

Whitcher Wildlife Ltd. Wildlife Consultants.



INGBIRCHWORTH SEWERAGE TREATMENT WORKS.

PHASE I HABITAT AND PROTECTED FAUNA SURVEY.

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Date:- 28th September 2010.

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ETM4 - Internal Status		
Verified For Design Input	Site Status	Sub-Contract / Order Status
Yes	C For Construction	A Approved
		AN Approved as Noted
No	I For Information	R Rejected
		I Information only

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B. O'neill 27/10/10

Signed for ETM4 Date

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1. INTRODUCTION.

1.1. There are plans to carry out the construction of a new sewerage treatment works (STW) and outfall on the existing STW and on adjacent land.

1.2. Whitcher Wildlife Ltd has been commissioned to carry out a Phase I Habitat and Protected Fauna Survey of the site to establish whether there are any issues that may affect the proposed works.

1.3. The site survey was carried out on 14th September 2010 and this report outlines the findings of that survey and makes appropriate recommendations.

1.4. Appendices I to IV of this report provide additional information on specific species and are designed to assist the reader to understand the contents of this report.

2. SURVEY METHODOLOGY.

The survey area was thoroughly searched for evidence of badger (*Meles meles*) activity by looking for the following signs:-

- * Badger setts.
- * Badger latrines or dung pits.
- * Badger snuffle holes and evidence of foraging.
- * Badger paths.
- * Badger prints in areas of soft mud.
- * Badger hairs caught on fencing.

All watercourses within the survey area were thoroughly searched for evidence of water vole (*Arvicola terrestris*) activity by looking for the following signs:-

- * Water vole burrows.
- * Water vole faeces and latrines.
- * Water vole feeding stations.
- * Water vole runs.
- * Water vole prints in areas of soft mud.
- * Water vole lawns.
- * Predator field signs.

All watercourses within the survey area were thoroughly searched for evidence of otter (*Lutra lutra*) activity by looking for the following signs:-

- * Otter prints in soft mud.
- * Otter spraints.
- * Otter Holts.

All mature trees and derelict buildings were checked for potential bat roosting sites by looking for the following signs:-

- * Holes, cracks or crevices.
- * Bat Droppings.

The survey area was searched for the presence of great crested newt (*Triturus cristatus*) breeding ponds within 500m of the site.

3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. The National Biodiversity Network (NBN) Gateway website was consulted for records of protected species. There are records of great crested newts within a 10km radius of the site. None of the records occur within 500m of the survey area.

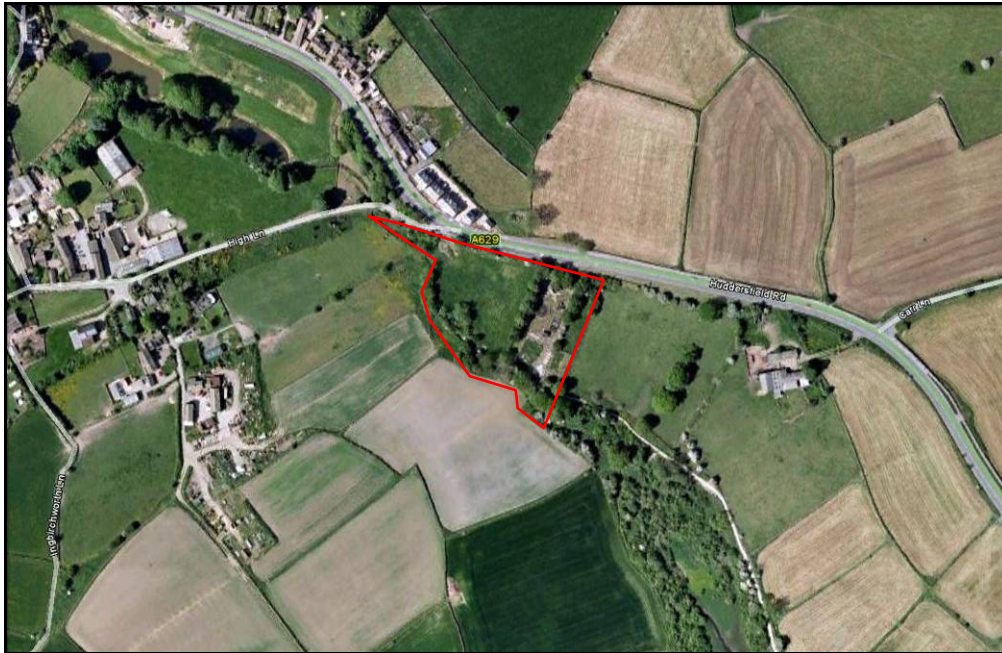
3.1.3. The MAGIC website was consulted for records of protected sites. There are no records of protected sites within the survey area.

