

Contact: Please contact the Local
Planning Authority

Date: 11 October 2022

Dear Local Planning Authority,

Thank you for inviting the Lead Local Flood Authority to comment on the below application.

PLANNING APPLICATION CONSULTATION RESPONSE

Application Number:	FUL/2022/0149
Proposal:	Full planning application for the erection of 200 dwellings and associated works.
Location:	Hollin Cross Farm Woodplumpton Road Burnley Habergham Eaves Lancashire BB11 3RS

The Lead Local Flood Authority is a statutory consultee for major developments with surface water drainage, under the Town and Country Planning (Development Management Procedure) (England) Order 2015. It is in this capacity this response is compiled.

Comments provided in this representation, including conditions, are advisory and it is the decision of the Local Planning Authority whether any such recommendations are acted upon. The comments given have been composed based on the extent of the knowledge of the Lead Local Flood Authority and information provided with the application at the time of this response.

Lead Local Flood Authority Position

The Lead Local Flood Authority wishes to **withdraw its objection** to the above application, which will be acceptable subject to the inclusion of the below condition(s), in consultation with the Lead Local Flood Authority. There are, however, **several outstanding concerns** regarding the proposed site layout which may need to be addressed before the application is decided upon by the Local Planning Authority. These are detailed in the 'site-specific advice' section of this letter.

Condition(s)



Condition 1 – Development is in accordance with the submitted Flood Risk Assessment

The development permitted by this planning permission shall be carried out in accordance with the principles set out within the site-specific flood risk assessment (14.12.21, 680259-R1(02)-FRA Issue 02, RSK).

The measures shall be fully implemented prior to occupation of the development and 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 in consultation with the Lead Local Flood Authority.

Reason

To ensure satisfactory sustainable drainage facilities are provided to serve the site in accordance with the Paragraphs 167 and 169 of the National Planning Policy Framework, Planning Practice Guidance and Defra Technical Standards for Sustainable Drainage Systems and Policy CC4 of the adopted Burnley Local Plan.

Condition 2 – Final Surface Water Sustainable Drainage Strategy to be submitted

No development shall commence in any phase until a detailed, final surface water sustainable drainage strategy for the site has been submitted to, and approved in writing by, the Local Planning Authority.

The detailed surface water sustainable drainage strategy shall be based upon the site-specific flood risk assessment submitted and sustainable drainage principles and requirements set out in the National Planning Policy Framework, Planning Practice Guidance and Defra Technical Standards for Sustainable Drainage Systems. No surface water shall be allowed to discharge to the public foul sewer(s), directly or indirectly.

The details of the drainage strategy to be submitted for approval shall include, as a minimum;

- a) Sustainable drainage calculations for peak flow control and volume control for the:
 - i. 100% (1 in 1-year) annual exceedance probability event;
 - ii. 3.3% (1 in 30-year) annual exceedance probability event + 40% climate change allowance, with an allowance for urban creep;
 - iii. 1% (1 in 100-year) annual exceedance probability event + 50% climate change allowance, with an allowance for urban creep

- b) Final sustainable drainage plans appropriately labelled to include, as a minimum:
 - i. Site plan showing all permeable and impermeable areas that contribute to the drainage network either directly or indirectly, including surface water flows from outside the curtilage as necessary;
 - ii. Sustainable drainage system layout showing all pipe and structure references, dimensions and design levels;



- iii. Details of all sustainable drainage components, including landscape drawings showing topography and slope gradient as appropriate;
 - iv. Drainage plan showing flood water exceedance routes in accordance with Defra Technical Standards for Sustainable Drainage Systems;
 - v. Finished Floor Levels (FFL) in AOD with adjacent ground levels for all sides of each building and connecting cover levels to confirm minimum 150 mm+ difference for FFL;
 - vi. Details of proposals to collect and mitigate surface water runoff from the development boundary;
 - vii. Measures taken to manage the quality of the surface water runoff to prevent pollution, protect groundwater and surface waters, and delivers suitably clean water to sustainable drainage components;
- c) Evidence of an assessment of the existing on-site watercourse(s) to be used, to confirm that these systems are in sufficient condition and have sufficient capacity to accept surface water runoff generated from the development.
- d) Evidence that a free-flowing outfall can be achieved. If this is not possible, evidence of a surcharged outfall applied to the sustainable drainage calculations will be required.

