

Dundee Renewables Stormwater Memo



Stantec Consulting Services Inc.

Prepared for:
Kane County Development and Community
Services

September 26, 2024

Prepared by:
Kiley Gafner

Project/File:
193807004

1 Project Description

The Dundee Renewables (Project) is a 1.5-MW (AC) commercial solar energy facility in Kane County, Illinois.

1.1 Existing Conditions

The existing parcel is located on Boyer Road in Dundee Township, Illinois. It is an approximately 20-acre property and is currently used for cropland. The Project parcel contains two existing wetlands.

1.2 Proposed Improvements

The developed Project parcel will include a ground-mounted solar facility, an equipment pad and transformer, and a gravel access road. These Project components will be enclosed in a fenced area for safety and security measures. The total added impervious area is 0.44 acres. Existing cropland in the Project area will be reseeded with a pollinator friendly seed mix. Vegetative screening of the Project will be provided when adjacent to residences.

2 Stormwater Management

The increase in impervious coverage for the site is less than 25,000 sf. Per the Stormwater Management Ordinance, a detention storage facility is not required but a Category I Stormwater BMP (best management practice) is required on site. The BMP will be designed to reduce and treat one inch of rainfall over the increase in impervious area. The proposed stormwater BMPs are subject to change as the Project progresses. Culvert(s) will be installed under the access road as needed to provide conveyance for the natural drainage pathways that exist on site. A bioswale will be constructed adjacent to the proposed access road. The bioswale will be placed at the downslope location of the access road so that the stormwater is routed directly to the bioswale from the access road. A riprap settling basin will be placed at the northwest corner of the Project area. Stormwater runoff collects in this corner of the Project area, along with the existing wetlands in the Project parcel. Lastly, seeding of a pollinator friendly seed mix in the Project area is expected to improve the soil health and therefore is expected to improve stormwater infiltration and decrease runoff leaving the site.

