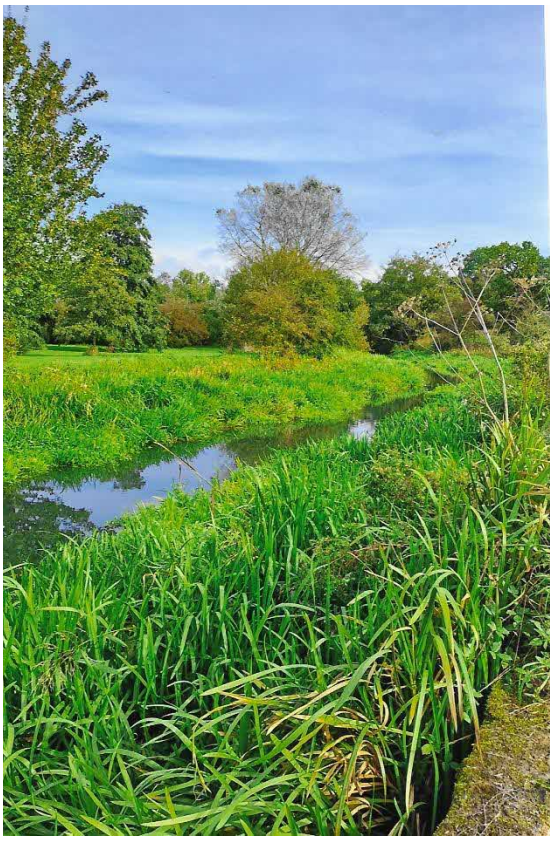
COYNE ENVIRONMENTAL

Waterford House

Vicarage Lane

Waterford

SG14 2PZ



PRELIMINARY ECOLOGICAL APPRAISAL

October 2023

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INTRODUCTION

Coyne Environmental has been instructed to carry out an Ecological Appraisal of Waterford House, Waterford, with advice from Alison Young Planning Associates, prior to the submission of a planning application to East Herts Council (EHC) for new equestrian facilities. The site is adjacent to the river Beane and Waterford Marsh. Being in the flood plain of the river it is part of a continuous ecological corridor with Waterford Heath, and extending south to Goldings's estate, Hertford and eventually part of the river Lea catchment.

It is proposed to undertake a Preliminary Ecological Appraisal (PEA) of the site. This will enable EHC to consider the impact of the proposal on wildlife. The authority can then discharge its legal obligations under the 'Conservation of Habitats and Species Regulations' (2018) and any `Outline Mitigation and Compensation Strategy' if required.

As this is a site beside the river Beane the study has taken account of Three Counties Flood Risk Associates, Flood Risk Assessment for Minor Developments, Waterford House, Vicarage Lane, Waterford, (2023) which has the following statement:

FLOOD RISK ASSESSMENT / DESK TOP STUDY. This report …. shows the site is in Flood Zone 3 but in its legend with its mapping it states that the threat is medium. ….. The flooding threat is from the River Beane which passes close to the site. The surface of the menege is permeable. The stable is not flood proof. Legend….The EA states ……. that there is a medium risk of flooding on the site. Surface water mapping shows the threat of flooding is low to very low. Groundwater flooding is unlikely to happen. The threat is low There is a threat from of the site being affected by reservoir flooding but the EA is on record as saying that this is

hardly likely to occur…..Therefore, the threat is low There are no private artificial sources of flooding in the area to threaten the site Flood Resilience measures … Sustainable drainage This should be handled by water harvesting. Over capacity water butts should be for rainwater off the roof of the stable. The water collected could then be used for keeping the stables clean and tidy and if necessary to keep water troughs replenished for the horses. In the event of exceptional conditions, the butts could overtop so a French Drain should be installed to take the overtopping water to a planted boarder for attenuation to take place….. CONCLUSION Although the flood mapping shows the site in flood zone 3 the EA does acquiesce to the possible flooding being in the "medium" category rather than any major threat



This study has also taken into consideration the Water Vole Survey (2020) Report by Greenlight Environmental Consultancy which has the following statement:

FIELD STUDY ….A habitat assessment was conducted on the 150m long tributary on site and it was surveyed in accordance with current guidelines (Dean et al., 2016), recording the number of sightings, burrows, latrines and feeding stations…. No signs of presence of water voles were recorded along the tributary on site. The profile of the banks along the tributary were very shallow in many places making them unsuitable for water vole burrows…..The river Beane is located to the north of the tributary connected by a sluice resulting a fairly fast flow into the tributary. The river was not surveyed for water voles due to the high level of water which could have obscured any potential signs. DISCUSSION AND CONCLUSIONS…. There are no signs of water vole presence along the tributary which the proposed bridge will cross. Although the river Beane to the north could not be surveyed, the area of works is more than 20m from the river and therefore would not have any impacts on water voles should they be present in the main river course. It is recommended that standard construction procedures are followed to avoid pollution of the water courses

As there was no evidence of water voles the access bridge has now been built. This will form part of the access road to the new stables from the main house. On this inspection no evidence of water voles was found.