The sustainable drainage strategy shall be implemented in accordance with the approved details.

Reason

To ensure satisfactory sustainable drainage facilities are provided to serve the site in accordance with the Paragraphs 167 and 169 of the National Planning Policy Framework, Planning Practice Guidance and Defra Technical Standards for Sustainable Drainage Systems and Policy CC5 of the adopted Burnley Local Plan.

Condition 3 – Construction Surface Water Management Plan

No development shall commence until a Construction Surface Water Management Plan, detailing how surface water and stormwater will be managed on the site during construction, including demolition and site clearance operations, has been submitted to and approved in writing by the Local Planning Authority.

The details of the plan to be submitted for approval shall include for each phase, as a minimum:

- a) Measures taken to ensure surface water flows are retained on-site during the construction phase(s), including temporary drainage systems, and, if surface water flows are to be discharged, they are done so at a restricted rate that must not exceed the equivalent greenfield runoff rate from the site.
- b) Measures taken to prevent siltation and pollutants from the site into any receiving groundwater and/or surface waters, including watercourses, with reference to published guidance.



The plan shall be implemented and thereafter managed and maintained in accordance with the approved plan for the duration of construction.

Reasons

To ensure the development is served by satisfactory arrangements for the disposal of surface water during each construction phase(s) so it does not pose an undue surface water flood risk on-site or elsewhere during any construction phase in accordance with Paragraph 167 of the National Planning Policy Framework.

Condition 4 – Sustainable Drainage System Operation and Maintenance Manual

The occupation of the development shall not be permitted until a site-specific Operation and Maintenance Manual for the lifetime of the development, pertaining to the surface water drainage system and prepared by a suitably competent person, has been submitted to and approved in writing by the Local Planning Authority.

The details of the manual to be submitted for approval shall include, as a minimum:

- a) A timetable for its implementation;
- b) Details of SuDS components and connecting drainage structures, including watercourses and their ownership, and maintenance, operational and access requirement for each component;
- c) Pro-forma to allow the recording of each inspection and maintenance activity, as well as allowing any faults to be recorded and actions taken to rectify issues;
- d) The arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable drainage scheme in perpetuity;
- e) Details of financial management including arrangements for the replacement of major components at the end of the manufacturer's recommended design life;
- f) Details of whom to contact if pollution is seen in the system or if it is not working correctly; and
- g) Means of access for maintenance and easements.

Thereafter the drainage system shall be retained, managed, and maintained in accordance with the approved details.

Reason

To ensure that surface water flood risks from development to the future users of the land and neighbouring land are minimised, together with those risks to controlled waters, property, and ecological systems, and to ensure that the sustainable drainage system is subsequently maintained pursuant to the requirements of Paragraph 169 of the National Planning Policy Framework.



Condition 5 – Verification Report of Constructed Sustainable Drainage System

The occupation of the development shall not be permitted until a site-specific verification report, pertaining to the surface water sustainable drainage system, and prepared by a suitably competent person, has been submitted to and approved in writing by the Local Planning Authority.

The verification report must, as a minimum, demonstrate that the surface water sustainable drainage system has been constructed in accordance with the approved drawing(s) (or detail any minor variations) and is fit for purpose. The report shall contain information and evidence, including photographs, of details and locations (including national grid references) of critical drainage infrastructure (including inlets, outlets, and control structures) and full as-built drawings. The scheme shall thereafter be maintained in perpetuity.

Reason

To ensure that surface water flood risks from development to the future users of the land and neighbouring land are minimised, together with those risks to controlled waters, property, and ecological systems, and to ensure that the development as constructed is compliant with the requirements of Paragraphs 167 and 169 of the National Planning Policy Framework.

Reason for Pre-Commencement Conditions

Drainage is not only a material consideration but an early and fundamental activity in the ground construction phase of any development and it is likely to be physically inaccessible at a later stage by being buried or built over. It is of concern to all flood risk management authorities that an agreed approach is approved before development commences to avoid putting existing and new communities at risk.

The National Planning Policy Framework considers sustainable drainage systems to be important and states that they should be incorporated unless there is clear evidence that this would be inappropriate and, as such the Lead Local Flood Authority needs to be confident that flood risk is being adequately considered, designed for and that any residual risk is being safely managed. To be able to do this the Lead Local Flood Authority requires an amount of certainty either by upfront detail or secured by way of appropriate planning condition(s).

