



WATER RESOURCES TECHNICAL POLICY

WRTP-6

IMPLEMENTATION OF STRUCTURAL STORMWATER CONTROLS

1. When full ESD_v can not be provided for a project, the project must be re analyzed to determine the remaining CP_v that must be treated via structural methods as outlined in the MDE manual.
2. This volume must be treated via structural water quality practices to achieve full stormwater management treatment compliance for the project.
3. Structural water quality practices have drainage area limitations that may make acceptable implementation of a device difficult. Therefore an “effective drainage area” is computed for use in determining whether the device is acceptable. The “effective drainage area” to a structural practice must be within the normal drainage area limitations for the practice.
4. “Effective” area applies only in cases where ESD to the MEP has already been achieved.
5. To compute the effective drainage area to a structural practice, the percent of ESD_v provided is applied to the drainage area to determine an “effective” drainage area.
6. If the structural practice is located within a sub drainage area of the project, the sub drainage area must be analyzed to show that the required runoff treatment volume is created in a 1-year storm event. If the total required volume is not available within the sub drainage area, additional structural practices will be required elsewhere.

Example:

- Total area to the study point in which the improvements occur is three acres, and the total ESD_v required is 15,000 cubic feet.
- After reasonable effort, an ESD_v of 10,000 cubic feet is provided. This is 66% of the required ESD_v. A structural water quality device with a drainage area limitation of 1 acre is chosen to provide the required additional treatment. The remaining 33% is applied to the total drainage area to arrive at the “effective” area:

Effective Drainage Area = 3 acres x 0.33% = 1 acre

The “effective drainage area” to this facility is therefore 1 acre.

The normal maximum allowable drainage area to the practice is one acre, therefore this is considered to be an acceptable method for providing the required additional CP_v treatment for this project.