

Phone:01772 535020Email:Paul.blakeley@lancashire.gov.uk

Date: 12 May 2017

Dear Sir/Madam

APPLICATION CONSULTATION RESPONSE

Application Number:	3/2016/0974
Location:	Land west of Preston Road Longridge
Proposal:	Outline: Major: Residential development including the erection of 275 dwellings, a local neighbourhood centre, access arrangements and associated landscaping/wildlife infrastructure.

Thank you for inviting the Lead Local Flood Authority (LLFA) to comment on the above application. The Flood and Water Management Act 2010 sets out the requirement for LLFAs to manage 'local' flood risk within their area. 'Local' flood risk refers to flooding or flood risk from surface water, groundwater or from ordinary watercourses.

Comments provided in this representation, including conditions, are advisory and it is the decision of the Local Planning Authority (LPA) whether any such recommendations are acted upon. It is ultimately the responsibility of the Local Planning Authority to approve, or otherwise, any drainage strategy for the associated development proposal. The comments given have been composed based on the current extent of the knowledge of the LLFA and information provided with the application at the time of this response.

Lead Local Flood Authority (LLFA) Position

The Lead Local Flood Authority has **no objection** to the proposed development subject to the inclusion of the following conditions, in consultation with the LLFA:

Condition 1:

Reserved Matters to include an appropriate surface water drainage scheme: As part of any reserved matters application and prior to the commencement of any development, the following details shall be submitted to, and approved in writing by, the local planning authority, in consultation with the Lead Local Flood Authority.

- 1. Surface water drainage scheme which as a minimum shall include:
 - a) Information about the lifetime of the development design storm period and intensity (1 in 30 & 1 in 100 year + allowance for climate change – see EA advice <u>https://www.gov.uk/guidance/flood-risk-assessments-climate-changeallowances</u>), discharge rates and volumes (both pre and post development), temporary storage facilities, means of access for maintenance and easements where applicable, the methods employed to delay and control surface water discharged from the site, and the measures taken to prevent flooding and pollution of the receiving groundwater and/or surface waters, including watercourses, and details of flood levels in AOD;
 - b) The drainage scheme should demonstrate that the surface water run-off must not exceed the existing pre-development greenfield runoff rate for the corresponding rainfall event. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed.
 - c) Any works required on or off-site to ensure the adequate discharge of surface water without causing flooding or pollution (which should include the refurbishment or removal of any existing watercourses, culverts, headwalls or unused culverts where relevant);
 - d) Flood water exceedance routes, both on and off site;
 - e) A timetable for implementation, including phasing where applicable;
 - f) Site investigation and test results to confirm infiltrations rates;
 - g) Details of water quality controls, where applicable.
 - h) Details of finished floor levels.

The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the local planning authority.

Reasons:

To prevent flooding by ensuring the satisfactory storage of/disposal of surface water from the site.

- 1. To reduce the risk of flooding to the proposed development, elsewhere and to future users.
- 2. To ensure that water quality is not detrimentally impacted by the development proposal.

Although we are satisfied at this stage that the proposed development could be allowed in principle, the applicant will need to provide further information to ensure that the proposed development can go ahead without posing an unacceptable flood risk on or off site.

Condition 2:

Surface Water Lifetime Management and Maintenance Plan: No development shall commence until details of an appropriate management and maintenance plan for the sustainable drainage system for the lifetime of the development have been submitted which, as a minimum, shall include:

- a) the arrangements for adoption by an appropriate public body or statutory undertaker, management and maintenance by a Residents' Management Company
- b) arrangements concerning appropriate funding mechanisms for its on-going maintenance of all elements of the sustainable drainage system (including mechanical components) and will include elements such as:
 - i. on-going inspections relating to performance and asset condition assessments
 - ii. operation costs for regular maintenance, remedial works and irregular maintenance caused by less sustainable limited life assets or any other arrangements to secure the operation of the surface water drainage scheme throughout its lifetime;
- c) Means of access for maintenance and easements where applicable.

The plan shall be implemented in accordance with the approved details prior to first occupation of any of the approved dwellings, or completion of the development, whichever is the sooner. Thereafter the sustainable drainage system shall be managed and maintained in accordance with the approved details.

Reasons:

- 1. To ensure that appropriate and sufficient funding and maintenance mechanisms are put in place for the lifetime of the development
- 2. To reduce the flood risk to the development as a result of inadequate maintenance
- 3. To identify the responsible organisation/body/company/undertaker for the sustainable drainage system.

Informative 1:

Response does not grant permission to connect to the ordinary watercourse: For the avoidance of doubt, this response does not grant the applicant permission to connect to the ordinary watercourse(s) and, once planning permission has been obtained, it does not mean that land drainage consent will be given.

