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**TECHNICAL MEMORANDUM #4**

TO: Applicants and Designers for State and Federal Projects

FROM: Sediment and Stormwater Plan Review Division  
Water and Science Administration

DATE: ~~June 15, 2017~~ January 19, 2018

SUBJECT: **What is meant by “redevelopment”, “reconstruction”, “new development”, and “maintenance”?**

The term “redevelopment” is defined in the Stormwater Management Act of 2007 as “any construction, alteration, removal, or improvement performed on existing impervious area at a project site where the existing land use is commercial, industrial, institutional, or multifamily residential and the existing imperviousness for the stormwater study area exceeds 40 percent.” “Redevelopment” does not refer to the construction activity. It is a classification of development based on the percentage of existing impervious surface of the study area. The Plan Review Division uses the word “reconstruction” to refer to the general activity of rebuilding where impervious surface already exists. The 2015 Stormwater Management and Erosion & Sediment Control Guidelines for State and Federal Projects define “reconstruction” as “the removal of an existing impervious area and construction of a new impervious area within the same footprint.” It is important to recognize that the terms “redevelopment” and “reconstruction” are not interchangeable. “Redevelopment” is “reconstruction” where the existing imperviousness of the study area exceeds 40 percent. Conversely, if the existing imperviousness of the site is less than 40 percent, any “reconstruction” would then be classified as “new development.” In short, “redevelopment” is always “reconstruction”, but “reconstruction” is not always “redevelopment.”

“Reconstruction” can also be “maintenance.” Depending on the purpose of the project and the site imperviousness, any “reconstruction” will be considered either “redevelopment”, “new development”, or “maintenance”. When determining the stormwater management requirements, the activity and imperviousness of the site are considered together. Development is classified into “redevelopment”, “new development”, “maintenance”, or a combination thereof. “Redevelopment” and “new development” are explained in the Guidelines, but further discussion on “maintenance” is provided herein.

### **Maintenance and the Section 3.3.A Waiver**

“Maintenance” is defined as an activity whose purpose is to repair or restore an asset to its original function. In contrast, “redevelopment” and “reconstruction” involve alterations or improvements to the existing area. Sometimes the distinguishing factor between “maintenance” and “development” is earth disturbance, but more times than not it is irrelevant. Stormwater management is not required

when an activity is considered maintenance, regardless of whether there is associated earth disturbance. Note that the determination of maintenance versus development is only necessary when there is earth disturbance. Regardless of whether an activity is considered maintenance, stormwater management is typically not required on areas that have no earth disturbance even if the project has an overall earth disturbance equal or exceeding 5000 square feet. The exception to this would be construction that does not disturb the earth but changes the discharge point for runoff leaving the study area.

Section 3.3.A of the Guidelines allows a waiver from all quality and quantity stormwater management requirements for activities that return the disturbed area to existing conditions and result in no hydrologic changes. Maintenance is one such activity that qualifies for this waiver. Below is a list of activities that are typically considered to be maintenance and, therefore, eligible for a 3.3.A waiver from stormwater management:

1. **Pavement overlay, asphalt milling/grinding, and asphalt resurfacing.** These typically do not involve an earth disturbance so technically they do not even require a waiver;
2. **Pavement patching;**
3. **Pavement rehabilitation and in-kind replacement of impervious surfaces for maintenance purposes.** For sidewalks and concrete pavement, this usually requires full depth replacement. For asphalt surfaces, full depth replacement is dependent on how badly the surface is deteriorated. To be considered maintenance and qualify for a 3.3.A waiver, the grade, line, and cross section of the original pavement must be maintained. If the grade, line, and cross section do change, the change can only be to correct settlement or heave, and the overall drainage pattern must be unaffected.
4. **Replacement of impervious surfaces removed for the purpose of underground utility and pipe work;** A 3.3.A waiver is applicable if the surface is returned to its original condition at the conclusion of the project.
5. **Landscaping projects;**
6. **Underground activities involving pipelines, conduits, tunnels, or sanitary sewers;** A 3.3.A waiver is applicable if the surface is returned to its original condition at the conclusion of the project.
7. **In-kind storm drain replacement/remediation.** Storm drains are different from other underground systems because they convey stormwater and affect the site's hydrologic characteristics. The ramifications of a new or modified storm drain system must be considered, even if the disturbance is below 5000sf/100cy. Is a new discharge point being created? Are flow rates and/or velocities increasing due to changing the diameter, material, or slope of the storm drain? If discharges are decreasing, is there going to be a change to the headwater? If a new storm drain is being constructed or the size of an existing storm drain is being changed, there will be changes to the site's hydrology, rendering it ineligible for a stormwater management waiver. However, existing impervious surfaces that are removed and replaced for the installation of the storm drain will not require management.

