

**Consultation Response from KC,
Lead Local Flood Authority**
2020/91468 Former North Bierley Waste Water Treatment Works, Oakenshaw, BD12 7ET
Discharge of conditions 5 (Phasing Plan), 11 (Sewer Overflow), 13 (Foul Water Drainage), 14 (Discharge of Surface Water), 23 (Flood Risk) and 24 (Disposal of Surface Water) on previous permission 2016/92298 for outline application for re-development of former waste water treatment works following demolition of existing structures to provide employment uses (use classes B1(c), B2 and B8)
**Date Responded: 23 June
2020**
**Responding Officer: Alex
Fraser**
Responding Ref: 0
Kirklees LLFA Summary

Kirklees LLFA **OBJECT** to the discharge of conditions 14, 23 and 24 due to lack of information within the documents uploaded.

Conditions relevant to Kirklees LLFA

Condition 14. No piped discharge of surface water from the application site shall take place until works to provide a satisfactory outfall, other than the local public sewerage, for surface water have been completed in accordance with details to be submitted to and approved in writing by the Local Planning Authority.

Reason: To ensure the provision of adequate and sustainable systems of drainage are employed, during and after the construction phase in the interests of amenity, environmental well-being and to ensure that the site is satisfactorily drained and avoids the risk of flooding from the proposed development in accordance with Policy BE1(iv) of the Kirklees Unitary Development Plan, PLP28 of the Publication Draft Local Plan and part 14 of the National Planning Policy Framework.

Condition 23. Detailed plans and particulars of the reserved matters shall include a 'Residual Uncertainty Assessment' in relation to flood risk to be submitted to and approved in writing by the Local Planning Authority. The assessment shall:

1. Use latest Environment Agency Guidance that seeks to develop uncertainty from known inputs.
2. Validate REFH2 hydrograph or where demonstrated that there is not possible increase Standard of Protection significantly to allow for the uncertainty posed by an unvalidated hydrograph (the LLFA recommend the use of the 1 in 1000-year flood extent given the minimal change.
3. Ensure that all areas of the site have a dry evacuation route that does not cross a Fluvial, Surface Water risk area or an area of flood routing.

Reason: In order for officers to make an informed assessment and to ensure satisfactory drainage of the site is delivered, in accordance with the National Planning Policy Framework and Policies PLP28 and PLP29 of the Publication Draft Local Plan.

Condition 24. Detailed plans and particulars of the reserved matters pursuant to conditions nos. 1 and 2 above shall include a scheme to dispose of surface water from the development. This scheme shall:

- i. Restrict discharge from the development to a combined discharge rate of 50.2/s for all rainfall events up to and including the 1 in 100-year event, unless otherwise agreed by the Local Planning Authority;
- ii. Adhere to the principles as set out in the drainage strategy from Curtins reference 65646-FRA-SB Rev 4;
- iii. Provide attenuation on site for the 1 in 100 year plus climate change event;
- iv. Using known flood levels perform simulations to ascertain the risk associated with a blocked

outfall and provide compensatory storage and high-level overflow within the drainage systems to manage this,

- v. Incorporate vegetated sustainable drainage techniques throughout the development wherever possible and practicable. Justification for alternatives should be by means of a viability assessment, and
- vi. Provide details of the adoption and maintenance of all surface water features on site.

The resultant drainage information shall inform the layout of the site and shall include appropriate stand-off distances between drainage infrastructure and buildings within the site and appropriate measures for flood risk management. None of the buildings shall be occupied until the approved drainage scheme, the flow restriction and attenuation works has been provided on the site to serve the development for each agreed phasing of the development to which the buildings relate and thereafter retained.

Reason: In this instance it is necessary that the layout of the site be interdependent with the existing and proposed drainage infrastructure. A comprehensive layout taking its form following investigation and consideration of on-site drainage systems and their relationship to adjoining off-site drainage networks shall be submitted to demonstrate that the site can be satisfactorily drained and to mitigate flood risk. This is to accord with Policy BE1(i) of the Kirklees Unitary Development Plan, PLP28 of the Publication Draft Local Plan and part 14 of the National Planning Policy Framework.

Technical Summary

Kirklees LLFA have provided the response below, broken down by each planning condition.

Condition 14

The applicant has solely submitted a series of Causeway Flow calculations for the site, coupled with plans showing the site's proposed drainage layout. The applicant's drainage consultant uses an M5-60 value of 17 in the production of the drainage design. Kirklees LLFA request the applicant review this, within the Kirklees District there is no location with an M5-60 lower than 18, as can be seen in the below extract from Flood Studies Report taken from a Kirklees LLFA report assessing a similar M5-60 proposal for another site (**annotations are not for this site**). There have been updates since the original FSR and software such as MicroDrainage have these maps incorporated so there is some interpretation differences but an M5-60 value of 17 has not been correctly provided anywhere else across the district.



Condition 23

No information has been provided within the documents submitted as part of this discharge of condition to demonstrate that flood risk has been satisfactorily incorporated. There is a Residual Uncertainty Assessment provided as part of a reserved matters application for this location, however, Kirklees LLFA cannot provide comments here for that document.

No updated information has been provided to demonstrate validation of the inflow hydrographs. In 2016, the Modelling report stated that there was no monitoring on the watercourse. Investigation did show that there was an EA model downstream of the motorway culvert that could be used to compare the discharge hydrograph from this model, against the inflow hydrograph to the EA model.

The applicant does not provide details of the flood evacuation plan and routes within this submission; therefore they cannot be assessed.

Condition 24

The applicant proposes to utilise attenuation basins but provides no information on their form, design or layout. This is insufficient for Kirklees LLFA to assess the proposals; all parts of the drainage network must be shown on plans. Kirklees LLFA also request that an overarching site plan showing all drainage is provided so it is possible to understand drainage routes across the site.

No simulations have been assessed to understand the impact of a submerged outfall. This is an essential component of the conditions imposed at previous phases and must be provided to understand risks of water backing up the network from the watercourse or the impact of flows not being able to discharge due to a submerged outfall. Kirklees LLFA anticipate that all outfalls to the watercourse will have flap valves to prevent water from the watercourse backing up into the drainage system.