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1.0 DEVELOPMENT DESCRIPTION AND PLANNING CONTEXT

Yorkshire Water proposes to construct a new sewer to resolve internal sewer flooding at Hoyle Mill Lane, Thurlstone, Penistone, South Yorkshire. Refer to Figure 1 below. The route of the new sewer is through fields to the north of the former mill site, now occupied by industrial units. It will be necessary to raise the ground level to protect the new sewer and to ensure that the landowner has access to the grounds beyond the new sewer. Refer to scheme drawings included in Appendix 1.

The landowner has planning permission (granted 2/4/13) to construct 12 No. residential units on the site of the existing South Yorkshire Home Improvements industrial site. A Flood Risk Assessment was prepared in connection with this development – refer to Appendix 2.



Figure 1 – Proposed location plan

2.0 DEFINITION OF FLOOD HAZARD

Planning Policy Statement 25 (PPS25) seeks to ensure that the risk of flooding is appraised, managed and reduced. Information obtained from the EA flood risk website confirms that the site is located within Flood Zone 2.

The flood risk assessment prepared for the residential development states that the highest recorded flood level occurred in 1965 to a level of 199.78m. The flood risk assessment included some modelling work that predicted a peak water level of 199.4m for a 1:100 year return period event including 20% allowance for climate change.

3.0 PROBABILITY

Flood Zone 2 is an area with a 1:1000 or greater annual probability of river or sea flooding in any year (>0.1%).

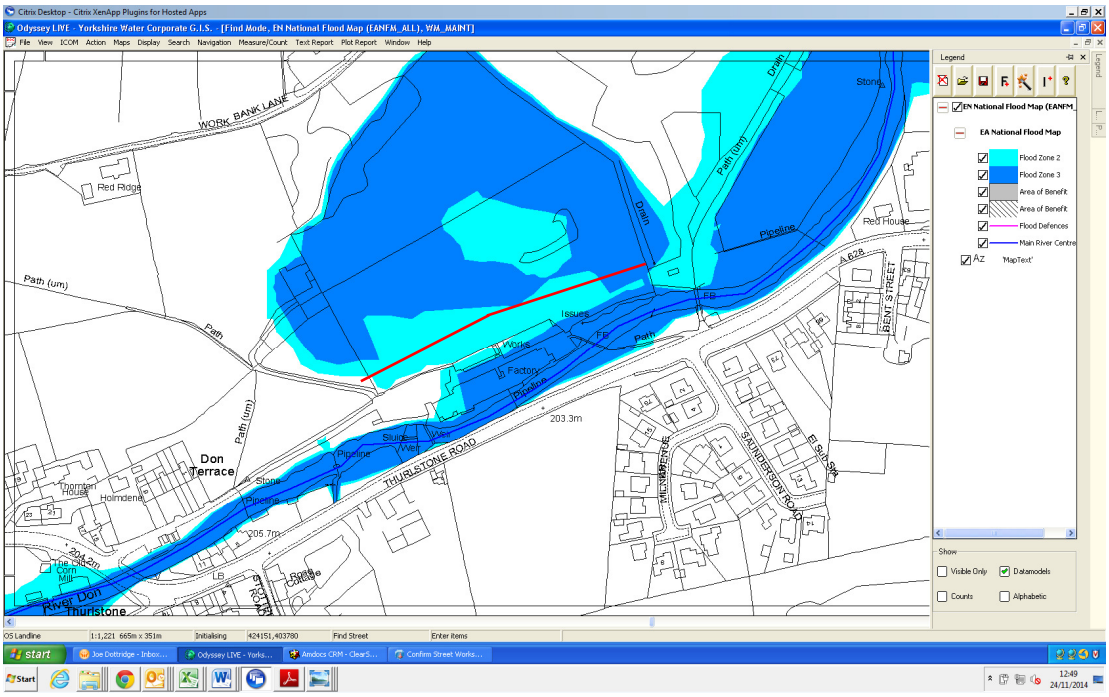


Figure 2 – Flood Risk Map superimposed with proposed sewer route in red (extract from Yorkshire Water Odyssey system)