Note that when an applicant submits a project where an existing improvement is to be replaced "in kind" due to its deteriorated condition, it is reasonable to regard this as maintenance work, thus qualifying for a 3.3.A waiver. For example, if an existing parking lot is being reconstructed because the pavement is broken up, it is reasonable to regard this as maintenance because the applicant is

only doing the work to keep the parking lot functional, even if the work involves full-depth reconstruction (which is what is probably necessary to keep it from prematurely failing again). However, many applicants use this opportunity to embellish the project's original design and increase the scope to widen lanes, increase the number of parking spaces, add bus shelters, add sidewalks, improve storm drainage, etc. When this kind of work is incorporated or there is a change in the use (such as shoulder to traffic lane), the project has made the transition from maintenance to new or redevelopment and therefore requires stormwater management. Also, if there is a change in surface grade or elevations, the activity will be considered new or redevelopment and will require stormwater management.

Please keep in mind that providing stormwater management is always encouraged, and impervious areas that are not currently treated for water quality could be potential restoration areas for the NPDES Municipal Separate Storm Sewer System (MS4) Permit. Note that MS4 restoration credit will be given for providing water quality management on existing impervious surfaces that do not have existing water quality treatment. So regardless of whether the Plan Review Division considers a reconstructed parking lot to be maintenance or redevelopment, providing water quality treatment (either discretionary or mandatory) will ultimately benefit the applicant in fulfilling MS4 permit requirements, not to mention the environment. It is therefore strongly recommended that on large-scale pavement rehabilitation projects, the impervious areas being reconstructed be provided with water quality treatment if none exists.

## **OTHER RELATED NOTES**

### **Gravel Surfaces**

The Plan Review Division's position is that gravel is only considered impervious when it is compacted. Gravel surfaces used for vehicular traffic are considered impervious because the vehicles compact the surface. As the surface compacts it will have the same hydrologic characteristics as a paved surface. Gravel used with a cellular confinement system should not compact if it is properly designed/installed according to the 2000 Maryland Stormwater Design Manual and is considered a pervious or alternative surface. Gravel that is not used for vehicular purposes is considered pervious, for example in stormwater management facilities, on pedestrian walkways, or as pads around electrical utilities. These gravel surfaces should be called out on the plans as not being compacted during installation.

### **Riprap Channels**

Riprap flow conveyances are not considered impervious area. Concrete channels replaced with riprap are considered to represent a decrease in impervious area. However, care must be taken to ensure that the removal of the concrete channel will not result in the creation of erosive conditions.

### **Ballast**

Because the gravel ballast between the rails and ties is not compacted and absorbs rainfall, the Plan Review Division generally considers ballast to be pervious. However, railroad beds, constructed ~~directly on top~~ compacted ~~gravel sub-base, concrete,~~ or asphalt are considered impervious. When rail sections are constructed of ballasted track on compacted sub-ballast ~~and a pervious subgrade~~, there are no water quality treatment requirements associated with ballasted track sections; however, quantity management will be required based on an RCN that is greater than existing conditions, but less than typically applied to paved surfaces. In instances where existing pavement is to be removed for the construction of ballasted track section, 50% credit for pavement removal will apply.

If the plans specify that the subgrade will be minimally compacted, the ballast area may be considered “Open Space in Good Condition” for hydrologic computations in proposed conditions. This should present a more accurate determination of runoff from the site than using a gravel RCN, which assumes compaction. Please note that this determination is specific to the project/site. If the sub~~grade-base~~ is compacted, the ballast must use a gravel RCN.

Questions about this information or other items relating to sediment and stormwater plans can be directed to Amanda Malcolm [amanda.malcolm@maryland.gov](mailto:amanda.malcolm@maryland.gov).