



'SAVE HARDY'S VALE' COMMUNITY GROUP. PROPOSED SOLAR GENERATING ARRAYS ON LAND AT NORTH DAIRY FARM, PULHAM DT2 7EA FULL PLANNING APPLICATION
[P/FUL/2021/01018](https://www.dorset.gov.uk/planning/P/FUL/2021/01018)

Case Officer: Rob McDonald
Dorset Council
Planning Team D, Development Services
South Walks House
South Walks Road
Dorchester
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10th March 2022

COMMENTS ABOUT 'RMA ENVIRONMENTAL' LETTER SENT TO BSR ENERGY ON THE 1ST MARCH

Dear Rob,

Our Interest

'Save Hardy's Vale' (SHV) is a community association¹. It was formed to protect 190 acres of productive agricultural land, of highly sensitive and valued landscape in the heart of the Blackmore Vale.

1. RMA Environmental prepared a Flood Risk Assessment (FRA)² to "**support planning application.**" [P/FUL/2021/01018](https://www.dorset.gov.uk/planning/P/FUL/2021/01018). This letter responds to most of the RMA comments, sent to BSR Energy on the 1st March,³ about the Hydro-GIS Hydrological

¹ SHV committee members are David Horrell, Catherine Langham, Mark Bentley, Peter Moise and Ian Bryan

² [RMA Environmental Flood Risk Assessment](#)

³ [RMA Environmental Letter 1st March 2022](#)

Review ⁴ (February, 2022) and the other representations we submitted to you and the Council's Flood Risk Management Team. Our comments generally follow the same order as the RMA letter.

Misleading claim

2. RMA suggest that: "The level of detail in their FRA is proportionate and meets the requirements expected of the Lead Local Flood Authority (LLFA), Environment Agency (EA) and planning policy." We believe, for the reasons set out here and in the SHV representations, that this claim is misleading. Our reasons include the following:

- The level of detail should be "proportionate" to the degree of flood risk on the site **and downstream**. The downstream effects are not fully considered,
- The NDF proposal is a major development, and therefore sustainable drainage systems should be used, as they should be for all developments in areas at risk of flooding,
- It appears unlikely that the proposed infiltration-based SuDS (swales) would be effective in preventing increased downstream flooding,
- The FRA does not present any calculations of the existing rates and volumes of total surface water run-off generated by the proposed development,
- In the absence of calculated surface runoff rates, the FRA cannot demonstrate how run-off from the completed development would be prevented from causing an impact elsewhere, or overall,
- The FRA does not identify and assess the characteristics of possible flood events, e.g., the type and source of flooding and frequency, depth, velocity and speed of onset,
- No reference is made to the Strategic Flood Risk Assessment when considering the potential future flood risks to the proposed development,
- No sustainable drainage systems are presented to control surface water runoff, and mimic natural drainage as closely as possible.

The Hydro-GIS Review and our Summary of its findings list further support for our view.

⁴ [Hydro-GIS Review](#) and [SHV Summary of findings](#)

Imperative tests

3. The Council's Strategic Flood Risk Assessment ⁵ states: "For proposed developments, it is **imperative** that Site-specific infiltration tests are **conducted early on as part of the design** of the development, to confirm whether the water table is low enough to allow for SuDS techniques that are designed to encourage infiltration". Without the results of these tests, it is impossible to be confident that the "outlined" drainage system would:
 - Comply with the Guidance, to avoid, reduce, delay and manage surface water flows,
 - Mimic the existing greenfield surface runoff volumes, and critically,
 - Reduce downstream flooding at the times of peak flow.

Flooding is a fact

4. RMA suggest that it was "Only following submission of the planning application was a photograph submitted by a local resident showing flooding at the site." We are not sure what the intention of this statement is. That the proposed Site floods is surely a matter of fact and common ground.
5. SHV have never suggested that development cannot take place within Flood Zones 2 and 3. However we have raised the issue of the flooding identified in the FRA at the Site entrance, which is a threat to life. Our main concerns throughout, have been about the management and control of surface water runoff and downstream flooding.
6. The Applicants have been discussing these serious flooding matters with local residents since 2019. Our initial concern was that the FRA failed to recognise, until September 2021, that there was even a need for sustainable drainage to manage the surface water. It was not until we, and others raised these matters, that the infiltration-based drainage system was suggested. Unfortunately, the proposal overlooked the warning contained in the FRA, that the predicted extremely low soil infiltration rates, indicate the swales would be ineffective, and that other means of SuDS need to be designed and proposed.
7. We raised the matter of the Temporary Maintenance Compound flooding simply to illustrate that the EA Flood Zone mapping appears to **underestimate** the level of flooding in the area of the proposed Site. We also highlighted, in our previous representations, the EA warning that the JFLOW mapping should only be used to

⁵ [Dorset's Strategic Flood Risk Assessment](#)

indicate where an Applicant should undertake a more detailed FRA. Yet the FRA continues to rely on the Flood Zone maps. We believe that the RMA claim that “The EA’s JFLOW data represents the best available information” is completely undermined by the EA warning and by the Hydro-GIS Review findings.