3.2. Site Location.

3.2.1. The survey area is Ingbirchworth STW and the adjacent field to the west, which is located to the south of Ingbirchworth village. The survey area is shown within the red line on the aerial photograph below.



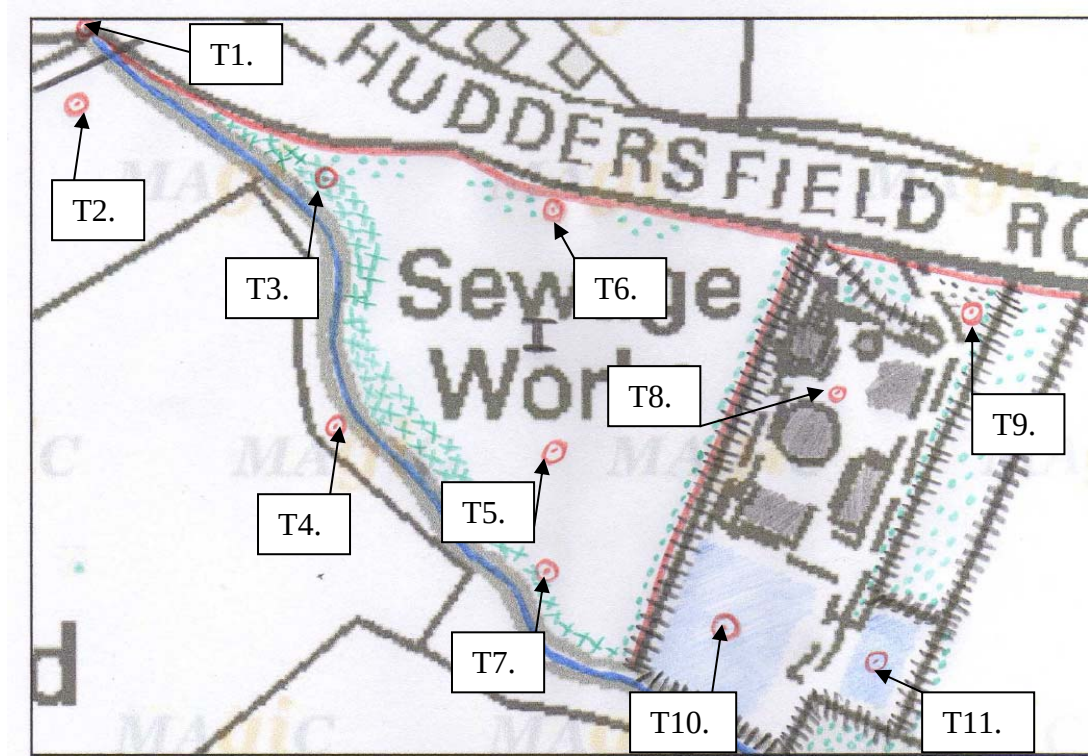
3.2.2. The aerial photograph below shows the survey area and the surrounding area.



3.3. Phase 1 Habitat Survey Results.

3.3.1. Annotated Map of the Survey Area.

Below is an annotated map of the survey area showing all the habitats included within the survey area.



Scattered Scrub.



Mixed Scattered Trees.



Wall.



Buildings.



Bare Ground.



Moving Water.



Fence.



Target Note.



Improved Grassland.

3.3.2. Description of Habitats.

Below are the descriptions of the habitats shown on the Annotated Map of the Survey Area above.

- Scattered Scrub - The northern bank of the watercourse which blends into the field boundary and is made up of dense scattered scrub. The scrub on site comprises hawthorn, ash, oak, elder, willow, hazel, nettle and bramble.



- Mixed Scattered Trees – At several points on the site, around the STW and along the road boundary there are areas of mixed scattered trees. The trees on site comprise sycamore, oak, holly, silver birch, ash and willow.



- Wall - The northern boundary and the central boundary dividing the STW and the adjacent field is made up of a dry stone wall.



- Buildings - There is only one building on site within the STW with seven other areas of brick and metal silos/settling tanks.



- Bare Ground - There is an area of bare ground made up of concrete and tarmac within the STW and the access off Huddersfield Road.



- Moving Water - Ingbirchworth Dike was identified along the southern boundary of the site.



- Fence - The boundary of the STW comprises metal Palisade fencing.



