

Kindling Farm - amended prior approval application for water storage tank with pump cabinet – further information

On April 10th 2024 we were given prior approval to build 3 water storage tanks. This application is to amend that original plan to be for just one of those tanks with the addition of a small pump cabinet next to the tank. The tank is to house the pumps necessary to distribute the water from the tank to the fields/tunnel, an essential element of the whole farm irrigation system.

This amendment in the prior approval is needed for two reasons. Firstly the high cost of the water tanks (realised on receipt of the quotes to build them) means we can only afford to build one tank at this stage. Secondly we understood (from the supplier of the pump cabinet) that we didn't need planning permission for the pump cabinet due to its size and proximity to the larger tank, so huge apologies for this oversight on our part.

As we hope you will agree from the site and elevation plans and mocked up photo accompanying this application, the pump cabinet will not increase any negative visual (or other) impacts of the tank which we have already had prior approval for.

We have left the information below from the previous application as it is still relevant to this application (so that you don't have to search your files for it). This is the same as for the original submission due to the fact that tank and the pump cabinet will be located within that same area and due to the pump cabinets proximity to the tank we do not foresee any wider or different impact than that outlined in the original application. We hope this is sufficient information but please do not hesitate to contact us if you have any further questions.

Agricultural need for the tank and pump cabinet:

This proposal is for 1 water storage tank, with the capacity to store 1 million litres of water. The tank would be 18 metres diameter and 4.5 metres high and would cover a total ground area of 762 metres. Additionally it is for a cabinet to house the pumps that will distribute the water from the tank via the irrigation system to the fields and polytunnel.

This is for agricultural use and would be essential for our production of vegetables and fruit in an agroforestry system.

The success of this is dependent on our ability to irrigate the crops, which would not be financially possible at this scale using mains water. We had planned to apply for a water abstraction licence for this purpose, but were informed by the environment agency that the aquifer in this area (Halewood Groundwater area) is currently closed to new applications. There is a review taking place, so we may be able to secure a licence in the future, but we have been told that the review is likely to take 2 years and a licence would not be guaranteed at the end of it.

We have explored the possibility of water trading (paying someone with a current water abstraction licence) but the licensees (United Utilities and Everton Football Training ground) are using their licenced amount so this is not possible. Other local farmers we've spoken to haven't needed a licence as they produce animal feed and potatoes for crisps which have minimal irrigation requirements (they are all very supportive of our plans to produce fresh local food and looking forward to being able to eat it!).

We have sought professional advice from experienced fruit and vegetable growers as to the alternatives to having a water abstraction licence.

We have been advised that we need to be prepared for the worst case scenario - which would be no or very little rain at planting time and during the summer months (the advice being from April/May to July/August - 18 weeks) and we need to store enough water to keep the field scale crops lightly irrigated throughout this time to prevent crop failure.

The amount calculated and advised for our irrigation needs in this worst case scenario was 3 million litres. This is to produce vegetables on an initial 12 hectares of our land plus polytunnel growing.

To produce the seedlings for the fieldscale production and to extend the growing season we will need some polytunnel growing, which will need daily irrigation. We will be applying for planning permission for the polytunnels once we know if we have permission for the tank and pump cabinet which will enable irrigation (as there is no point applying for tunnels if we can't irrigate the crops inside).

Without water storage tank and pump cabinet, as we do not have a water abstraction licence, our farming system could not work.

Sensitivity of design in a Green Belt location:

Please see attached a mocked up photo to show what the view of the proposed tank and pump cabinet would look like. We have carefully considered the impact of the tanks and pump cabinet on the environment and community and have chosen the location to reduce the negative impacts:

- It is our own fields and farmyard that look onto the proposed site.
- There is no view from the public highway.
- We are putting in a new hedge across the field to the south of the proposed site that will help shield the view of the tank and pump cabinet from the south.
- The nearest public footpath to the south is half a kilometre and several fields and hedges away and we don't believe the tank and pump cabinet would be visible from there.

The purpose of the farm is to become a flagship of sustainable farming and so design and quality are important elements of this.