I am a qualified Ecologist, Associate of the Institute of Ecology & Environmental Management with over 35 years' experience in the environmental field. This includes being a licence bat worker (Bat Licence 2015-15943-CLS-CLS). The survey of the site was carried out on the 5th October 2023 This was conducted in the day time, (16 c) variable conditions with light winds, dry

SITE

The site is in the village of Waterford on the outskirts of Hertford with the main settlement clustered round the common. The church of St. Michaels & All Saints, opposite the water meadows, and at the entrance to Goldings, was build 1871/2 and is noted for its fourteen Pre-Raphaelite stained- glass windows by a number of artists including Edward Burns -Jones and Ford Madox Brown with tracery by Philip Web



Waterford Marsh is 11 acres of wetland, maintained by cattle grazing where the Hertfordshire County Councils, Countryside Management Services (CMS) have produced a management plan to maintain this rare chalk stream ecosystem. Here kingfisher, little egrets, broad-bodied chaser, banded demoiselle and common darter can be found foraging along the water course with Daubenton bats emerging at night. In the nearby Waterford Heath, is a rare heathland ecosystem noted for its colony of Roman snail among other unusual species.

This watercourse is thus a rare habitat for Hertfordshire where due to de-naturalisation and excessive water extraction wildlife like otter, water vole, white clawed crayfish and brown trout have disappeared. While invasive Himalayan balsam and mink (affecting water vole numbers) are an increasing problem. A vulnerable habitat needing more protection from increasing human pressure.

This is a semi-rural countryside of small settlements with mixed farming, woodlands and restored gravel workings of Waterford Heath and Westmill with Goldings historic park and Hertford beyond. It is to the north of the Lea valley with growing pressure from metropolitan London.

AREA DESIGNATION

Management and protection of biodiversity within the UK planning system is set out through European and UK legislation. The Wildlife and Countryside Act (1981) is the main protection for wildlife. The Hertfordshire Biodiversity Partnership has developed a Biodiversity Action Plan (BAP) for the county, as a 50-year Vision for wildlife and natural habitats of Hertfordshire, along with the Hertfordshire Strategic, Protection of Badgers Act 1992, EU Habitats and Birds Directive and more general guidance, EU Biodiversity Strategy 2011-2020. These all are aimed at ensuring the environment of Hertfordshire and its wildlife is adequately protected. This study and report have also taken into account BS 42020 (2013) Biodiversity -Code of practice for planning and development. The Environment Act 2021 now has a mandatory require for biodiversity net gain (BNG) on developments. This will be used as the basis for determining additional mitigation. East Herts Local Plan 2011-2033 has also been taken into account.

There are no National Nature Reserves (NNR) within the study area but Waterford Heath is the nearest HMWT nature reserve noted for its open sandy habitat with specialist flora (wild strawberry) and fauna (grizzled skipper butterfly, Roman snail). There are numerous Woods including Goldings Wood and Balls Wood NR in the area and the Beane is a chalk stream, one of our rare chalk rivers.

CONDITION

A full Phase 1 Habitat Survey was not deemed necessary, as this is a site that appears to have limited ecology of significance. Therefore, an Ecological Walkover Survey was undertaken. However, if the survey identifies any wildlife of significance, measures will be taken as set out in the JNCC guidance Handbook for Phase 1 Habitat Surveys (2010) and CIEEM Guidelines (2017).

The application site is a house and grounds in the Classic style with other amenities (outdoor swimming pool) as well as an equestrian establishment. Currently there is additional fields on site to accommodate further stabling. This application field is adjacent to the river Beane to the east of Waterford House with further village houses beyond separated by a tall brick boundary wall.

The existing field is a rectangle of rough grassland with the river Beane and one of its tributaries on the north and west boundaries with rich riparian vegetation, including mature native trees, the housing brick wall to east and a native hedge line to the south. Ecologically the actual field would appear to be of minimal value but the boundaries have considerable environmental value. Beyond the site is

rural countryside, so that these boundaries will be acting as ecological corridors for wildlife to pass from one habitat to the next.

