OFFSITE NUTRIENT CREDIT FOR BMP ON INFILL LOT GRADING PLANS (DRAFT)

Offsite Nutrient Credits (ONC) are one of the methods that can be utilized to fulfill the BMP requirement; however, the County feels that they should be used only as the last option if no other BMP measure other than ONC will fit the site and will better protect the surrounding areas. When and if we approve the use of ONC, the Engineer must have reviewed all aspects of the lot to confirm that the following items have been addressed:

- 1. <u>Impervious site area</u> the allowable and desired impervious area requirement is 18%. Anything greater than that % would require a BMP facility. (Numbers in the range of 25%, 30% and more should be noted when reviewing the plan).
- 2. Lot and house configuration When designing the site and locating the house, driveway and other site features, the Engineer should identify a good location for a BMP device such as a rain garden or infiltration device. Whenever possible, the roof drains could be piped or discharged to the BMP facility. BMP locations on the lot are a critical component of the site and should not be disregarded due to the large size of the house and paved areas. 'No room for a BMP' is not a valid reason for not providing BMP structures.
- 3. <u>Site runoff</u> is the majority of the runoff composed of sheet flow or concentrated flow? If ditches or swales are being established around one or both sides of the house to carry the onsite and roof drain flows to the corners of the property, it is considered to be a concentrated discharge. What is the Q at each discharge point from the lot?
- 4. <u>Offsite areas</u> draining to the lot should be considered in the drainage divide map and runoff calculations.
- 5. <u>Downspout locations</u> should be shown and considered.

- 6. Adequate Outfall and Adequate Outfall Analysis there needs to be a defined outfall.
- 7. <u>WSPOD</u> Stormwater ordinance 124-4-5(c) does not allow nutrient credit offsite in WSPOD.

The use of ONC will require the Engineer to address the above items, specifically Adequate Outfall and the disposition of concentrated flow leaving the site. The provision of an onsite BMP device will likely resolve and eliminate most if not all of the above items that are a concern on the lot.

Chapter 124-4-4 requires:

- (d) Detention. Unless waived by the Director, the post-development peak flow for the 2-year 24-hour storm event shall be released at a rate that is equal to or less than the predevelopment peak flow rate from the 2year 24-hour storm event and the post-development peak flow for the 10-year 24-hour storm event shall be released at a rate that is less than or equal to the predevelopment peak flow rate from the 10-year 24-hour storm event. In the Four Mile Run watershed, the post-development peak flow for the 100-year storm event shall be released at a rate that is equal to or less than the predevelopment peak flow rate from the 100-year storm unless it is contraindicated by the watershed model developed for the Four Mile Run Watershed Management Program.
- (e) Increased volumes of sheet flow resulting from pervious or disconnected impervious areas, or from physical spreading of concentrated flow through level spreaders, <u>must be identified and evaluated</u> for potential impacts on down-gradient properties or resources. Increased volumes of sheet flow that will cause or contribute to erosion, sedimentation, or flooding of down gradient properties or resources shall be diverted to a stormwater management facility or a stormwater conveyance system that conveys the runoff without causing down-gradient erosion, sedimentation, or flooding. If all runoff from the site is sheet flow and the conditions of this subsection are met, no further water quantity controls are required.