We are seeking a DEFRA Water Management Grant (hence the urgency of this application at this stage) to ensure design, engineering and materials best practice.

We have reviewed a number of alternative options to the tank and ruled out the construction of a lagoon, despite it being cheaper to construct, because of its size and physical impact.

We have sought advice, designs and quotes from a number of consultants and contractors on the location and design of the proposed tank and pump cabinet to ensure good quality design and materials.

Landscaping, a new hedge, additional tree planting, gateway location have all been used to minimise the visual impact of the proposed tank and pump cabinet.

Trees and biodiversity

As part of our extensive biodiversity work we have mapped the majority of the trees and hedgerows on the farm.

The hedgerow running adjacent to the proposed tank is relatively diverse with crab apple, damsons etc and so the tank location is set away from the hedge to minimise any adverse impact.

We have secured Countryside Stewardship for gapping parts of this hedge.

The biodiversity of the adjacent hedgerow will be enhanced by reinstating the old ditch.

We are in the process of implementing a hedge management plan for the entire farm, with a five year cycle of coppicing, gapping up and eventual hedge laying.

We have just planted a new 160m long hedge across this field helping to further shield the eventual tank and pump cabinet from view.

We will not be removing, cutting back or damaging any trees to install the tank and pump cabinet.

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We have planted a significant number of trees so far, including:

- 160m hedge across the field next to the proposed tank location.

- Gapped up the hedge between the farm and our immediate neighbour (Ash Lea)
- Creation of a 100m new hedge between the farm and our most easterly neighbours (this is the continuation of an existing hedge that stopped halfway down the field which are neighbours are very happy about).
- 800 fruit trees have so far been planted across the farm as part of our agroforestry system.

We will be planting additional trees as part of this proposal, including:

- Gapping up 30m of existing hedge that runs next to the proposed water tank.
- Planting hedgerow evergreen trees under the 10 large poplars trees planted as part of the farm's last planning application.

The work to create the concrete pad will not result in any significant damage to tree roots due to the shallowness of the work and the distance from large trees.

The concrete base will only be 30-40 cm in depth (the soil excavation for this will be 50 cm maximum). The farming methods of the previous owner involved ploughing to a greater depth than this and was right up to the edge of the field (there was no field margin).

Vehicles will follow a dedicated route, used for decades by the past farmers and so soil compaction and damage to roots will not result.

The large poplar trees that run along the site of the caravan parking area were planted as part of the original requirements for planning permission for caravan storage. However due to the species and their shape they offer limited shielding. Therefore over the next few winters we plan to strengthen this, keeping the popular trees and planting underneath them evergreen native species like holly, privet, yew, etc.

Risk of flooding:

We have considered this through the proposed location and the creation and reinstatement of an old ditch.

The tanks and pump cabinet will be located towards the top of our field and so any flood water would travel south away from the farmyard to the end of our field, where there is a ditch. There are no properties down hill from the tank and pump cabinet for at least a half a mile.

The nearest derelict building is uphill, 60m away in the farm yard. It stands approximately 4m above the base of the proposed tank location.

Some caravans are stored uphill of the tank, approximately 20m away on hard standing that is 1.5m above the field height. There is a substantial hedge, ditch and 4m raised bank between the tank and pump cabinet and caravan (the caravans are stored only, not residential).

The nearest occupied property is 120m away, uphill of the proposed tank location.

We are in the process of applying for DEFRA Catchment Sensitive funding to implement a farm wide sustainable drainage plan and this includes 40m of new ditch and reinstating the old ditch. This will be the route for excess water and mitigate any flooding concerns.

We have had advice and a farm visit from a DEFRA Catchment Sensitive officer and they have encouraged us to apply for a grant to improve a number of elements near the proposed tank location, this includes culverts for the reinstated ditch to improve water flow.

The urgency of this application is to enable us to secure a DEFRA water management grant to pay for the proposed tank and pump cabinet. The grant will enable a high specification: funding monitoring equipment, expert advice, and quality construction which will help reduce the likelihood of the tanks failing.