS ABOVE

<sup>6</sup> Per Section 4.2.4 and 4.2.5 of the UDO a structural BMP is required in some cases where density exceeds 1 dwelling unit per acre.

<sup>7</sup> The County chose to institute the High Density Option within the Upper Eno Protected Watershed Protection Overlay District.

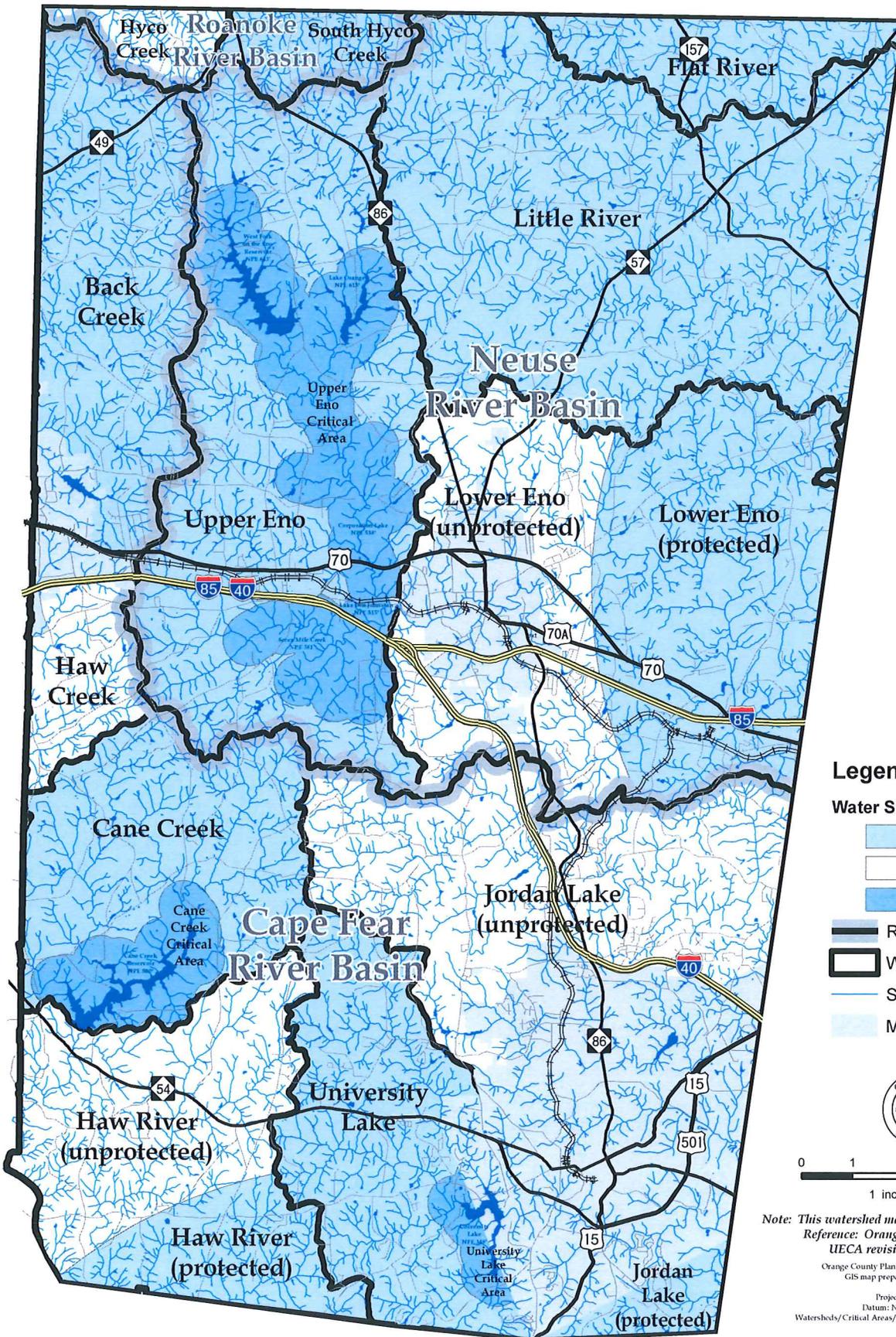
<sup>8</sup> The County's Upper Eno Critical Watershed Overlay District is larger than the State recognized critical area.

