

Carroll County, Maryland

Solar Panel Guidance

See “Definition of the Site” located on the county website:

<https://www.carrollcountymd.gov/media/17151/carroll-county-swm-minimum-items-to-accept-for-review-revised.pdf>.

The calculation of required PE and ESD_v are based on the entire “site.” If this is a new development project, the site is the property plus any disturbed areas outside of the property line.

The minimum area that Carroll County has ever accepted as the “site” for a solar project is the lease line plus any disturbed area outside of the lease line. This is only acceptable if the rest of the property is and will remain in entirely different land uses (i.e. agricultural fields, woodlands, etc.). Note that existing access roads/buildings/ parking lots contiguous to the lease area are not different land uses.

ESD for Solar Panels

See MDE’s January 2013 “SWM Guidance Solar Panel Installations.”

To disconnect the solar panels and qualify as pervious surface, the following conditions must be met:

1. Panel rows must be spaced at least as far apart as the panels are wide.
2. Panel rows must be approximately parallel to the land contour (less than 45° will count as parallel).
3. Above 5% land slope 3’ by 2’, No. 57 stone, level spreaders are required every 10 feet vertical or every 100 feet horizontal, whichever is closer. The level spreaders must be constructed along the contours.
4. Land slope cannot exceed 10%. Grading to achieve panels parallel to the contour or 10% slope is acceptable.

SWM Calculations Report

1. Please mark all areas that will meet the above criteria. In these areas, the panels can be completely excluded from further calculations. However, for NPDES reporting purposes, in the report and on a SWM plan sheet: list the land area that meets the above criteria, the total panel and other impervious surfaces within it, and state “treated by (N-2) non-rooftop disconnection.”
2. In areas that do not and will not meet these criteria, the entire panel must be counted as impervious surface and ESD and quantity control facilities provided as necessary.
3. The existing condition of unpaved ground can only be meadow or woods and the proposed condition will be open space. This will result in a need for quantity control. To address this, a meadow condition can be established under the panels. Carroll County has adopted a seed mix that will replicate meadow conditions under the panels. The establishment of meadow conditions will be considered a SWM practice. Maintenance obligations will be created, and bonding required.

Martin B. Covington III, PE
Carroll County Stormwater Management Program Engineer
March 6, 2023