

From:Lewis, Paul
Sent:14 Oct 2021 11:08:01 +0100
To:Shearer, Scott
Subject:PERMS 3004 (SEPA Reference) Planning Application 20/00796/FUL

CAUTION: External Email

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Dear Mr Shearer

Planning application 20/00796/FUL. Erection of dwelling house, land west of Causewayfoot Cottage, Wolflee, Hawick, Scottish Borders.

Thank you for consulting SEPA to let us know that additional information to address concerns about flood risk has been submitted in support of this planning application.

We must however **maintain our objection** to this planning application because the proposed development is likely to place buildings and people at flood risk contrary to Scottish Planning Policy. This is based on the current layout and design of the proposals. We advise that the following information is required to address our objection. Please see further details below.

- Definition of the functional floodplain within the proposed development site. This should be illustrated on a plan so it can be demonstrated that any built development lies outwith this flood envelope. Consideration should be made of a climate change allowance.
- The impact of a bridge blockage on flood levels at the development site should be considered.
- Confirmation that the small unnamed watercourse will not increase the flood risk to the site.

SUMMARY of FLOOD RISK ADVICE.

Flood Risk Advice

1. Previously in 2020 we **objected** to this development due to insufficient information. After reviewing the □Site Location Plan□, it was noted that the application site lay within the medium likelihood (0.5% annual probability or 1 in 200 year) flood extent of the SEPA Flood Map, and so may have been at medium to high risk of flooding from the adjacent Catlee Burn. In addition OS mapping indicated there was a small watercourse

running through the proposed site which may also have been an additional source of flood risk.

2. We stated that there was insufficient information to assess flood risk at this site and advised of the need for a detailed Flood Risk Assessment (FRA) to be undertaken in line with SEPA's Technical Flood Risk Guidance for Stakeholders- SEPA requirements for undertaking a Flood Risk Assessment (Version 10 July 2018). We advised that the FRA demonstrates the development accords with Scottish Planning Policy and the proposed house be located outwith the 0.5% (1:200 year) annual probability flood extent of the Catlee Burn and the small watercourse.
3. In addition the Scottish Borders Council Flood Risk Management Team (FRMT), (4.8.2020) also requested that :-

a Flood Risk Assessment (FRA) is undertaken to develop a 1 in 200 year plus climate change flood level to assess if the new development is at risk of flooding and if appropriate how much flood plain storage is lost.

The FRA should include:-

Flood extents and depths

Flow paths

Details of mitigation measures to reduce flood risk including details of compensatory storage.

Safe access and egress arrangements - emergency vehicles can drive through 300mm of water and this is what we deem to be safe access and egress

Ideally a Finished Floor Level (FFL) above the 1 in 200 year plus climate change level should then be developed with an appropriate allowance for freeboard (600mm) .

Assessment of Flood Risk and Definition of the Functional Floodplain.

4. To address this objection, the applicant has now provided the report Land west of Causewayfoot Cottage, Bonchester Bridge, Hawick. Flood Risk Assessment (FRA) (October 2020).
5. Within the FRA only topographic information is used to demonstrate no flood risk at the site. Spot heights around the site boundary, one on the site and some along both the south and north banks of the Catlee Burn are displayed on the Site Levels Plan (drawing MM2008/5A. 8.9.2020. FRA Appendix B).
6. It is displayed on this drawing the ground level at the house site is 161mAOD. To the west (upstream), bank levels on both sides of the Burn are 159mAOD. Immediately upstream of the site a spot level of 160mAOD is shown on the southern side of the Burn (ie. side closest to the development site) while a

level of 159mAOD is illustrated on the north side. But along the boundary of the site a level of 159mAOD is shown on both the north and south banks of the Burn.