Watershed Overlay District	Impervious Surface Limits – Residential	Impervious Surface Limits – Non-residential	State Allowances <sup>9</sup>
Back Creek – Protected  (STATE Classified WS-II Watershed Area)	<p>12% for properties outside of Transition Areas</p> <p>30% for properties located within Transition Areas where density exceeds 1 dwelling unit per acre</p> <p>70% for residential land uses developed at 'high densities' (R-5, R-8, R-13). A BMP shall be required in this scenario</p> <p>Density in this area is based on underlying general use zoning designation</p>	<p>70 % in Economic Development, Commercial, and Commercial Industrial Transition Activity Nodes with development of a BMP .</p> <p>50% for all fire stations/solid waste collection centers outside of these Activity Nodes with development of a BMP</p> <p>12% for all other non-residential development outside of Activity Nodes.</p>	<p>Low Density Option:</p> <ul style="list-style-type: none"> <li>• 6% limit with minimum lot size of 1 acre</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>• 12% limit with minimum lot size of 2 acres</li> </ul> <p>High Density Option:</p> <p>If new development exceeds low density option, engineered stormwater controls required with development limited to either 24% to 30% impervious surface area</p> <p>A maximum of 10% of the watershed outside of a Critical Area can be developed up to 70% impervious with a structural BMP.</p>

Watershed Overlay District	Impervious Surface Limits – Residential	Impervious Surface Limits – Non-residential	State Allowances 10
Flat River – Protected  (STATE Classified WS-III Watershed Area)	12%  Density in this area is limited to 1 dwelling unit for every 40,000 sq. ft. (0.92 acres) of property.	50% for all fire stations/solid waste collection centers  12% for all other non-residential development.	Low Density Option: <ul style="list-style-type: none"> <li>• Density limit of 2 dwelling units per acre or 20,000 square foot minimum lot excluding roadway right-of-way</li> </ul> OR <ul style="list-style-type: none"> <li>• 24% impervious surface limit for residential/non-residential developments</li> </ul> High Density Option: If new development exceeds low density option, engineered stormwater controls required with development limited to 50% impervious surface area
South Hyco Creek – Protected  (STATE Classified WS-III Watershed Area)	12%  Density in this area is limited to 1 dwelling unit for every 40,000 sq. ft. (0.92 acres) of property.	50% for all fire stations/solid waste collection centers  12% for all other non-residential development.	SAME AS ABOVE

Watershed Overlay District	Impervious Surface Limits – Residential	Impervious Surface Limits – Non-residential	State Allowances 11
Lower Eno – Protected  (STATE Classified WS-IV Watershed Area)	24% for project with curb and gutter  36% for project without curb and gutter  70% for residential land uses developed at 'high densities' (R-5, R-8, R-13). A BMP shall be required in this scenario  Density in this area is based on underlying general use zoning designation	70%, with a BMP required when an impervious surface exceeds:  24% for project with curb and gutter  OR  36% for project without curb and gutter	Low Density Option:  <ul style="list-style-type: none"> <li>• Density limit of 2 dwelling units per acre or 20,000 square foot minimum lot excluding roadway right-of-way</li> </ul> OR  <ul style="list-style-type: none"> <li>• 24% impervious surface limit for residential/non-residential development</li> </ul> OR  <ul style="list-style-type: none"> <li>• 3 dwelling units per acre</li> </ul> OR  <ul style="list-style-type: none"> <li>• 36% impervious surface limit for residential/non-residential development without curb and gutter street systems</li> </ul> High Density Option:  If new development exceeds low density option, engineered stormwater controls required with development limited to 70% impervious surface area.
Jordan Lake – Protected  (STATE Classified WS-IV Watershed Area)	24%  Density in this area is based on underlying general use zoning designation	24%	SAME AS ABOVE
Haw River – Protected  (STATE Classified WS-IV Watershed Area)	24%  Density in this area is based on underlying general use zoning designation	24%	SAME AS ABOVE

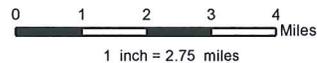
# Orange County Watersheds



### Legend

#### Water Supply Watersheds:

- Protected
- Unprotected
- Critical
- River Basin Boundary
- Watersheds
- Streams
- Municipal Jurisdiction



*Note: This watershed map replaces previous versions.  
 Reference: Orange County Zoning Ordinance  
 UECA revision adopted June 1, 2010  
 Orange County Planning & Inspections Department  
 GIS map prepared by Miriam Coleman  
 Projection: State Plane  
 Datum: North American 1983  
 Watersheds/Critical Areas/Basins Data: November, 2005 Revision*