

Planning Application Design and Access Statement

Ingbirchworth WTW Quality Undertaking

Prepared for:
*Yorkshire Water Services
Limited*

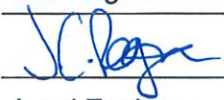
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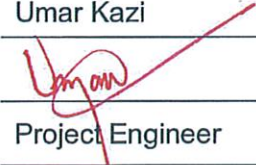
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AMENDMENT RECORD

Issue	Date	Details of Changes	Checked	Approved
A1	17/02/12	Fist Issue Approved	UK	BW

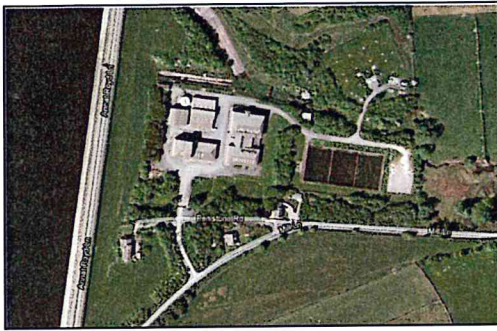
Note: Changes to the text in the latest version are denoted by a solid black vertical line in the margin.

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GENERAL SITE DESCRIPTION & LOCATION

Ingbirchworth Water Treatment Works is located west of the village of Ingbirchworth at the foot of Ingbirchworth Reservoir. The works is set in a rural surrounding at a low level next to the reservoir dam. To the north, the works is surrounded by greenfield and residential development. To the south and east, the works is bounded by greenfield whilst to the west is Ingbirchworth Reservoir. The red line site boundary is located within the works blue line boundary. The exact location is shown on the Site Location Plan (Drawing Number: L5209-2004) submitted as part of the planning application.



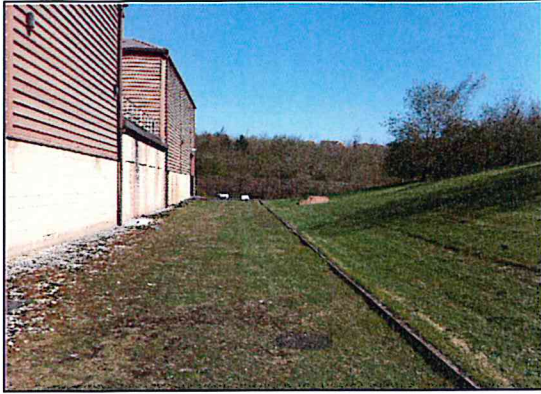
Ingbirchworth WTW Aerial Photograph



View of existing works entrance from Mill Lane

The existing works was constructed in the 1987 following redevelopment to include internal treatment facilities. The application site is located generally on made ground. The works is owned and operated by Yorkshire Water Services Limited (YWS) for the purpose of treating and supplying water to large areas of South Yorkshire. The works currently has a number of internal treatment buildings, pumping stations, open water bodies and below ground clear water tanks. The application site specifically is located on undulating grassed areas in the centre of the works adjacent to the southern boundary.

The existing works currently complies with the consents for water treatment applied to the works. In March 2014, the works will be required to comply with a revised quality consent comprising a reduced level of manganese. The works, with the addition of raw water from Rusby Wood WTW, requires upgrade to meet to revised consent requirements. In order to upgrade the works, a new manganese removal treatment building will be constructed with inter-stage pumping to maintain the hydraulic performance of the works. The treatment process comprises chemical dosing and filtration to remove manganese from the treated water. Process stages prior to and after manganese removal will be unchanged. By adding this additional process stage, YWS will be compliant with the revised consent by March 2014.



View of proposed location for treatment building

The existing works will remain operational throughout the construction period. Following successful commissioning of the new treatment process, all treated water will be permanently diverted through the new process before being pumped into the supply network for South Yorkshire.

SOCIAL CONTEXT

The improvements to the works to remove manganese from the treated water will improve the quality of the water being supplied to surrounding areas. The additional treatment process will ensure the revised consent stipulated by the Environment Agency will be met by March 2014

ECONOMIC IMPACT

There will be no economic impact on the local Community.

NATIONAL & REGIONAL POLICIES

The proposal will not impact on any known National or Regional Policies.

INVOLVEMENT OF COMMUNITY MEMBERS

Planning Officers and Local Residents are aware of the proposals.