- Improved Grassland – The field adjacent to the STW comprises improved grassland.



3.3.3. Target Notes.

Below is a list of the target notes referring to the Annotated Map of the Survey Area.

- **T1** – A stone bridge was identified to the west of the survey area.
- **T2** – A metal pipeline was identified crossing the site to the south of the bridge supported on stone abutments.
- **T3** – A large area of Himalayan Balsam was identified growing on the corner of the watercourse.
- **T4** – Ingbirchworth Dike was identified flowing along the southern boundary of the site.
- **T5** – The field adjacent to the STW comprises improved grassland.
- **T6** – The northern boundary comprises a stone wall with scattered trees along the bank.
- **T7** – Himalayan Balsam was identified growing along the watercourse flowing along the southern boundary of the survey area.
- **T8** – An area with a brick building and brick and metal silos/settling tanks.
- **T9** – Comprises a concrete and tarmac hard standing area.
- **T10** – A large reed bound settling pond identified to the south of the STW.
- **T11** – A small reed bound settling pond identified to the south of the STW.

3.4. Protected Fauna Survey Results.

3.4.1. No badger setts or badger field signs were identified within the survey area.

3.4.2. Ingbirchworth Dike was identified flowing along the southern boundary of the survey area. The watercourse was thoroughly checked for the presence of water voles, otters and crayfish. No evidence of the above species was identified during this survey.

3.4.3. There were three ponds within 500m of the survey area. Two were identified as settling ponds within the existing sewerage treatment works. These ponds were reed bound and heavily silted with little potential habitat for great crested newts. The third pond was identified as Scout Dike Reservoir, which is a well stocked fishing lake with no potential habitat for great crested newts.

3.4.4. There was one building identified within the survey area in the STW, which was assessed as being a flat roofed brick building displaying no bat field signs and no potential for roosting bats. There were several trees identified around the survey area which may provide a suitable habitat for roosting bats.

3.4.5. No Japanese Knotweed or Giant Hogweed was identified within the survey area. However, Himalayan Balsam was identified growing in several areas along Ingbirchworth Dike along the southern boundary of the site.

3.4.6. The site offers abundant opportunities for nesting birds in the trees and ground vegetation on the site.

3.4.7. The dry stone walls on the site may provide a suitable habitat for reptiles.

4. EVALUATION OF FINDINGS.

4.1. No badger setts or badger field signs were identified within the survey area therefore there are no licensable badger issues with the proposed works.

4.2. Ingbirchworth Dike did not display any water vole, otter or crayfish field signs during this survey. There will be no requirement for any further licensing regarding these species in connection with the proposed works.

4.3. The ponds identified within 500m of the survey area were assessed as being a poor habitat for great crested newts. No records of great crested newts were identified within 500m of the survey area. There will be no requirement for any further licensing regarding great crested newts in connection with the proposed works.

4.4. There are no buildings on the site that will provide a suitable roosting site for bats. There are a variety of species of trees on the site that could provide potential bat roost sites. These trees will not be affected by the proposed works therefore a licence will not be required regarding bats in connection with the proposed works.

4.5. No Japanese Knotweed or Giant Hogweed was identified within the survey area. However, Himalayan Balsam was identified growing throughout the entirety of the watercourse.

4.6. The site offers potential habitat for nesting birds during the nesting bird season.

4.7. There is some potential habitat for reptiles within the survey area in the stone walls and areas of refugia on and around the site.

5. RECOMMENDATIONS.

5.1. If any of the large trees on the site are to be affected, a further assessment will be required to assess the impact on potential bat roosting sites.

5.2. There should be an invasive species method statement prepared to accompany the works regarding the Himalayan Balsam along the banks of the watercourse.

5.3. The entire site provides a suitable habitat for a variety of nesting birds the works should be carried out during the nesting bird season. The nesting bird season extends from March to September (Inclusive) each year. If the works are required to be carried out during the nesting bird season the works should be preceded by a nesting bird survey carried out by suitably knowledgeable person.

5.4. Personnel should be briefed on the possible presence of reptiles on the site. If any reptiles are identified, they should be allowed to move away of their own accord and the undersigned should be contacted to agree a suitable course of action.

James Campbell.

Natural England Bat Survey Licence Number: - 20103673.

Natural England Great Crested Newt Survey Licence Number: - 20103097.

Natural England Crayfish Survey Licence Number: - 20090573.

Natural England Barn Owl Survey Licence Number: - 20094025.

01.10.2010.