7. It is stated in the FRA that the house site is a minimum of 2m higher than the adjacent Burn bank level and as levels on the opposite bank are between 159mAOD and 160mAOD, in a flood event any flow would be directed to the lower ground to the north and not towards the proposed house site.
8. But with the sparse spot levels presented on the Site Levels Plan and the same ground levels being illustrated on both banks along most of the length of the Catlee Burn, it is difficult to decisively concur with this conclusion. Possibly part of the site may flood and lie within the functional floodplain before flood waters spill towards the north away from the development.
9. Unfortunately no cross-sections were taken along this stretch of the Catlee Burn from south to north, to clearly demonstrate the variation in ground levels on either side of the Burn.
10. Therefore with the limited topography provided we are unable to assess the flood risk to the site and determine the extent of the functional floodplain of the Catlee Burn. We are unable to concur with the statement made in the FRA :-

Given the elevation of the ground in the location of the proposed dwelling, the risk of flooding from Catlee Burn under normal conditions is considered to be low .

11. We would also wish to state that we consider the flood risk associated with an extreme flood event ie. a 0.5% annual probability or 1 in 200 year return period. Such an event would not be considered as *normal conditions* .
12. In addition within Appendix F of the FRA there is a photograph of the Burn in spate {10.9.2020}. But without some assessment defining the frequency or extreme nature of this flood event, it is not possible to make any conclusions about the impact of this event on the site.
13. In general flood mitigation would only be achieved by avoiding the 0.5% annual probability or 1 in 200 year flood extent or envelope. A fundamental pillar of Scottish Planning Policy is **flood avoidance** , locating development away from functional floodplains and medium to high risk areas.

Assessment of Bridge Blockage

14. The northern site boundary immediately abuts the Catlee Burn road bridge. In the FRA no bridge dimensions are provided and used to assess the potential for blockage causing the backing up of flows during extreme events, resulting in possible increased flood levels.
15. It is stated in the FRA that due to the difference in ground levels, in the event of a blockage any excess flows would overtop the north bank, then spill over the road and return to the channel downstream. There is no assessment of the possible inundation onto the development site.
16. Therefore we would request that consideration is made of a possible bridge blockage in line with SEPA's Technical Guidance. This should also consider the boundary fence which extends across the Catlee Burn adjacent to the site, which could act as a potential barrier, trapping debris during high flow events.

Small watercourse

17. It is stated in the FRA that there is no flood risk associated with the unnamed watercourse which flows along the north-east site boundary, as it would follow the local topography and discharge directly into the Catlee Burn. We would request confirmation of this which may be in the form of photographs which clearly illustrate the nature of the watercourse channel and the changes in the local topography. If this is unclear, level information in the form of a cross-section(s) may be provided.

Assessment of Climate change.

18. We would request that in the estimation of any design flows an allowance for climate change is also included in line with the latest UK climate change predictions published in 2018.

Summary of Flood Risk

19. To summarise, we consider that flood risk to the site has not been adequately demonstrated. We would advise that the flood risk assessment be updated to specifically addresses the issues highlighted above :-
 - Definition of the functional floodplain within the proposed development site. This should be illustrated on a plan so it can be demonstrated that any built development lies outwith this flood envelope. Consideration should be made of a climate change allowance.
 - The impact of a bridge blockage on flood levels at the development site should be considered.
 - Confirmation that the small unnamed watercourse will not increase the flood risk to the site.
20. As indicated above for guidance we refer the applicant to SEPA's Technical Flood Risk Guidance for Stakeholders- SEPA requirements for undertaking a Flood Risk Assessment (Version 10 July 2018).
21. We would advise the applicant that no built development would be acceptable in the functional floodplain but a garden may be possible on the condition there is no change in current ground levels.

Caveats

1. The SEPA Flood Maps are indicative and designed to be used as a strategic tool to assess flood risk at the community level and to support planning policy and flood risk management in Scotland. For further information on the SEPA Flood Maps please visit:

<https://www.sepa.org.uk/environment/water/flooding/flood-maps/>

2. Please note that we are reliant on the accuracy and completeness of the information supplied at the time of providing our advice.

Please contact me if you would like to discuss or if you have any questions.

Yours sincerely,

Paul Lewis MRTPI

Senior Planning Officer

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At present I can only respond to agreed business critical work.

Further advice and guidance which may be of relevance is available on our website at <https://www.sepa.org.uk/environment/land/planning/>.

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