

**WEST SUSSEX COUNTY COUNCIL
FLOOD RISK MANAGEMENT CONSULTATION**

DATE: 3 August 2015

FROM: Kevin Macknay

**TO: Arun District Council
FAO: Mrs A Gardner**

SUBJECT: WA/34/15/PL

Installation and operation of a solar farm and associated infrastructure, including photovoltaic panels, mounting frames, inverters, transformers, substations, communications building, fence and pole mounted security cameras, for the life of the solar farm. Departure from the Development plan.

Land East of Lower Farm Yapton Lane Walberton

RECOMMENDATION:

Advice	☒	Modification	☐	More Information	☐
Objection	☐	No Objection	☒	Refusal	☐

West Sussex County Council (WSSCC), in its capacity as the Lead Local Flood Authority (LLFA), has been consulted on the above proposed development in respect of surface water drainage.

The following is the detailed comments of the LLFA relating to surface water drainage and flood risk for the proposed development and any associated observations, advice and conditions.

Current surface water flood risk based on uFMfSW for 30year and 100year events:	Low risk.
Comments: Current uFMfSW mapping shows the site to be at 'Low' risk from surface water flooding. It should be noted that the adjacent watercourses running to the east of the proposed development area are shown to be at 'High' risk from surface water flooding. This is due to the fact that the watercourse forms the topographical flow path for any surface water during periods of heavy rainfall. Any existing surface water flow paths across the site must be maintained. Reason: NPPF paragraph 103 states – 'When determining planning applications, local planning authorities should ensure flood risk is not increased elsewhere..' Therefore, a wholesale site level rise via the spreading of excavated material should be avoided. Any excavated material kept on site should be located in areas designed and designated for that purpose.	

Current ground water flood risk based on ESI Ground Water mapping:	Low risk / Moderate susceptibility.
Comments: The area of the proposed development is shown to be at 'Low risk' from ground water flooding on the current ESI maps. Based on the same mapping the current geology is shown as 'Moderate susceptibility' to ground water flooding. This means the general geology in the area may be suitable for infiltration / soakaways. Where the intention is to dispose of surface water via infiltration / soakaway, these	

should be shown to work through an appropriate assessment carried out under BRE Digest 365.

Ground water contamination and Source Protection Zones.

The potential for ground water contamination within a source protection zone has not been considered by the LLFA. The LPA should consult with the EA if this is considered as risk.

Is the proposed development is within or close to an existing Flood Zone, as defined by the National Planning Policy Framework (NPPF):

Yes.

Comments:

The eastern edge of the proposed site is shown to be within Flood Zone 3.

We recommend the developer / designer should consult and liaise with Environment Agency regarding development on this site.

Records of any ordinary watercourses or culverted watercourses within or in close vicinity to the site:

Yes.

Comments:

Current Ordnance Survey mapping does show ordinary watercourses running along the northern and eastern boundary of the proposed site. Ownership, maintenance responsibility and current condition should be checked for these ordinary watercourses prior to any development. Thus, reducing the risk of future flood risk. No development should take place within 5m of any watercourse.

Any works affecting a watercourse will need consent from Arun District Council.

Records of any historic ordinary watercourses or ponds shown to have once crossed or been in close vicinity to the site:

None.

Comments:

Records of any historic flooding within the confines of the proposed site:

None.

Comments:

We do not have any records of historic flooding within the confines of the proposed site. This should not be taken that this site has never suffered from flooding, only that it has never been reported to the LLFA.

Records of any historic flooding in close vicinity to the site and/or on the adjacent public highway:

None.

Comments:

We do not have any records of historic flooding in the close vicinity to the site and/or on the adjacent public highway. This should not be taken that this site has never suffered from flooding, only that it has never been reported to the LLFA.

Existing highway drainage in the vicinity to the site:	Yes.
Comments: The adjacent road, Yapton Lane, has a positive highway drainage system.	

Future development - Sustainable Drainage Systems (SuDs)

SuDs seek to mimic natural drainage systems and retain water on or near to the site, when rain falls, in contrast to traditional drainage approaches, which tend to pipe water off site as quickly as possible.

SuDs offer significant advantages over conventional piped drainage systems in reducing flood risk by reducing the quantity of surface water run-off from a site and the speed at which it reaches water courses, promoting groundwater recharge, and improving water quality and amenity. The range of SuDs techniques available means that a SuDs approach in some form will be applicable to almost any development.

Government policy set out in paragraph 103 of the NPPF expects LPAs to give priority to the use of SuDs in determining planning applications. Further support for SuDs is set out in chapter 5 of the flood risk Practice Guide.

Approved Document Part H of the Building Regulations 2000 establishes a hierarchy for surface water disposal, which encourages a SuDs approach beginning with infiltration where possible e.g. soakaways or infiltration trenches.

Where SuDs are used, it must be established that these options are feasible, can be adopted and properly maintained and would not lead to any other environmental problems. For example, using soakaways or other infiltration methods on contaminated land carries groundwater pollution risks and may not work in areas with a high water table. Where the intention is to dispose to soakaway, these should be shown to work through an appropriate assessment carried out under BRE Digest 365.

Provision for long-term maintenance should be provided as part of any SuDs scheme submitted to the LPA.

Kevin Macknay
Flood Risk Management Team