The proposed pre-commencement condition(s) allows for the principle of development to be granted and full detailed drainage designs to be conditioned for approval via a discharge of condition application which could be more favourable to developers in terms of less delay and less financial outlay early in the process. Non-acceptance of the pre-commencement condition could lead the Lead Local Flood Authority to object to the principle of development until all residual risk issues are safely managed.

The Lead Local Flood Authority asks to be consulted on the details submitted for approval to your authority to discharge these conditions and on any subsequent amendments/alterations.



Informative(s)

Informative 01 – Ordinary Watercourse (Land Drainage) Consent

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 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. This includes the infilling of the drains/ditches that cross the site.

- **Consent must be obtained before starting any works on site. It cannot be issued retrospectively.**
- **Sites may be inspected prior to the issuing of consent.**
- **Unconsented works within the Highway or Sustainable Drainage System may prevent adoption.**
- **Applications to culvert an existing open ordinary watercourse will generally be refused.**
- **Enforcement action may be taken against unconsented work.**

For the avoidance of doubt, once planning permission has been obtained it **does not** mean that Ordinary Watercourse Consent will be given. It is strongly advised that you obtain any required consent before or concurrently as you apply for planning permission to avoid delays.

You should contact the Flood Risk Management Team at Lancashire County Council to obtain Ordinary Watercourse Consent. Information on the application process and relevant forms can be found here:

<https://www.lancashire.gov.uk/flooding/drains-and-sewers/alterations-to-a-watercourse/>

Lead Local Flood Authority - Site-Specific Advice

The Lead Local Flood Authority has withdrawn our objection to the above application as the applicant has now provided greenfield runoff rate estimation calculations and pre and post-development runoff volume calculations, thus addressing the reasons for our objection as detailed in our response dated 15th August 2022. This is now acceptable subject to the pre-commencement planning conditions recommended above.

However, the Lead Local Flood Authority have **several outstanding concerns** regarding the above application, which should be addressed before and/or at the discharge of conditions stage. These concerns are detailed below.

1. Attenuation Basin

- a. **Groundwater Concerns** – The applicant proposes to locate the attenuation basin in an area with very high groundwater levels. Historic records of groundwater levels, or ground investigations, should be checked to ensure that during periods of high groundwater, the storage capacity of the basins is retained and that hydraulic connectivity between the surface water runoff and groundwater is acceptable from a water quality perspective. If a liner is used, there is a risk that the liner may 'float' during periods of high groundwater levels.



A seasonally high groundwater table may not always impede the proper functioning of the facility, but it can result in a muddy base that may be considered unattractive if not developed into a permeant water feature. This will impact the proposed use of the basin as an amenity space during times of low rainfall.

The applicant also proposes to locate a geocellular storage tank in the area of anticipated high groundwater. It is recommended that attenuation tanks are installed above the groundwater table, because groundwater pressure significantly increases lateral loads on the walls of the tank, and even a small defect in the surrounding waterproof geomembrane or pipe joints can result in groundwater entering the tank and filling the design storage volume. Where a storage tank has to be installed either close to or below the groundwater table, the possibility of floatation should be prevented by ensuring that the combined weight of the tank and the soil over the top is greater than the uplift buoyancy force due to the groundwater (with an appropriate safety factor (The SuDS Manual (C753) Section 21.4.1–Step 3). Alternatively, specialist geotechnical advice should be sought on possible anchor systems.

The Local Planning Authority must satisfy themselves that the proper functioning of the SuDS can be achieved for the lifetime of the development before agreeing to the site layout.

- b. **Ground Conditions** – The applicant proposes to locate the attenuation basin in the northern portion of the site, with excavations up to 1.3 m based on the existing topography and drainage layout plans. The ground investigations for this part of the site show the ground contains peat. The Lead Local Flood Authority would question the suitability of any construction in this part of the site, mainly the excavation of peat, which stores large volumes of water and carbon, as this may act to increase flood risk off-site. The Lead Local Flood Authority advise that the Local Planning Authority seek advice from relevant experts on the suitability of the proposed development given the ground conditions and high groundwater levels in this portion of the site.