December’s consultation response

8. RMA make reference to the initial comprehensive response letter from the Flood Risk Management Team dated 3rd December 2021.⁶ Clearly there have been a number of changes to the Application, and additional representations, since the Officer’s detailed expert response last year. We hope that the information contained in the Hydro-GIS Hydrological Review (and the SHV comments) will now be considered in the Team’s current consultation response.
9. One thing that has not changed since December is the Professional Officer’s comment: “development, through(the) introduction of impermeable areas, has the potential to exacerbate or create flood risk, if runoff is not appropriately considered and managed as evidenced by a sustainable SW strategy.” At this time there is no ‘surface water strategy’. We are not reassured by the previous suggestion that this critical matter can safely be dealt with later (after the next flood!), by the attachment of conditions.

Professional judgement

10. Clearly there is a difference of professional judgement and opinion surrounding the matter of the appropriate statistical method used to estimate greenfield surface runoff. While we would favour the expert opinion expressed in the Hydro-GIS Review, we also point out that despite there being an identified requirement, no calculations have been presented by RMA that demonstrate what the estimated existing surface run off rates and time to peak flow from the proposed Site actually are.

New information

11. RMA suggest: “The Hydrological Review does not provide any new information which would affect the conclusions of the FRA”. We do not believe this is so. For example, the FRA:

⁶ [Flood Risk Management Team Letter Internal LLFA Consultation](#)

- Contained no detailed discussion on the unique catchment, water balance and flow regime.
- Lacks recommendations for any measures which should be implemented during the construction phase of the development and fails to discuss any of the potential impacts of the construction process.
- Has not undertaken any infiltration tests; therefore, it provides no information about whether infiltration would be appropriate. Despite this, the FRA recommendations to ensure that surface runoff from the developed site does not exceed the greenfield flow, continually promote the use of infiltration.
- The FRA failed to identify that proposed Site is in an area susceptible to particularly intense rainfall, as shown by historical data, and the rainfall mapping presented in the Hydro-GIS Review,
- The FRA failed to identify the flood risks to downstream properties and residents.

Widespread approach

12. RMA suggest “The Hydro-GIS Hydrological Review fails to acknowledge the widespread accepted approach to solar farm drainage and flood risk by the EA and LLFAs”. This is simply not so. It is the “widespread approach” by the solar industry which is directly confronted in this particular case involving a hydrologically unique Site. The Hydro-GIS Review and the SHV representations make the point that the Cook and McCuen findings simply cannot be relied on where the land has very low rates of infiltration, is saturated for 199 days a year, is at the focus of a catchment that has exceptionally high levels of rainfall, and subject to rapid discharge flash flooding. The Flood Risk Management Team letter of December 3rd makes reference to this matter, as does the Essex Council Solar Guidance,⁷ and our reference to the Mynydd Y Gwrhyd Solar Farm Drainage Strategy.⁸

⁷ <https://www.essexdesignguide.co.uk/suds/further-guidance/solar-array-development/>

⁸ [MyG-Appendix-7-1-Drainage-Strategy-Final.pdf \(awel.coop\)](#)

Different as chalk and...

13. Lastly, RMA cite the FRA in the Spetisbury Application (reference [2/2019/0850/PAEIA](#) Dorset Council), and suggests that it is “noteworthy that the Clive Onion’s (2019) FRA does not propose the use of swales”. Leaving aside that the Planning File referenced does not contain the FRA referred to, we are very surprised that RMA refer to a Site with such a dissimilar topography, ground and natural drainage characteristics. It could hardly be less like North Dairy Farm, which is nearly surrounded by EA Flood Risk Zones 2 and 3, at the focus of a nearly 40 sq. km catchment which, because of its topography, is subject to exceptionally high levels of rainfall, resulting in frequent, unpredictable and rapid discharge flash flooding over saturated impermeable clay ground. South Farm is completely different, and sits on undulating freely draining permeable upland chalk ground, remote from main rivers. According to the British Geological Survey there is an absence of watercourses or ditches, which confirms that the land is very permeable. The EA notes that there is: “The low risk from surface water flows which is consistent with the gentle slopes and permeable soil.” We do not believe that highlighting this reference, in any way, supports the point being advanced by RMA about the North Dairy Farm and the infiltration-based swale drainage, which is already recognised as an unsustainable, unworkable proposal.

No drainage strategy

14. For the reasons set out in this letter and the other SHV representations, and contrary to RMA’s assertion, we do not believe that the FRA is “proportionate” or that it meets **all** the requirements of either the Lead Local Flood Authority or the EA. Nor do we think that undertaking a full hydrological survey can (for the NDF Site) simply be dismissed as “unnecessary” or too “onerous”.
15. It is deeply concerning for the SHV group, and the downstream residents that the flood risks have been so clearly underplayed in the existing FRA, and that no effective surface water management system has been designed and supported with appropriate calculations; considering that we are so far into the process of the Application.
16. We fully appreciate that RMA are very experienced, having “prepared drainage strategies for over 20 large scale solar” developments. A number of flooding affected residents have asked why no drainage strategy has, so far, been presented that would demonstrable, and effectively meet the planning and other policy requirements that, surface runoff from the proposed development must not exceed that which exists, and that it should match or reduce downstream flooding. Could it be because RMA describe their FRA as being “**in support of the Application**”?

Yours sincerely

Ian Bryan

10th March 2022

For and on behalf of the Save Hardy's Vale community group⁹

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⁹ In collaboration with Mark Bentley, Peter Moise