ECOLOGICAL ASSESSMENT

As the proposal is nowhere near Waterford House or any other of the associated buildings, an inspection of these was not required. Bats, being European Protected Species (EPS), are a priority for a standard PEA survey. However, as this will not be required in this study, no internal inspections have taken place. The vegetation in the application site was inspected, using binoculars, where the trunks of the mature willows and other riparian trees, were studied for holes (woodpecker), fissures etc. No evidence of urine, signs of faeces, entry scratches etc. were found. Therefore, in accordance with the Bat Conservation Trust (2012) Guidelines and having regard to the Conservation of Habitats and Species Regulations 2017, I conclude that the site does not contain evidence of bats on site

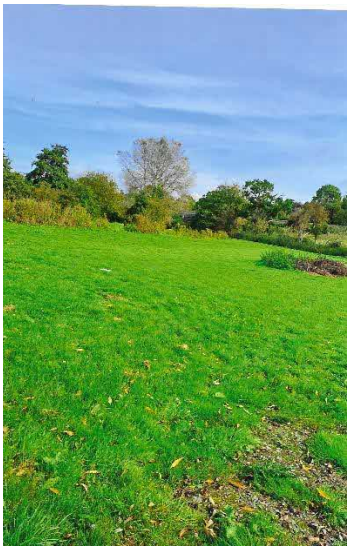
The current paddock is a rectangular field which appears to have been sown with commercial grasses, including *Festuca ovina, Agrostis tenuis* and *Lolium perenne.* A few patches of birds- foot trefoil (*Lotus corniculatus*), common hawkweed (*Hieracum vulgatum)* and clover (*Trifolium arvense*) were the only other species in the grass. There was no evidence of paths though the vegetation of the passage by wildlife. Tree pruning appears to have been undertaken recently and a pile of cut logs and brashings have been left in a heap near the centre of the field. It would thus appear to be a habitat of limited wildlife value.

The two boundaries with the river Beane and its tributary, however, are a diverse riparian habitat of marginal vegetation and water loving trees and shrubs. The main trees are willow (*Salix cinerea, S. caprea),* and alder *(Alnus glutinosa*) with an understorey of mainly hawthorn (*Crataegus monogyna*), dogwood (*Cornus sanguinea*) and field rose (*Rosa arvensis*). Along both sides of the fast-flowing streams, were reeds and rushes (*Calex spicata, Typha angustifolia, Sparganumus rectum,*) with (*Iris pseudocorus, Mentha aquatica, Myosotis scorpiodes*) and floating in the water Bur reed *(Sparganumus emergium*). All this forms a rich ecological corridor for wildlife to travel through. However, no evidence of animal runs through the vegetation (grazing lawns, latrines, burrows, all evidence of water voles) was found.

All the boundary hedge lines including the east and south side, were next inspected. These have more open vegetation with mature oaks (*Quercus robur*), lime (*Tilia platyphyllus*) mature hawthorn (*Crataegus monogyna*) and the remnants of an ornamental laurel hedge. This evergreen screen extends as a mature hedge line along the southern boundary. So, these two sides are of less ecological value than the north and west boundaries.

Using binoculars, the trees were inspected for evidence of nesting or nest building, although it is out of the main breeding season. Nothing was found. The vegetation, and the understorey and baselines of the trees and shrubs was inspected for any signs of animasl. The meadows would appear to be a site of value for small animals (voles and shrews), to use for foraging, burrows and traveling between habitats. No evidence of runs, droppings, excavations or latrines, was observed and water voles have already been discounted. Reptiles, like grass snakes and common lizards will also use this type of linear habitat. Inspections under possible refugia (stones, wood etc) was carried out but nothing was found or commuting runs noted.

The main opportunity for wildlife is probably beyond the site to the wider countryside and near the water`s edge. Within the boundaries there was limited refuges for small mammals like hedgehogs with no signs of mole activity though the area (moles were noted round the house). However, the areas detritus, in the form of the timber logs, are possible refuges as refugia or even hibernation sites. These were inspected and no evidence of animal actively was observed.