- YWS issued letters to the local residents in Ingbirchworth explaining the construction works generally in the area which included works on the water treatment works site
- YWS met with Ingbirchworth and Gunthwaite Parish Council on the 1st August 2011 to discuss the proposals.
- YWS met with residents of the neighbouring properties to the site on 7th December 2011 to discuss the proposals and address any concerns they may have.

EVALUATION OF THE INFORMATION COLLECTED

Not applicable.

SCHEME JUSTIFICATION

USE:

The existing works currently receives raw water from Ingbirchworth Reservoir before treating and pumping clear water into the surrounding water supply networks for use by Yorkshire Water customers. The Environment Agency has revised the water quality consent for the treated water which will come into force in March 2014. In order to comply with the revised consent, a manganese removal treatment process will be incorporated into the process stream. The proposed development of the works includes the construction of a treatment building within the works boundary. The application site boundary is within the works operational boundary for the treatment building only.

AMOUNT:

The existing water treatment works site is approximately 3 hectares of which approximately 375m² has been identified for the new treatment building. This forms the red line application boundary. In order to construct the new building, any sub surface structures still intact from the historic works will be demolished and removed from site. The area for the treatment building has an undulating topography. Therefore, there will be a cut and fill operation to provide appropriate levels across the site. It is proposed for all material arising from this process and which is free from contamination will be used within the works boundary for landscaping. Full consideration for the reuse and disposal of materials will be considered in a comprehensive Site Waste Management Plan.

LAYOUT:

All construction activities associated with this planning application are within the operational boundary of the water treatment works. The site generally is congested with below ground services including process pipework, electrical cabling and site wide drainage. The location of the proposed treatment building has been determined based on the site constraints which include hydraulic performance and connectivity.

The manganese removal treatment building will be located adjacent to the existing treatment building alongside its eastern facade. The existing mounded ground in this area will be excavated down to formation level for the

construction of the building. The building will be designed to retain the ground around the perimeter and will be sympathetic to both the existing works buildings and surrounding off site buildings. The existing access road and hardstanding will be extended to service the treatment building.

In addition to the treatment building, the following items are included in the proposals to meet the requirements of the design:

- Extension to the site access road.
- Site wide cable ducts and draw pits.
- Site wide chemical dosing lines.
- Overflow pipework to the existing lagoons.

For further details of the site layout, refer to the drawings included in the planning application submission.

SCALE:

The new treatment building located adjacent to the existing treatment buildings will be sited to suit the existing hydraulic profile of the site. The building where possible will retain existing ground. However, generally the facade height to eaves will be 8 metres with the length of the building being 31.2 metres. The east and west facades will each be 12 metres in length. The roof will be a shallow pitched roof extending to a height no greater than 247.425 metres above ordnance datum.

Minor works will be carried out to the existing hardstanding and access road to provide appropriate access to the new assets. All external access points and internal movements around the site will be unchanged from the existing arrangements.

LANDSCAPING:

Landscaping across the site will be proposed to match the existing appearance. Where possible, retaining structures will adopt a natural approach with the use of reinforced earth banks and gabions.

The area surrounding the new treatment building will be profiled taking into account the topographical constraints of the development area and the internal site levels. Existing trees are located across the development area which will require removal as part of the works across the site. Replacement trees of a similar species will be planted to ensure there is no net loss in vegetation across the site.

For details refer to the drawings included in the planning application submission.

APPEARANCE:

The proposed treatment building will be designed to blend with the existing buildings on the site. The lower level up to the first floor storey height will have an external finish of fair faced concrete blockwork coloured as buff. The upper sections of the external walls will be finished with horizontal deep profile cladding panels coloured as terracotta. The roof construction will comprise an insulated deep profile roofing system coloured as Vandyke brown. All doors and windows will be mahogany in colour and primarily be timber with double glazing panels. Roller shutter doors will be coloured to match surrounding timber detailing. The images below show a collection of the existing buildings and the appearance proposed for the proposed treatment building.



Existing Building Finishes

ACCESS:

Access to the water treatment works will remain unchanged. The existing entrance to the works is from Mill Lane to the south through a controlled gate. The traffic flow to the works is not likely to increase, therefore, no additional measures will be specified. Access from the A659 onto Mill Lane is constrained due to the geometry of the junction and the width of the road. Therefore, during the construction period, an appropriate temporary traffic management plan will be implemented to ensure vehicle movements to and from the site do not have an adverse social and environmental impact on the surrounding area. This is likely to include restricting access to the site from Wellthorne Lane off the A659.