Application No.:	2016/92298
Proposed Development:	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)
Location:	Former North Bierley Waste Water Treatment Works, Oakenshaw, BD12 7ET
Response Provided By:	Alex Fraser
Response Date:	05/03/2018
Revision Number:	01

LLFA Comments

The Lead Local Flood Authority (LLFA) is a statutory consultee on major planning applications. Major development being:
1. Residential Development: 10 dwellings or more or residential development with a site area of 0.5 hectares or more where the number of dwellings is not yet known.
2. Non Residential Development: Provision of a building or buildings where the total floor space to be created is 1000 square metres or more or where the floor area is not yet known, a site area of 1 hectare or more.

Summary

Reviewing the documents submitted we **have no objection to the application provided the following conditions are appended conditions** to overcome the following points-

Conditions

CONDITION

The development hereby permitted shall not be commenced until such time as a Residual Uncertainty Assessment has been approved in writing by the LPA in consultation with the LLFA. This assessment should-

i) Residual Uncertainty Assessment should use latest Environment Agency Guidance that seeks to develop uncertainty from known inputs.
ii) 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.
iii) The applicant should 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

To ensure that there is no unacceptable flood risk to users of the development.

CONDITION
Prior to commencement of development; a scheme to dispose of surface water from the development shall be submitted to and approved by the Local Planning Authority. 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 LLFA and 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.;

vi. Provide details of the adoption and maintenance of all surface water features on site.

REASON
To ensure the effective disposal of surface water from the development.

CONDITION

Prior to first occupation, details of the adoption and maintenance of all SuDS features shall be submitted to and agreed by the Local Planning Authority. A maintenance schedule which includes details for all SuDS features for the lifetime of development shall be comprised within and be implemented forthwith in perpetuity.

REASON

To ensure that the scheme to disposal of surface water operates at its full potential throughout the development's lifetime.

CONDITION
Prior to the commencement of development, details of the disposal of surface water from the development through the construction phase shall be submitted to and agreed with the Local Planning Authority.

REASON
To ensure the risk of flooding does not increase during this phase and to limit the siltation of any on site surface water features.

Technical Comment

Point 1

Validation of discharge from the site using observed data is most desirable method and could be done by working back up the catchment from a known point. The suitability of this approach is dependent upon the proximity of such a station and the quality of any model in this area.

Point 2

The use of Donor sites is an established principle in lumped hydrological models, however it is important to consider the selection of such sites with similar characteristics to this site. Ideally these sites will be in close proximity to this site and contain a flow monitor to validate and compare the ReFH2 outputs.

INFORMATIVE

We also offer the following informative.

Any areas of hardstanding areas (patio, driveways etc.) within the development shall be constructed of a permeable surface so flood risk is not increased elsewhere. There are three main types of solution to creating a permeable surface:

• Using gravel or a mainly green, vegetated area.

• Directing water from an impermeable surface to a border rain garden or soakaway.

• Using permeable block paving, porous asphalt/concrete.

Further information can be found here -
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7728/pavingfrontgardens.pdf

In addition, the development should explore disconnecting any gutter down pipes into rain water harvesting units and water butts, with overflow into rainwater garden/pond thus providing a resource as well as amenity value and improving water quality.