The applicant should obtain Land Drainage Consent from Lancashire County Council **before** starting any works on site. Information on the application process and relevant forms can be found here:

http://new.lancashire.gov.uk/roads-parking-and-travel/roads/flooding/alterations-to-awatercourse.aspx

Site specific comments:

Flood vulnerability:

It is evident that the proposed development will result in a change in Flood Risk Vulnerability Classification from Less Vulnerable to More Vulnerable under Paragraph: 66 of the Planning Practice Guidance.

Sustainable Drainage Systems:

<u>Paragraph 103 of the National Planning Policy Framework (NPPF)</u> and <u>Written</u> <u>Statement on Sustainable Drainage Systems (HCWS161)</u> requires that surface water arising from a developed site should, as far as it is practical, be managed in a sustainable manner to mimic surface water flows arising from the site prior to the proposed development, whilst reducing flood risk to the site itself and elsewhere, taking climate change into account.

The Lead Local Flood Authority encourages that site surface water drainage is designed in line with the <u>Non-Statutory Technical Standards for Sustainable</u> <u>Drainage Systems</u> and Planning Practice Guidance, including restricting developed discharge of surface water to greenfield runoff rates making suitable allowances for climate change and urban creep, managing surface water as close to the surface as possible and prioritising infiltration as a means of surface water disposal where possible.

Regardless of the site's status as greenfield or brownfield land, the Lead Local Flood Authority encourages that surface water discharge from the developed site should be as close to the greenfield runoff rate as is reasonably practicable in accordance with Standard 2 and Standard 3 of the <u>Non-Statutory Technical Standards for Sustainable</u> <u>Drainage Systems</u>.

Sustainable drainage systems offer significant advantages over conventional piped drainage systems in reducing flood risk by attenuating the rate and quantity of surface water run-off from a site, promoting groundwater recharge absorbing diffuse pollutants and improving water quality. Ponds, reedbeds and seasonally flooded grasslands can be particularly attractive features within public open space.

The wide variety of available sustainable drainage techniques means that virtually any development should be able to include a scheme based around these principles and provide multiple benefits, reducing costs and maintenance needs.

Prior to designing site surface water drainage for the site, a full ground investigation should be undertaken to fully explore the option of ground infiltration to manage the surface water in preference to discharging to a surface water body, sewer system or other means. For example, should the applicant intend to use a soakaway, they should be shown to work through an appropriate assessment carried out under Building Research Establishment (BRE) Digest 365.

The LLFA also strongly encourages that the developer should take into account designing drainage systems for exceedance working with the natural topography for the site. Should exceedance routes be used, the applicant must provide a site layout plan with these displayed, in line with Standard 9 of DEFRA's Technical Standards for SuDS.

Flow balancing SuDS methods which involve the retention and controlled release of surface water from a site may be an option for some developments at a scale where uncontrolled surface water flows would otherwise exceed the pre-development greenfield runoff rate. Flow balancing should seek to achieve water quality treatment as part of a treatment train and amenity benefits as well as managing flood risk.

Land Drainage Consent:

The proposals indicate that the applicant intends to carry out works on or near to an ordinary watercourse. Under the Land Drainage Act 1991 (as amended by the Flood & Water Management Act 2010), you need consent from the Lead Local Flood Authority if you want to build a culvert or structure (such as a weir) or carry out works within the banks of any ordinary watercourse which may alter or impede the flow of water, regardless of whether the watercourse is culverted or not.

As a minimum, the applicant will be expected to:

• Carry out studies of the existing culvert/watercourse condition and capacity;

- Undertake an examination of the downstream condition and implications of the development proposal, and;
- Restrict discharge rates so that the peak runoff rate from the development to the ordinary watercourse for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event should never exceed the peak greenfield runoff rate for the same event.

As per Lancashire County Council Consenting and Enforcement Policy, it should be noted that the Lead Local Flood Authority will generally refuse consent applications which seek to culvert an existing ordinary watercourse. This is in line with Environment Agency guidance on protecting watercourses:

The applicant is advised to contact the Flood Risk Management Team at Lancashire County Council to obtain Land Drainage Consent. The applicant is also reminded that construction within 8 metres of **any** watercourse is not advised as access for maintenance purposes is restricted and it has the potential to pose an undue flood risk to structures.

For the avoidance of doubt, once planning permission has been obtained it does not mean that land drainage consent will be given.

Surface water discharge:

The <u>Planning Practice Guidance (PPG)</u> establishes a hierarchy for surface water disposal, which encourages a SuDS approach:

Generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable:

- *into the ground (infiltration);*
- to a surface water body;
- to a surface water sewer, highway drain, or another drainage system;
- to a combined sewer

It is evident that the applicant intends to discharge surface water to an ordinary watercourse. Whilst other preferable runoff destinations should be considered first, namely into the ground (infiltration), it is noted from the Flood Risk Assessment (FRA) (Ref: 5861/R1 Rev A, Dated: November 2016, By: Lees Roxburgh Consulting Engineers) that infiltration may not be possible. Section 4.5.1 of the FRA indicates that ground conditions will not favour a ground percolation based drainage solution.

