

Water Pollution Risk

Land near Green Farm, High Lane, Ingbirchworth – Erection of agricultural livestock building.

The proposed agricultural building will be used to house pigs, the pigs will be contained within the building and will not roam and graze the fields, they will be bedded on a deep bed of straw, meaning that this is a slurry free system.

Pollution Mitigation Methods

These methods will ensure reasonable precautions are taken to prevent diffuse pollution from run off.

- Relocation of agricultural building from original location to ensure more than 6m distance between the site and 60inch raw watermain. No ground levels will be raised or lowered over the watermain and no inspection chambers will be built over.
- Concrete floor laid in agricultural building to ensure any mucky water is concealed within, this mucky water if there was to be any will then be soaked up by the deep bed of straw provided. This is a slurry free system, meaning that the manure produced within the shed is of a solid state. Which is then easily scooped up with the tractor and transported with the trailer. By being a slurry free system this significantly reduces the risk of contaminated run off.
- There will also be no muck/manure heap located on the proposed site, all muck that is removed from the shed will be immediately loaded into a trailer and moved to the storage heaps. These said storage heaps have been chosen as they are at least 100m away from any watercourses or watermains. Therefore, if any run off from rainwater was to occur then this cannot become a contamination issue due to the great distance. Please see diagram below (Figure 1) showing location of muck heaps.
- The narrow concreted yard which will be located at the front of the shed, where the tractor and trailer will enter the shed, will also be purposely sloped to ensure any rainwater can be directed into a pipe which will then remove the water into a soakaway.
- Between the agricultural building and the 60 inch watermain a conservation buffer strip will be created through the planting of permanent vegetation in order to protect water quality, by naturally slowing and filtering any run off that might occur. A combination of trees will be planted, willow (British native *salix alba*) and poplar (*populus nigra* 'italica') will be beneficial as they are quick to establish and have a dense root structure, therefore providing the filtering and stabilisation required. Please see below (Figure 2) a diagram showing location of conservation buffer strip. The conservation buffer strip will be located over 16m from the watermain, the trees will be planted in two rows which are 2ft apart to create a thick coverage/ screen and effective buffer.
- The agricultural building will also be fitted with a robust guttering system which will effectively catch the rainwater off of the roof, this meaning that this does not just fall onto the yard, which then could mix with any muck and create contaminated water which could run into the watermain.
- No muckspreading will be carried out in the field where the 60inch water main runs, therefore any manure and fertiliser spreading will be carried out more than 50m away from the watermain or any watercourses.

To summarise, there will be no free flowing slurry that can potentially run off into the watermain, there will also be no spreading of fertiliser or manure within 50m of the watermain. There will also

be no manure storage on the proposed site, instead this will be stored at least 100m away from any watercourses or watermains.

The only potential for run off into the watermain could be from rainwater landing on the yard and mixing with any muck that has been left from tyre marks/ spillages during transportation etc. This will frequently be cleaned up to reduce the chance of it becoming an issue. Also this potentially contaminated water will also struggle to run up the purposely sloped yard. In the unlikely event that it somehow managed to make its way up the slope, due to significant rainfall for example, then the vegetation buffer strip will help to slow and filter any run off.

I would be very grateful if you were able to lift your current objection, as we believe we have suggested a robust and effective variety of pollution mitigation methods which will significantly reduce any possibility of run off into the watermain.

Figure 1 showing location of muck heaps (orange circles) highlighting the fact that they are well above 100m from any water course/ mains.



Distance from closest muck heap to watermain = 240m (Google Earth measurements)

Figure 2 showing the location of the proposed shed (red) in relation to the water main (blue) and the planted vegetation (green), acting as a visual block and conservation buffer. The vegetation will be a combination of willow and poplar which will establish quickly and have an dense root system to provide the filtering required.



Using Google Earth I have accurately measured the following distances:

- Distance from proposed building to watermain = 29m
- Distance from conservation buffer to watermain = 16m

The conservation buffer strip will be planted parallel to the watermain at a distance of 16m away, the trees will be planted in two rows with a 2ft gap to allow them to effectively act as a buffer.