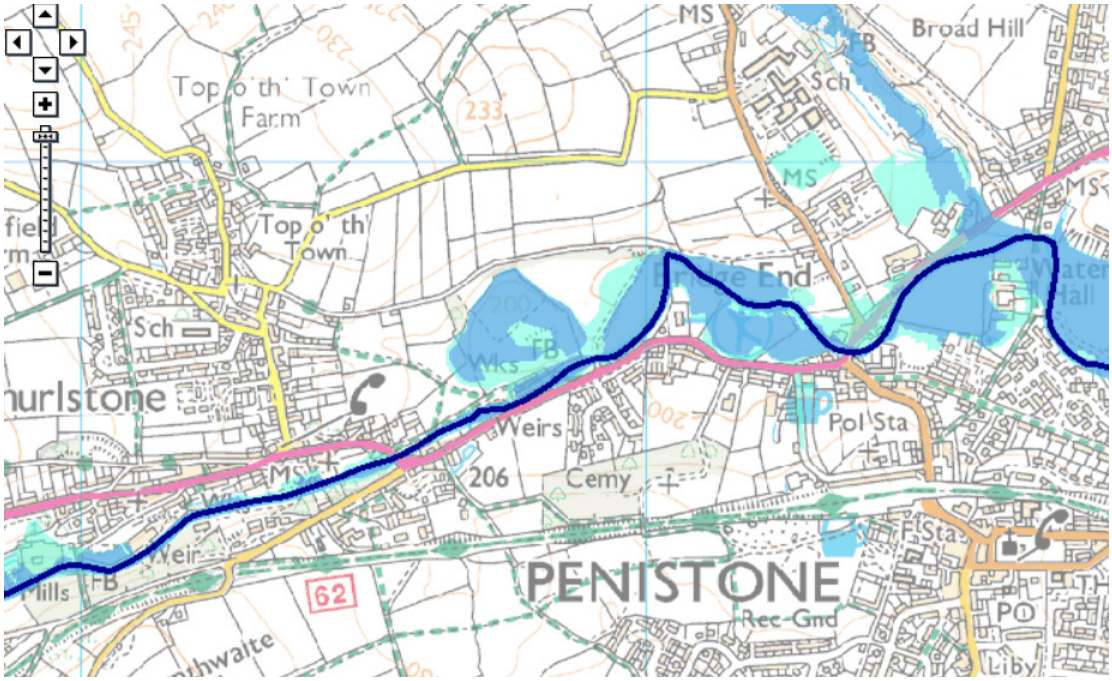


Figure 3 – Flood Risk Map (extract from Environment Agency flood risk mapping)

4.0 DETAILED DEVELOPMENT PROPOSALS

The new works include construction of a new 250mm diameter ductile iron sewer. Due to lack of ground cover, it will be necessary to import material to provide 500mm cover to the pipe.

5.0 FLOOD RISK MANAGEMENT

The extent of flooding has been derived from the flood mapping on the EA website (extract included as Figure 3).

Existing features upstream and downstream constrain the proposed levels for the new sewer; hence the proposed pipeline has shallow cover. The preferred solution is to import material to provide minimum cover to the new pipe. If the new pipe is laid above ground, it will hinder access to the land beyond.

The last recorded event that caused flooding at the mill in 1965 was measured at 199.78m. The existing ground level over the majority of the pipe route is above this level hence there is no loss of flood plain by raising ground levels to protect the pipe. Where the existing ground level is lower than the flood level, the imported material will result in a loss of floodplain volume of 46m^3. Due to the minimal loss of flood plain volume, and the benefit in reducing sewer flooding events, it is not proposed to provide any compensatory volume.

The proposed sewer will be safeguarded against flooding by providing sealed manhole covers on manholes in the floodplain, thus preventing inundation by flood water.

6.0 APPENDIX 1 – SCHEME DRAWINGS