The Lead Local Flood Authority considers the proposed discharge point to be acceptable in principle, subject to further justification or evidence being provided at Reserved Matters. As a minimum, this should include test results to confirm infiltration rates for the site and sufficient evidence to demonstrate that a gravity drainage solution can be achieved. Failure to provide this evidence at Reserved Matters would likely result in an objection from the LLFA.

Flood Risk Assessment:

An important part of the planning application process is consideration of flood risk as detailed under Footnote 20 of Paragraph 103 of the National Planning Policy Framework (NPPF). This is facilitated through a site-specific FRA which is required for this development proposal as the site area is larger than 1 hectare. The LLFA has reviewed the details provided within the FRA (Ref: 5861/R1 Rev A, Dated: November 2016, By: Lees Roxburgh Consulting Engineers) and has the following comments to make:

- **Comment 1:** Although the LLFA is satisfied at this stage that the proposed development could be allowed in principle, the applicant will need to provide further information to ensure that the proposed development can go ahead without posing an unacceptable flood risk on or off site. The applicant would be expected to provide a formal surface water drainage strategy as part of any reserved matters application and prior to the commencement of any development. This must comply with Paragraph 103 of the National Planning Policy Framework and Standards 7, 8 and 9 of the non-statutory technical standards for sustainable drainage systems; March 2015. Failure provide an adequate surface water drainage strategy at Reserved Matters, would likely result in an objection from the LLFA.
- **Comment 2**: Whilst it is recognised that the application site lies within Flood Zone 1 (defined by the Planning Practice Guidance as having a low probability of flooding), the proposed scale of development may present risks of flooding on or off-site if surface water is not effectively managed for the lifetime of the development. There may also be an increased risk of flooding from other sources if the risks identified in the FRA are not effectively managed for the lifetime of the lifetime of the development this includes the risk of flooding from ordinary watercourses, pond features and ground water.

The LLFA would strongly recommend that any residential development is avoided within areas at risk of flooding, unless appropriate flood alleviation measures are put in place by the applicant to sufficiently reduce the risk of flooding to property and / or infrastructure. It is essential for any such measures to be included within the formal surface water drainage strategy for the site. It is also essential for the applicant to demonstrate in the formal surface water drainage strategy how the risks associated with surface water flooding and flooding from other sources (including existing watercourses, ponds and ground water) will be managed for the lifetime of the development. **Failure to adequately demonstrate this at Reserved Matters, would likely result in an objection from the LLFA.**

Comment 3: Whilst the FRA provides details regarding estimated predevelopment greenfield runoff rates, it is noted that these have been calculated using only basic information for the Longridge area; in fact the location used in Appendix 4 is approximately 950m north east of the development site. As such, further analysis and investigation will need to be carried out by the applicant before the LLFA is able to agree post development surface water runoff rates for the site.

It is also noted from Section 5.3 of the FRA that the applicant intends to provide additional land drainage to ensure that residual flows are safely conveyed through the development. The applicant is reminded that the peak surface water runoff rate from the total site area (18.84ha) for the 1 in 1 year and 1 in 100 year rainfall event must not exceed the peak greenfield runoff rate for the same event. The runoff volume from the total site area for the 1 in 100 year, 6 hour rainfall event must also not exceed the greenfield runoff volume for the same event. This is in line with Standards 2 and 4 of the non-statutory technical standards for sustainable drainage systems; March 2015. **Failure to adequately demonstrate this at Reserved Matters, would likely result in an objection from the LLFA.**

• **Comment 4:** Whilst it is evident from the FRA that various SuDS techniques have been considered for the site, the LLFA recommends for the applicant to also explore the use of other SuDS features in order to further improve the way in which surface water is managed on site. It should be noted that some SuDS features, for example rainwater harvesting and permeable paving used on driveways, **must not** be included as part of the hydrological calculations for the development proposal. This is because occupants may change or remove these features in the future - this could have the potential to increase surface water runoff which was previously unallocated for in the design of the sustainable drainage system. Where SuDS features such as rainwater harvesting and permeable paving are included in the hydrological calculations

of a development proposal, the local planning authority is advised to consider the removal of permitted development rights. It is advised that the Local Planning Authority take note of this and if minded to approve, an appropriate informative is attached to the formal Decision Notice.

If there are any material changes to the submitted information which impact on surface water, the local planning authority is advised to consider re-consulting the LLFA. The LLFA also wishes to be formally consulted on all subsequent drainage strategies for this proposed development.

Should you wish for further information or clarification to the contents of this letter please contact the case officer on the number provided on this letter.

Yours faithfully,

Paul Blakeley Flood Risk Management