Peat is an extremely valuable resource and should be protected given its benefits in mitigating flooding and climate change. More information is available at:

- <https://www.newground.co.uk/blog/for-peats-sake-how-peatland-can-manage-flood-risk/>
- <https://www.iucn-uk-peatlandprogramme.org/sites/default/files/2019-11/COI%20Peatlands%20and%20NFM.pdf>
- <https://www.iucn.org/resources/issues-briefs/peatlands-and-climate-change>

- c. **Amenity Value** – The applicant proposes that the SuDS basin will also form an amenity space in dry periods. While the Lead Local Flood Authority always encourages this approach in principle, we would question whether the ground conditions and design of the basin to accommodate all sized rainfall events,



including 'everyday' rainfall events would make this a suitable use for the proposed basin. It is likely, under current proposals, the basin will be consistently boggy, limiting its value as an amenity space.

- d. **Residual Risk** – The proposed attenuation basin is located upslope of the adjacent properties on Glen View Road. Naturally, excess surface water from this area follows the line of the ditch indicated in the topographic survey, flowing in a north-easterly direction away from the properties and towards the watercourse. However, the applicant proposes significant alteration of site levels which may mean the basin is located at a higher elevation than the adjacent properties, thus introducing a residual risk of flooding to these properties if the capacity of the basin is overwhelmed. This **may be contrary to paragraph 167d of the National Planning Policy Framework**.

The applicant must ensure that the adjacent properties are not subjected to an increased residual risk of surface water flooding at the detailed design stage through planning for exceedance and careful consideration of the final site levels. It must be ensured that the proposed access road does not constrict this flow path. While the Lead Local Flood Authority would much prefer to see this level of information up front, it can also be secured through our recommended pre-commencement planning conditions. It is ultimately the responsibility of the Local Planning Authority to decide the level of information required with any planning application submission.

2. Development within 8 m of Ordinary Watercourses

- a. The Lead Local Flood Authority expects no development to occur within 8 metres from the bank top of any ordinary watercourse. This includes the construction of structures such as walls and fences and any activity during the construction phases of development.

Construction within 8 metres of any ordinary watercourse is not advised as access for maintenance purposes is restricted and it has the potential to pose a detriment to water quality and undue flood risk to structures should flooding occur. This may be contrary to the National Planning Policy Framework.

On the proposed development, this easement should be provided around the proposed outfall and any watercourses that will be retained post-development, including the watercourse along the western boundary. Failure to provide an 8 m easement is **contrary to policy CC4 of the adopted Burnley Local Plan**.

3. Flows from Off-Site

- a. The layout of the development site and the SuDS must be designed so that any surface water that enters the site from off-site sources is conveyed safely around or through the site, without compromising the level of service of the proposed SuDS or introducing unacceptable additional risks on-site or downstream, in line with the National Planning Policy Framework and Planning Practice Guidance. Developments should be designed so that natural flow routes are not disrupted, and flows can pass through the development site as would occur in a pre-development scenario.



If this is not achievable, measures to manage these flows must be adopted to safely manage these within the site, for example, through the use of natural flood management techniques. Unattenuated discharges must be avoided to avoid increasing flood risk off-site.

Where run-off from off-site sources is drained and attenuated together with the site run-off, the contributing catchment must be modelled as part of the SuDS to take full account of the additional inflows.

Robust maintenance arrangements for any mitigation measures must be provided to ensure the development remains appropriately flood resilient and resistant for the lifetime of the development. Mitigation measures to manage flow routes, such as interception drains, must be located outside of private property boundaries in areas of public open space, in order to secure such maintenance.

4. Proposed Discharge Rate and Volume

- a. The proposed discharge rate of 48.6 l/s may need revising. This may result in a change to the size of the attenuation basin required.** The applicant has provided a greenfield runoff rate for the developable area of the site of Qbar 64.21 l/s (or 9.4 l/s/ha). This is acceptable to the Lead Local Flood Authority. The applicant must, however, pro-rata this rate based on the area that naturally drains to the proposed discharge point in the northeastern corner of the site to calculate a final discharge rate, otherwise, flows into this watercourse may be increased. A plan showing the catchment naturally contributing to this point should be provided to prove this. The proposed discharge rate may need to be reduced further depending on whether the attenuation is to be sized based only on impermeable areas or based both on permeable and impermeable areas.