[redacted]other mammals like red fox, deer and rabbits probably forage and pass through the site but no evidence of foot prints or droppings were observed. As this is adjacent to the water meadows and open countryside beyond, the likelihood it is an ecological corridor. Wildlife will range well beyond the site to the wider farmland beyond

As the field is beside water, the likelihood of Great Crested Newts (EPS) and other amphibians like frogs and toads using the site, need to be considered. Great Crested Newts (GCN) require open areas of quiet water, like lakes and the Beane at this location, is a relatively fast flowing water course with further downstream, a gravelly base. Using the Great Crested Newt (GCN) Suitability Index the site has a negative value. No other significant ecological features were observed on

the survey. This evaluation has shown that although the site has some wildlife value, particularly within the riparian habitats, there are other areas of greater value beyond the site.

ECOLOGICAL EVALUATION

This ecological assessment indicates that it is a habitat with mainly common species and flora with no apparent significant ecology. No fauna was observed on the survey apart from a few birds passing through and evidence of animals using the site, was not found. Coyne Environmental has been instructed to carry out an Ecological Assessment of a paddock in the grounds of Waterford House and a PEA has been undertaken. The site survey and subsequent desk top study indicates that this is not in an area of high risk for the environment. The only area of concern is along the riparian margins of the river Beane and its tributary.

As the site is next to a waterway, it will be used for foraging including by bats. Therefore, on the precautionary principal, it is recommended that any lighting of the site, should be sensitive to this fact. Access lighting and in and around the proposed new stable, should be low level and flood lighting should not be considered for the proposal (menege) without future consideration and approval.

The vegetated boundary, are similar to a typical native hedge. No current or old bird nests were noted on the survey and the only avifauna observed were pigeons. If any further pruning is being considered this should not be carried out in the bird breeding season (Mar -Aug) in accordance with the Wildlife & Countryside Act (1981). Within the site and along the boundaries there was limited refuges for small mammals like hedgehogs, but there were no signs of mole activity though the area. If any fires are being considered on site of logs / brashings these should first be inspected to see that no wildlife (hedgehogs) are using these areas for refugia / hibernacula.

There are opportunities for pioneer species to flourish and allow insects such as bees and butterflies to find food (nectar) and shelter in the natural vegetation. The grass areas may also be used for insects to lay eggs (crickets), particularly in the more tussocky grasses. To allow this to continue, areas of the site (boundaries) should be left uncut for most of the year and only cut back two or three time (spring /autumn) to 500 mm. removing the arisings. This will retain herbs that are good for butterflies, bees and other invertebrates but stop invasive shrubs (hawthorn) and opportunists (nettle, bramble) to become established.

No other significant ecological features were observed on the survey. This evaluation has shown that although the site has some wildlife value there are other areas of equal or greater value in the adjacent water meadows and Waterford Heath nature reserve, where nature can find more advantageous habitats and foraging opportunities. Any proposal to change this with this proposal could be compensated with appropriate mitigation measures incorporating BNG

PROPOSAL

The application is to build a new equestrian facility on the existing field. The design of this is a new stable and tack room accessed from the existing bridge over the Beane tributary. A menage area will take up the whole of the field to the south and three new paddocks will be located adjacent to the access route.

As the site is on the edge of the village overlooking the countryside it is proposed that a landscape scheme, as part of the planning application, incorporate native planting in the form of boundary hedges and tree planting with accompanying wildflower seeding. This could be incorporated in any BNG requirement, as part of any external ecological mitigation. This can increase the biodiversity of the whole site in a sustainable design concept.

BIODIVERSITY NET GAIN

The Environment Act 2021 will have a mandatory require for Biodiversity Net Gain (BNG) on developments of a minimum of 10% from January 2024. If this is required for this scheme, it is proposed that the BNG should be undertaken as part of the planning permission, with suitable mitigation or enhancement required to meet the Statutory Net Gain. This would be incorporated into the ecological and landscape design proposals. As well as including native species of planting, and selected wild flora mixes, habitat creation in the form of bat and bird boxes and other features for fauna, could form part of the proposals.

CONCLUSION

Coyne Environmental has been instructed to carry out an Ecological Assessment of the site and a PEA has been undertaken. The has indicated that this is not in an area of high risk for any specific species or sensitive habitats. The only area of concern is along the river Beane and for bats (EPS), in the form of any lighting requirement. Although none were found on the survey, bats may be using the field, for foraging.

