

**NEW JERSEY DEPARTMENT OF AGRICULTURE
STATE SOIL CONSERVATION COMMITTEE
Chapter 251, PL 1975 as amended,
Engineering Policies- Technical Bulletin**

Technical Bulletin: 2011-[1.0]	Effective Date: May 9, 2011
Subject: Solar Array Applications	From: John E. Showler, PE

1.01 PURPOSE

To establish uniform guidelines for the review and certification of solar array projects.

1.02 SUMMARY

Ground-based solar arrays present unique conditions for application review as well as review for hydrologic runoff and subsequent stabilization in accordance with applicable Standards. Solar arrays have been declared ‘pervious’ under P.L. 2010, Chapter 4 for purposes of avoiding conflict with certain state regulations which prohibit or otherwise regulate development based on the degree of impervious cover proposed. This has been understood to include the impact to stormwater runoff in design computations as well. The following guidelines are established to provide soil conservation district personnel uniform direction for assessing such projects under N.J.S.A. 4:24-39, the Soil Erosion and Sediment Control Act.

Area of disturbance calculation.

For projects where all existing vegetation is to be removed, such as a fallow farm field or wooded area, or an area where no vegetation currently exists (such as an active farm field or barren land) the total area of disturbance shall be based on the entire footprint of the project, including trenching, transformer stations, staging areas, roadways and both panel rows and lanes between panels.

Stabilization.

Permanent, erosion resistant ground cover must be provided between panel rows and under panels as well as other disturbed areas. Establishing vegetation under panels may be difficult due to lack of sun and limited precipitation. Thought should be given to establishing vegetative ground cover prior to panel construction. Installation may be facilitated by phasing the grading and stabilization sequence of subsequent project areas to allow sufficient time to allow vegetation to become established prior to panel installation.

Runoff Calculation

All project runoff calculations must address the Standard for Offsite Stability. The project designer shall determine the most appropriate methods for computing and managing stormwater runoff. Changes to runoff rate and volume may be based on proposed surface conditions beneath the panels where expansion gaps between individual panels permit a significant amount of precipitation to reach the ground beneath the panels. For vegetated surfaces, runoff coefficients should not be less than “open space in good condition” or equivalent. Proposed runoff volumes and rates must be addressed in accordance with all appropriate Standards (eg., grass waterways, detention basins, offsite stability etc).