Planning Application
Design and Access Statement

Ingbirchworth WwTW
3rd Party Growth

Prepared for:

Yorkshire Water Services Limited

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AMENDMENT RECORD

Issue	Date	Details of Changes	Checked	Approved
A1	March 2011	Approved	GB.	

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

The Waste Water Treatment Works (WwTW) serving Ingbirchworth is located on the southeast side of the Village between the A629 Huddersfield Road and Ingbirchworth Dike. Access to the existing site is from the A629 Huddersfield Road. Refer to Location Plan (Drawing Number: N5018 2300) included in planning application submission.



Ingbirchworth WWTW Aerial Photograph



View of existing waste water treatment works site from Huddersfield Road

The existing site, originally constructed in the 1950's, is owned and operated by Yorkshire Water Services Limited (YWS) for the sole purpose of treating waste water flows from the Village. The existing site contains numerous buildings and structures that are normally expected on a site of this nature.

The existing WWTW has insufficient treatment capacity to deal with additional waste water flows from past and planned third party development in the Village. Due to the age and condition of the existing plant and equipment a new WWTW is planned. Space within the existing WWTW site boundary is limited and it is proposed that the new WWTW be constructed on adjacent YWS owned grassland.



View of existing waste water treatment works site



Proposed Ingbirchworth WWTW site from Huddersfield Road

The existing WWTW will remain operational throughout the construction period. Following successful commissioning of the new WWTW, the redundant plant, equipment and structures on the existing site will be demolished and the land returned to grass.

SOCIAL CONTEXT

The package treatment plant will have sufficient capacity to treat the increased load from past and future third party development within the Village of Ingbirchworth. It will provide a final effluent that meets the discharge consent stipulated by the Environment Agency.

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 met Planning Officers from Barnsley MBC on site on the 10th November 2010.
- Proposed new site entrance discussed with Barnsley MBC Highways and Road Safety.
- YWS met with Ingbirchworth Village Council on 22nd November 2010.
- YWS Community Engagement held a drop in event in Ingbirchworth Village Hall on 16th December 2010. The purpose of this event was to advise Local Residents of the need for the project, the scope of the proposal and the intended programme of works. A further event is planned once the Planning Application is submitted.

EVALUATION OF THE INFORMATION COLLECTED

Not applicable.

SCHEME JUSTIFICATION

USE:

The existing WWTW has insufficient treatment capacity to deal with additional waste water flows from past and planned third party development in the Village. The plant, equipment and structures on the existing site are nearing the end of their economic asset life. Space within the existing WWTW site boundary is limited and it is proposed that a new WWTW be constructed on adjacent YWS owned grassland.

The new site will be owned and operated by YWS for the sole purpose of treating waste water flows from the Village.

AMOUNT:

The new waste water treatment works site is approximately 2625m^2. The impact of this development will be offset by the demolition of redundant plant, equipment and structures on the existing site as an area of approximately 3000m^2 will be returned to grassland. For details refer to the drawings included in the planning application submission.

LAYOUT:

For reasons of practicality the proposed WWTW will be located as near as practicable to the existing treatment works where it can be conveniently connected to the existing incoming sewer and final effluent pumping station.

The new treatment works will be a three-stage, twin stream treatment packaged treatment plant: each stream consisting of:

- A primary settlement tank.
- A filtration tank.
- A secondary settlement tank.

The following is also required to operate and maintain the above:

- Access road and turning area.
- A site drainage pumping station.
- A tank for the temporary storage of surface drainage from the new access road and turning area.
- A kiosk building housing the power supply and controls for the package plant.
- Two kiosk enclosures housing the package plant blower equipment.

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

SCALE:

The new plant and equipment has sufficient capacity to deal with the increased demands from past and planned third party development up to the 2025 design horizon.

The proposed 4m wide site access road is sized to allow tanker and operator access to the plant and equipment. A turning area is incorporated to allow safe exit onto the A629, Huddersfield Road.

The proposed three-stage, twin stream treatment plant will be largely buried with only the access covers visible. The size of each item is as follows:

- The primary settlement tanks are 8.9m long x 2.88m wide x 3m high.
- The filter tanks are 4.8m long x 2.88m wide x 3m high.
- The secondary settlement tanks are 8.7m long x 2.88m wide x 3m high.

The site drainage pumping station will consist of a 2.4m diameter circular buried chamber. The open mesh cover to the chamber will be visible at ground level and will include a 1.1m high handrail around the access opening.

The proposed 5m diameter x 3m high surface water drainage tank is sized to temporarily retain surface water from the new access road prior to treatment.

The proposed 5m long x 3.5m wide x 2.5m high kiosk is sized to accommodate the control panel with a minimum of 1m clearance around the equipment for maintenance and operator safety.

Each of the two blower kiosks will be approximately 2m long x 1.35m wide x 1m high.

LANDSCAPING:

Due to the slope of the site re-profiling is required in the location of the proposed site entrance. Further re-profiling around some of the buried plant items is also required.

The redundant plant, equipment and structures on the existing site will be demolished and the ground re-profiled and returned to grass.

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

APPEARANCE:

The proposed site access road will be finished in concrete and have a 125mm high concrete kerb edge.

The proposed three-stage, twin stream treatment plant is buried with only the Glass Reinforced Plastic (GRP) covers visible. The covers are dark green in colour. A 1m wide concrete path will be constructed around each tank.





Typical Package Treatment Plants

The proposed surface water drainage tank will be constructed from glass fused to steel panels and will be dark green in colour. It will be set upon a concrete base with a 1m wide concrete path all round. The tank will incorporate an access ladder for access to high level electrical equipment.



Typical glass fused to steel storage tank



Typical Kiosk Building

The proposed kiosk building housing the electrical control equipment will be constructed from Glass Reinforced Plastic (GRP), with double access doors to the front and a single emergency access to the back. It will be dark green in colour and set upon a concrete base with a 1m wide concrete path to all sides.

The proposed kiosk buildings housing the package plant blowers will be constructed from Glass Reinforced Plastic (GRP), with hinged covers. They will be dark green in colour and set upon a concrete base with a 1m wide concrete path to all sides.



Typical Blower Kiosk



Typical Paladin Fence

The proposed site will be made secure by the installation of a 2m high paladin security fence and access gate. The panels will be 3m wide and consist of welded mesh. The 5mm diameter galvanized and plastic coated wire will be dark green in colour (RAL6005).

ACCESS:

Access to the new WWTW will be via a new site entrance off the A629 Huddersfield Road and will be limited to YWS personnel and their appointed Contractors only.

The existing site entrance and access road will be retained to allow access to an existing pumping station on the site. Again access to this will be limited to YWS personnel and their appointed Contractors.

Once operational the site will be visited approximately three times a week by YWS Operatives and fortnightly by tanker to remove sludge from the primary treatment tanks.

The location and layout of the proposed site entrance has been discussed with the Local Highways Authority. It is proposed that the existing traffic enforcement zone be extended further from the Village to improve sight lines and road safety. This has been discussed with the local Highways Authority (Sheridan Pashley and Peter Clayton) and details are shown on Drawing Number N5018 2000 which is included in the planning application submission.