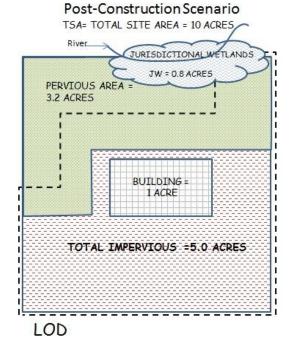
Pre-Construction Scenario TSA= TOTAL SITE AREA = 10 ACRES RIVER JURISDICTIONAL WEITHAMDS JW=0.8 ACRES TOTAL 0.2 ACRES IS IMPERVIOUS PERVIOUS AREA = 2.2 ACRES BUILDING 1 ACRE TOTAL IMPERVIOUS=6 ACRES IMPERVIOUS DISTURBANCE = 5 ACRES



Project Description: The applicant has submitted an application to rework the parking areas, provide different access points to the road, and increase pervious area around the jurisdictional wetland. The 1 acre building will not be disturbed. Five acres of parking and access will count as disturbed impervious.

Step 1- Is this Redevelopment?

Is this any construction, alteration, or improvement that disturbs a total of 10,000 square feet or more of existing impervious area?

If yes – continue to Step 2.

Step 2 - Determine the Site Size (SS)

$$(SS)=(TSA)-(JW)-(CL)$$
 where:

(TSA) = Total Site Area or Total Parcels (Acres)

(JW) = Jurisdictional Wetlands^{1,2} (CL) = Conservation Land

For this example:

$$(SS) = (TSA) - (JW) - (CL)$$

 $(SS) = 10 - (0.8-0.2) - 0$

0.5 acres is in the riverbank wetland buffer. Therefore, it is not counted as part of site size (SS)

(SS) = 9.4 acres

Step 3 - Do you qualify for reduced water quality and recharge requirements? That is, is the site

requirements? That is, is the site greater than 40% impervious? This is determined by calculating the following:

(TIA)/(SS)>=0.4

where

(TIA) = Total Impervious Area

(SS) = Site Size

For this example:

(TIA) = 6 acres

(SS) = 9.4 acres

(TIA)/(SS) = 0.64

Is the (TIA)/(SS) > 0.4?

If yes - Proceed to Step 4

Otherwise the project does not qualify for reduced treatment requirements for redevelopment and you must follow the requirements for new development.

Step 4 – Determine the area for stormwater treatment: All disturbed impervious requires 50% treatment and all new impervious requires 100% treatment. New Pervious is treated as full credit:

(STA) = (DI*50%)- (NIP)

where:

(STA) = Stormwater Treatment Area (DI) = Disturbed Impervious³ (NIP) =Net Increased Pervious (+or-)

For this example:

(DI) = 5 acres

(NIP) = Overall pervious area was increased by 1 acre – this 1 acre counts as treatment credit; this number can also be negative if there is an increase in impervious cover. Thereby requiring more treatment.

(STA) = (5*0.5) -1

(STA)= 1.5 acres of WQv and REv treatment is required⁴

Note:

- 1. Existing impervious areas within jurisdictional wetlands are excluded from (JW) measurement.
- 2. Floodplain is excluded from the (JW) measurement
- 3. New Pervious is included as a portion of Disturbed Impervious measurement
- 4. Greater treatment levels may be required for TMDL's according to section 3.2.3 of the manual

3-4A RISDISM Guidance April 11, 2013

Section 3.2.6 RISDISM Redevelopment Criteria Guidance

Further Guidance and Clarifications:

- Redevelopment is defined as disturbing more than 10,000 sq. feet of impervious cover. The manual assumes that the impervious cover is actively used. The manual states that in general, the requirements in the manual do not apply to projects or portions of projects when the total existing impervious area disturbed is less than 10,000 square feet. One example is: For stormwater discharges to the subsurface requiring registration under the DEM Groundwater Discharge Rules (formerly UIC Rules), the redevelopment requirements also apply to projects with a disturbed area of less than 10,000 square feet.
- For the purposes of this determination, the "total site area" is defined as "one or more lots, tracts, or parcels of land to be developed or redeveloped for a complex of uses, units or structures, including but not limited to commercial, residential, institutional, governmental, recreational, open space, and/or mixed uses." Generally the "total site area" is the entire subject property.
- The calculation of site size subtracts wetlands and conservation land from the "total site area" since conservation land and wetlands are not areas designated for construction. From this total site area, subtract wetland areas, including perimeter wetland areas, conservation land and riverbank wetland areas. Do not subtract jurisdictional wetlands that have already been developed with an impervious cover. The rationale here is that the exclusion of wetland areas "provides incentive to preserve and protect natural resources near redevelopment projects." The protection of such areas that have already been paved or built upon is not a goal. The result becomes site size (SS) for the 40% evaluation purposes.
- Compare this total existing impervious area with the site size for 40% evaluation purposes. If the amount of impervious area exceeds 40% of the site size, then only Standards 2,3, and 7-11 apply, unless RI DEM finds it necessary to require peak flow control on a case by case basis because the site is located within a watershed with a history of flooding problems.
- If the amount of impervious area is less than 40% of site size for 40% evaluation purposes, then the requirements will be the same as for new development, except that there is an option to meet requirements off-site within the same watershed, provided that pertinent requirements have been met on-site to the maximum extent practicable.

Guidance for determination of the required area to determine required water quality volume and required recharge.

- The area of proposed redevelopment work needs to be clearly identified based on the "limits of disturbance" (LOD) on the plans. Within the proposed limits of disturbance, determine the area of existing impervious area that will be redeveloped. Please note that removal of existing pavement down to an erodible surface is classified as redevelopment, but simple resurfacing is not.
- Please note that the redevelopment standards of the 2010 RISDISM do not apply to areas of proposed redevelopment area of less than 10,000 sf.
- Determine the area of existing impervious area within the proposed limits of disturbance that will be redeveloped (disturbed down to an erodible surface). An area equal to 50% of this area needs to be provided with water quality and recharge treatment.
- If there are areas within this existing area to be redeveloped that will be converted to a proposed pervious cover, this area is considered as treatment, and can be subtracted from the above total area that needs to be provided with water quality and recharge treatment.
- If there are proposed areas of overall increase in new impervious cover that will be constructed on existing pervious area, the full 100% of these areas needs to be provided with water quality and recharge treatment in accordance with the standards of the 2010 RISDISM.
- Determine the total water quality volume and recharge treatment required by totaling the 50% of the existing areas being redeveloped and the net change in pervious cover. In the example: there was an overall increase in pervious cover which was counted as a 1:1 credit towards treatment. Increases in impervious cover require 100% treatment which will be reflected in the calculation as an added area to treat.
- Please note that in sensitive water quality areas (such a TMDLs, SRPWs) RI DEM may require treatment of 100% of all redeveloped impervious area, rather than 50% treatment).

3-4B RISDISM Guidance April 11, 2013