Consultation Response from KC Lead Local Flood Authority		
2019/93335 Land adj Dathan Tools, Mean Lane, Meltham, Holmfirth, HD9 5RU		
Outline application for erection of residential development		
Date Responded: 6 January 2020	Responding Officer: Aleksandra Tomczyk	Responding Ref: 0

Summary

Kirklees Flood Management and Drainage as the Lead Local Flood Authority (LLFA) acknowledge that this is an outline application with all matters reserved except for access. The applicant should be aware that any decisions fixed at this stage as part of any planning approval may have an impact on drainage arrangements in the future, therefore careful consideration should be given to what is being agreed.

Kirklees LLFA OBJECT to this planning application and require FURTHER INFORMATION is submitted on surface water management, including flow routing for the site.

Kirklees LLFA note that in the *Application Form*, the 'Access' box is ticked in the section 4 – Description of the development. If the application is a Reserved Matters application, then the above points should be noted as needing to be addressed in a 'Application for approval of reserved matters' application.

Further investigation into the application documents has revealed that Kirklees LLFA has not been instructed to treat this application as a Reserved Matters application

Kirklees LLFA also offer the below additional information and comments.

Kirklees LLFA records

The proposed development is located in the area of Meltham. The planning application is split into two rectangular plots of land – for the purposes of this response, they are referred to as north site and south site.

The north site is bounded by the following:

- To the north, by an unnamed open watercourse;
- To the east, by an open field;
- To the south, by an industrial property; and
- To the west, by bowling grounds and sports centre.

The south site is bounded by the following:

- To the north, by an open field;
- To the east, by an open filed;
- To the south, by Public Right of Way footpath and residential properties; and
- To the west, by an industrial property.

The site slopes from approximately 183mAOD in the north west corner of the north section, to approximately 171mAOD in the south east corner of the south section.

There is a number of waterbodies in the area, including:

- Balancing pond located approximately 15m north of the north site, within an existing estate;
- Unnamed open watercourse running east along the northern boundary of the north site;
- Meltham Dike located approximately 190m south of the south site, flowing east; and
- Unnamed open watercourse located approximately 240m east of the north site, flowing south east.

There is an existing network of sewers in the area, including an abandoned combined sewer running along the south eastern boundary of the south site, and surface water and foul sewers located approximately 30m south of the south site, along Pavilion Way.

The proposed development site is located within Flood Zone 1, according to the Environment Agency's *Flood map for planning*. It is also located within an area of very low surface water flood risk

(less than 0.1% chance of flooding each year), according to the Environment Agency's *Long term flood risk map*. Kirklees LLFA hold records of flooding in the area, mainly caused by blocked gullies. There is also record of sewer flooding – approximately 340m west of the site, along Mean Lane.
Kirklees records show that this location is likely to be unsuitable for infiltration SuDS.

Additional comments
The applicant is seeking permission to develop 21 residential properties in the area of Meltham.

Flood Risk Assessment and flow routing
As per the *Planning Practice Guidance*, this development does not require a site specific Flood Risk Assessment to be submitted as part of the planning application. However, the applicant needs to ensure that the design of the site takes into account any sources of flood risk, and consideration for any identified risks is accommodated in the design.

Kirklees LLFA require an analysis of flow routing for the site to be provided, including any inflows from offsite and any flows originating on site, such as drainage exceedance or gulley bypass. Short, intense storms may bypass road gullies, particularly on steep ground. The designed flow route should avoid property curtilages where reasonably practicable, utilising roads and open spaces.
Flow routing from attenuation should also be considered, in case of an exceedance event. The applicant should use *Designing for Exceedance* guidance to inform this design and safe disposal of any exceedance volumes.

Surface water drainage strategy
No information on surface water management has been submitted. The only information provided by the applicant includes site layout plan, long sections, and a topographic survey. While these can inform Flood Risk and Surface Water Drainage Strategies, they require further work and reports to be development.

Surface water discharge options should be assessed using the following hierarchy of discharge, as described in the *Planning Practice Guidance: Flood Risk and Coastal Change*, paragraph 080:

- Into the ground (infiltration) – Kirklees records show that the site area is likely to be unsuitable for infiltration features.
- To a surface water body – waterbodies in the area surrounding the proposed development have been listed previously in this response. Discharging surface water to an open watercourse located approximately 240m east of the site would be the preferred solution for this development, unless proven unfeasible.
- To a surface water sewer, highway drain, or another drainage system – as previously stated, there is a network of surface water sewers in the surrounding area. If the applicant proposes to discharge surface water into a public sewer, Yorkshire Water must be consulted.
- To a combined sewer – Kirklees records do not show any combined sewers in proximal to the proposed development site.

Discharge rate from all sites should be at pre-development greenfield equivalent run off rates. This rate must be calculated for only the impermeable/positively drained areas, not for the entire site.
For this application, the site appears to be greenfield, therefore we require the applicant to provide attenuation on site and discharge surface water from the development at greenfield equivalent rates. To account for these restricted discharge rates, the site will be required to provide surface water attenuation features. These can take many forms, as described in the CIRIA *SuDS Manual*.
The applicant must store the 1 in 30-year storm event within the designated surface water systems (swales, basins, pipes etc.) without flooding the development area (roads and plots/business areas). Above this, volumes generated by storms up to and including 1 in 100 + 30% climate change critical storm must be retained on site in a safe manner. This can include opportunities to store water in non-critical areas such as car parks or landscaped areas. This must not result in flooding to properties, evacuation routes or other critical areas that could pose risk to users of the development.

Kirklees LLFA require the applicant to provide the following information:

- Assessment of surface water discharge point using the hierarchy of discharge;
- Proposed surface water point and rate, including calculations;
- Preliminary drainage layout drawing;
- Preliminary hydraulic calculations;
- Details of proposed water attenuation feature (type, size, location) with associated calculations; and,
- Surface water drainage system maintenance and adoption information.