

December 2024

Water Framework Directive Assessment

Prickleden Mills, Woodhead Road, Holmfirth, HD9 2JU

Erection of 61 age-restricted apartments with ancillary accommodation including separate residents lounge and manager facilities and associated external works, including the erection of access bridge and riverside walk featuring two pedestrian bridges (within a Conservation Area)

Ref: 2568

ACUMEN
Designers & Architects

PREPARED BY ACUMEN DESIGNERS & ARCHITECTS LTD
Headrow House, Old Leeds Road, Huddersfield HD1 1SG Tel: 01484 546000

- 1.1 This assessment has been produced to support a planning application for the Erection of 61 age-restricted apartments with ancillary accommodation including separate residents lounge and manager facilities and associated external works, including the erection of access bridge and riverside walk featuring two pedestrian bridges (within a Conservation Area) at Prickleden Mills, Woodhead Road, Holmfirth, HD9 2JU.
- 1.2 This statement has been prepared in response to the Environment Agency's comments dated 21 July 2023, in which they express the need for a Water Framework Directive assessment to assess the impact of the proposed development on the River Holme and its ecology.
- 1.3 The **Water Framework Directive** (WFD) is European Union legislation under which Great Britain is obliged to meet targets for the ecological and chemical status of waterbodies over the course of the next 15 years. Any works which could affect the hydro-morphology, ecology or water quality of any classified waterbody requires an assessment under the WFD to demonstrate how any adverse impacts will be mitigated and where possible, the status of the waterbody enhanced in order to achieve the required good status targets.
- 1.4 The Directive aims for "**good status**" of all ground and surface water (rivers, lakes, transitional water and coastal waters) in the EU. All waterbodies have been assessed and are included within the local River Basin Management Plan (RBMP)
- 1.5 Any development scheme which has potential to threaten the qualitative or quantitative status of any waterbody is likely to require a WFD assessment.
- 1.6 Accompanying the planning application is a Biodiversity Net Gain and River Condition Assessment prepared by Collington Winter in November 2024. The River Condition Assessment explains:

"There is no new river habitat proposed for creation nor is there any proposed significant loss of river habitat as a result of the development proposals. Proposed crossings do not result in any change in the river condition as the proposed is not wide enough to result in significant shading and the watercourse is already culverted for much of its length. In addition, the implementation of enhancements to the river habitat are not considered to increase the habitat's condition beyond its current level (moderate). The development proposals will therefore result in no significant change to the number of river units within the site.

An area of river approximately 0.09km long will be enhanced with the removal of the weir, and provision of "softer" channel re-enforcements in place of the concrete culverts that extend significantly into the watercourse. The provision of gabions and "rickrack" would provide areas of marginal backwater, with a corresponding

slower flow, and allow for siltation, and establishment of plants and improved riparian habitats. Gaps between boulders would also allow for safe foraging and feeding locations for fish fry and prey.

The proposed plans show this area to be unplanted on the upper banks- providing scope to enhance the river bank and surrounds with further areas of wildflower meadow and area of riparian and semi-emergent vegetation which would improve the rivers suitability for insects, and aquatic mammals.

As the river is largely constrained, and re-enforced at the north-eastern end of the site, it is acknowledged that opportunities for enhancement are limited.”

- 1.7 The Environment Agency have published guidance for a Water Framework Directive Risk Assessment (6 April 2016). It explains that “*You need to show us that your activity supports the objectives of your local River Basin Management Plan (RBMP) or meets strict sustainability criteria.*”
- 1.8 The guidance then sets out that you must follow the guide if you’re applying for a flood risk activity permit to carry out one of the following activities on a main river:
- culverts
 - channel widening, deepening, straightening or realigning
 - impounding structure
 - bed reinforcement
 - sediment management (including dredging and de-silting)
 - bank reinforcement
 - embankments and set-back embankments (over 10m in total length)
 - by-pass channel (over 10m in total length)
 - bank reprofiling (over 10m in total length)
 - woody debris installation or removal (installed / removed over a length of 20m or greater)
 - flow deflectors (installed over a length of 20m or greater)
 - bridges & crossings
 - outfalls
- 1.9 From the activities listed above the proposed development only includes bridges and crossings.
- 1.10 The EA’s guidance sets out that the assessment must cover the receptors that are protected by the WFD. These are:

Physical habitat – the distribution and diversity of habitat including the physical processes that sustain and create new habitat. Physical habitat is essential for fish, macrophytes and invertebrates to live and thrive

- 1.11 As identified by the River Condition Assessment (extract above), The provision of gabions and “rickrack” would provide areas of marginal backwater, with a corresponding slower flow, and allow for siltation, and establishment of plants and improved riparian habitats. Gaps between boulders would also allow for safe foraging and feeding locations for fish fry and prey.