However, in my professional opinion, I assess that the proposal of a new stable and associated facilities at Waterford House, will have minimal impact on the overall ecology of the area. I conclude that, no further environmental studies are needed to satisfy the requirement for ecological /biodiversity assessments. On this basis, the proposal can, be submitted for determination by East Herts. Council

REFERENCES

Proposals Plan

Water vole survey map

Flood risk area map

Rev	Date	By	Description
-	27/07/23	DD	Concept Layout issued to client for comment
A	02/08/23	DD	Layout revised following client comment

Client	Mrs Katie Da'Prato
Project	Waterford House Private Equestrian Facilities
Drawing	Overall Site Plan Concept
Date	26/07/23
Drawn	DD
Scale @ A2	1:500
Project no.	1443
Drawing no.	03
Rev.	A

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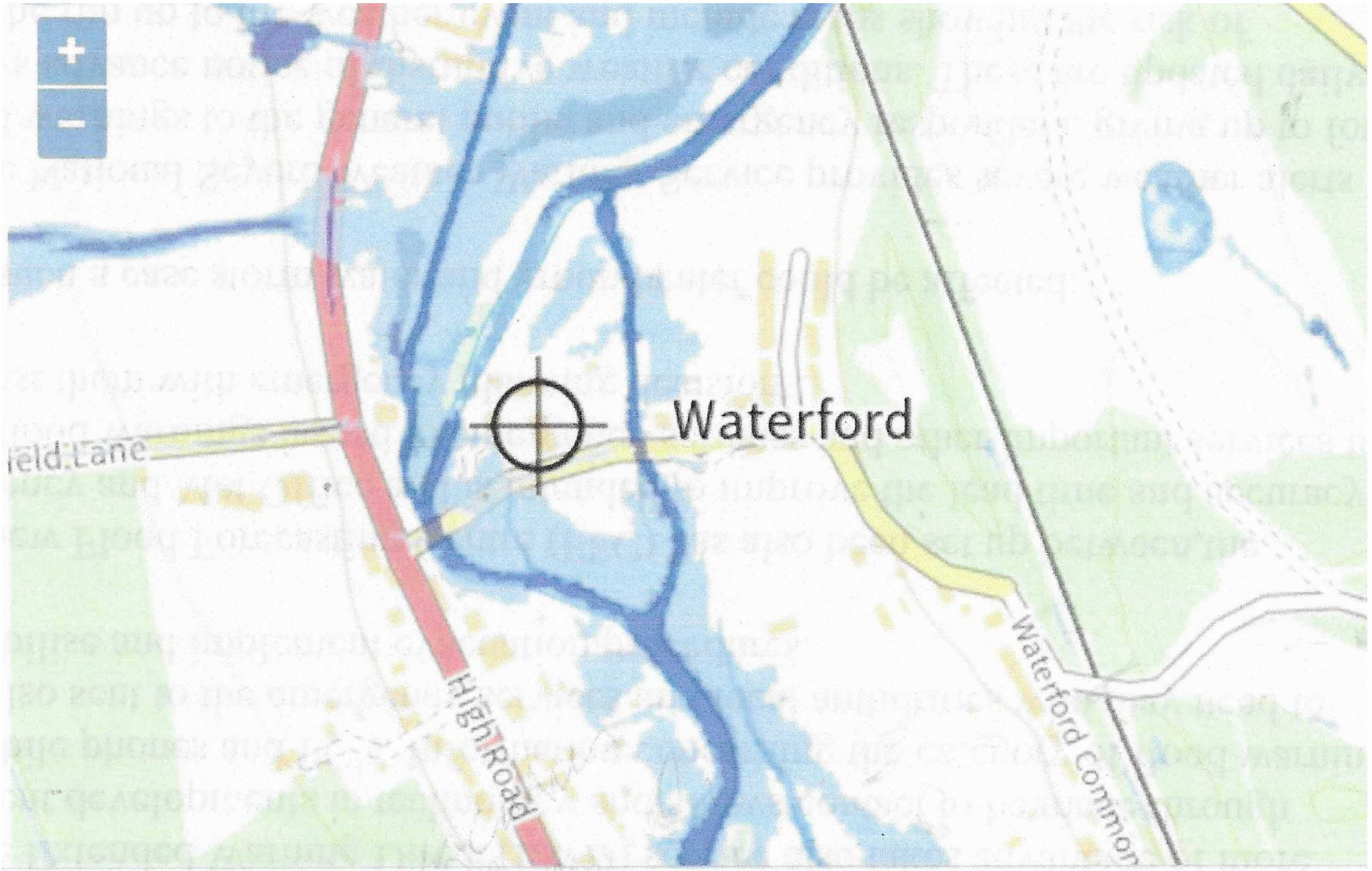
Figure 1 – Location of tributary surveyed marked in red. Location of proposed bridge indicated by the yellow cross.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