While the Lead Local Flood Authority would much prefer to see this level of information up front, it can also be secured through our recommended pre-commencement planning conditions. It is ultimately the responsibility of the Local Planning Authority to decide the level of information required with any planning application submission.

For the avoidance of doubt, the Lead Local Flood Authority currently accept the following methods for calculating the discharge rate and surface water attenuation volume for a development:

For both methods, the greenfield runoff rate for the full site area must first be calculated using an approved methodology (IH124, FEH Statistical or ReFH2). The 'full site area' should exclude any areas of significant public open space, areas that contribute directly to the receiving watercourse(s) or areas that contribute to another catchment.

Either of the following approaches can then be applied:

Approach 1 (Full site area discharge rate and attenuation):



The SuDS is designed based on the full site area. A consistent approach is applied in line with the SuDS Manual (C753), whereby the 'full site area' is used to calculate the discharge rate and attenuation volume.

- The discharge rate from the site post-development is the same as the greenfield runoff rate from the full site area.
- The attenuation storage requirements must be based on the full site area, including both permeable and impermeable areas.
 - A volumetric runoff coefficient of 1 must be applied to the impermeable area.
 - Appropriate volumetric runoff coefficients for the permeable areas must be selected and justified by the applicant (the contribution of runoff from such areas may vary depending on factors including the site geology and soil type, site gradient, event size and antecedent conditions).
 - Allowances for climate change must be applied.
 - Allowances for urban creep must be applied (a 10% increase in the impermeable area only).

Approach 2 (Impermeable area only discharge rate and attenuation):

The SuDS is designed based only on the impermeable site area. A consistent approach is applied in line with the SuDS Manual (C753), whereby the 'impermeable site area' is used to calculate the discharge rate and attenuation volume.

- The greenfield runoff rate for the full site area is prorated based only on the impermeable site area to provide the post-development discharge rate.
- The attenuation storage requirements must be based only on the impermeable area.
 - A volumetric runoff coefficient of 1 must be applied to the impermeable area.
 - Allowances for climate change must be applied.
 - Allowances for urban creep must be applied.

The advantage of approach 2 is that the requirements under the Design and Construction Guidance are met, allowing for the system to be offered for adoption by an appropriate Water and Sewerage Company.

5. Protecting Natural Drainage Features

- a. Natural and existing artificial drainage features of sites must be identified and mapped so that they can be protected and integrated with the SuDS and wider integrated water management on the site to help reduce the causes and impacts of flooding in line with the National Planning Policy Framework. This can also help meet other environmental targets such as Biodiversity Net Gain.

The site layout should be designed around these features to ensure they are protected. Buildings should not be constructed over existing drainage features, including field drains, without specific alternative flow routing capacity being



provided. The Lead Local Flood Authority expect any development in the northern portion of the site to be avoided.

If the applicant wishes to discuss this response with the Lead Local Flood Authority, they can do so through our planning advice service. This service is offered to prevent any issues that could potentially affect your application and provide relevant up to date advice regarding surface water flood risk and sustainable drainage.

More information on our planning advice service is available at: <https://www.lancashire.gov.uk/business/business-services/pre-planning-application-advice-service/lead-local-flood-authority-planning-advice-service-for-surface-water-and-sustainable-drainage/>

What this response DOES NOT cover

This response does not cover highway drainage, matters pertaining to highway adoption (s38 Highways Act 1980) and/or off-site highway works (s278 Highways Act 1980). Should the applicant intend to install any sustainable drainage systems under or within close proximity to a public road network (existing or proposed), then they would need to separately discuss the use and suitability of those systems with the relevant highway authority.

The applicant is encouraged to discuss the suitability of any overland flow routes and/or flood water exceedance with the relevant highway authority should they have the potential to impact the public highway network and/or public highway drainage infrastructure (either existing or proposed).

Material Changes or Additional Information to this Planning Application

If there are any material changes to the submitted information or additional information provided after this Lead Local Flood Authority response to the Local Planning Authority which impact surface water, the Local Planning Authority is advised to re-consult the Lead Local Flood Authority. Please be aware this will be classed as a re-consultation with a full 21-day response time. Re-consultations should be sent to our identified mailbox.

Please send a copy of the decision notice to our identified mailbox.

Yours faithfully,

Phil Wadley

Lead Local Flood Authority