Water quality – particularly physico-chemical aspects of water quality - such as levels of dissolved oxygen, phosphorus and ammonia

- 1.12 The proposed development will have no impact on the water quality.

Fish and Eels

- 1.13 The proposed development will have no impact on Fish and Eels, except for the provision of safe foraging and feeding locations for fish fry and prey, as explained above.

Macrophytes - water plants visible to the naked eye, growing in the river

- 1.14 The proposed development will have no impact on Macrophytes

Invertebrates - insects, worms, molluscs, crustacea etc living on the river bed

- 1.15 The proposed development will have no impact on Invertebrates

Diatoms - microscopic diatoms (algae) found on rocks and plants

- 1.16 The proposed development will have no impact on Diatoms.

- 1.17 The EA’s guidance then sets out that the assessment must support the objectives of your local River Basin Management Plan (RBMP).

- 1.18 The River Home falls within the Humber River Basin District. At a more detailed level it falls within the ‘Source to New Mill Dike’ Water Body¹. This lists the following objectives, none of which are affected by the proposed development:

- **Ecological**
- **Biological quality elements**
 - Fish
 - Invertebrates
 - Macrophytes and Phytobenthos
- **Physico-chemical quality elements**

¹ <https://environment.data.gov.uk/catchment-planning/WaterBody/GB104027057600>

- Ammonia
- Dissolved Oxygen
- Phosphate
- Temperature
- pH
- **Hydromorphological Supporting Elements**
- **Supporting elements (Surface Water)**
 - Mitigation Measures Assessment
- **Specific pollutants**
 - Permethrin
- **Chemical**
- **Priority hazardous substances**
 - Benzo(a)pyrene
 - Dioxins and dioxin-like compounds
 - Heptachlor and cis-Heptachlor epoxide
 - Hexabromocyclododecane (HBCDD)
 - Hexachlorobenzene
 - Hexachlorobutadiene
 - Mercury and Its Compounds
 - Perfluorooctane sulphonate (PFOS)
 - Polybrominated diphenyl ethers (PBDE)
- **Priority substances**
 - Cypermethrin (Priority)
 - Fluoranthene
- **Other Pollutants**

1.19 For the wider Humber River Basin Management Plan, challenges for the water environment are published² (updated December 2022). This lists the following challenges:

Climate emergency

1.20 The proposed development will help reduce discharge into the River at times of heavy rain and flooding and will therefore help to mitigate the impacts of climate change.

Biodiversity Crisis

1.21 Whilst the proposed development will not impact upon the River, the proposed development will provide Biodiversity Net Gain. As identified by the River Condition Assessment (extract above), The provision of gabions and “rickrack” would provide areas of marginal backwater, with a corresponding slower flow, and allow for siltation, and establishment of

² <https://www.gov.uk/government/publications/river-basin-management-plans-updated-2022-challenges-for-the-water-environment/river-basin-management-plans-updated-2022-challenges-for-the-water-environment>

plants and improved riparian habitats. Gaps between boulders would also allow for safe foraging and feeding locations for fish fry and prey.

Physical Modifications

- 1.22 The proposed development will not result in physical modifications to the river.

Pollution from agriculture and rural areas

- 1.23 The proposed development will not result in pollution from agriculture.

Pollution from water industry wastewater

- 1.24 The proposed development will not result in pollution from water industry wastewater.

Invasive non-native species

- 1.25 The proposed development will not result in invasive non-native species.

Pollution from towns, cities and transport

- 1.26 The proposed development will not result in pollution from towns, cities and transport.

Change to water levels and flows

- 1.27 The proposed development will not result in changes to water levels and flows.

Chemicals in the water environment

- 1.28 The proposed development will not result in chemicals in the water environment.

Pollution from abandoned mines

- 1.29 The proposed development will not result in pollution from abandoned mines.

Plastics Pollution

- 1.30 The proposed development will not result in Plastics Pollution.

- 1.31 In conclusion we don't believe the proposed development will have a detrimental impact on the quality of the River Holme

- 1.32 Material to this planning application is the fact that there is an extant planning permission for this site. It has been recognised that there has been a lawful commencement of that development which comprises a legitimate fall-back position. The approved scheme includes similar arrangements in terms of the bridges over the river, however the previously approved scheme does not provide the same levels of flood mitigation or BNG and

therefore the current proposal is far superior in terms of meeting the aims of the Water Framework Directive.