Appendix I. NESTING BIRD INFORMATION.

It is necessary to understand a little about the legal protection offered to nesting birds in order to evaluate the findings of this report.

Part 1.-(1) Of the Wildlife and Countryside Act 1981 states that:-

If any person intentionally:-

- (a) kills, injures or takes any wild bird;
 - (b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
 - (c) takes or destroys an egg of any wild bird,
- he shall be guilty of an offence.

Part 1.-(5) of the Act states that:-

If any person intentionally:-

- (a) disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or
- (b) disturbs dependant young of such a bird,

he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after “intentionally” the words “or recklessly”.

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September.

It is also worth remembering that some birds nest in trees and scrub but others are ground nesting.

The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

Appendix II. REPTILES - LIZARD INFORMATION.

The common or viviparous lizard (*Lacerta vivipara*) is one of three species of lizard that occur in the UK. They have a dry scaly skin and are variable in colour ranging from brown or yellow-brown to almost green with varying patterns of spots or stripes. The typical length of an adult is 150mm, including the tail.

Common lizards hibernate over the winter, emerging from February onwards depending upon the weather. They begin to mate in April and May and the young are born in late July or August. The lizard gives birth to live young, hence the term viviparous, meaning live bearing.

The lizards draw their body warmth from the sun and consequently spend long periods basking in the sun. They are commonly seen on road and railway embankments and on walls where they sit for long periods soaking up the heat of the sun before going to find food.

They occupy a wide range of habitats including woodland, marshes, heathland, moors, sand dunes, hedgerows and bogs.

Common lizards hunt insects, spiders, snails and earthworms. They stun their prey by shaking it and then swallow it whole.

At night, and when startled, they will shelter beneath logs or stones or under other refuges that may be available.

Common lizards are protected under schedule 5 of the Wildlife and Countryside Act 1981. They received greater protection following reviews of the schedules published in 1988 and 1991. This means they are protected against intentional or recklessly killing and injuring and against sale or transporting for sale.

Common lizards should not be confused with the somewhat larger sand lizard (*Lacerta agilis*). These are typically 190mm long and stockier than the common lizard. Their markings are distinctly different being considerably more colourful. Sand lizards are confined to moorland and coastal sand dunes where they lay their eggs in the warm sand. The range of the sand lizard in the UK is therefore very limited. Sand lizards are a European protected species.

The third species of lizard is the slow worm (*Anguis fragilis*), which is frequently mis-identified as a snake. The firm body of the slow worm is distinctly cylindrical in shape and the tiny smooth scales result in a very smooth, shiny appearance. Colouration is typically a uniform grey to brown although there is a wide variation from straw coloured to almost black and some animals have very fine stripes or a zig-zag along the centre of the back. The typical length of an adult is 400mm.

Slow worms can be found in a wide variety of habitats throughout Britain and is the most likely reptile to be found in urban and suburban environments.

Slow worms hibernate over the winter, emerging from March onwards depending upon the weather. They begin to mate in April and May and six to twelve young are born in August or September.

Their favourite food is slugs but they will also eat insects and spiders.

Slow worms are hard to find. They will bask in the sun but they quickly and quietly move into cover when disturbed and do not generally attract attention as they retreat from a basking spot.

Slow worms are also protected under schedule 5 of the Wildlife and Countryside Act 1981. They received greater protection following reviews of the schedules published in 1988 and 1991. This means they are protected against intentional or recklessly killing and injuring and against sale or transporting for sale.

Appendix III.

REPTILES - GRASS SNAKE AND ADDER INFORMATION.

The grass snake (*Natrix natrix*) and the adder (*Vipera berus*) are the two most common snakes to be found in the UK. Adders are found all over Britain while the grass snake becomes rarer towards the north and are rarely found in Scotland.

The grass snake is usually around 120cm long, live in a variety of rough habitats and lay their eggs in warm rotting vegetation. The background colour is dark green and the body is marked with vertical black bars and spots that run along its sides. There is generally a dark collar marking.

The adder is the only native species that is venomous but this is rarely harmful to humans. Adult adders are generally up to 66cm long. Background colouration is a light shade of grey or brown with a black zigzag marking along the length of the back. As with all reptiles, colouration varies and becomes duller as sloughing (skin shedding) approaches.

Both snakes hibernate, spending the winter in burrows or under logs protected from the cold and predators. Maintaining the right body temperature is vital to reptiles' survival. In the morning, they find a warm basking site to heat up their bodies, then later they may move back into the shade because they do not sweat and have to be careful not to overheat. During hot summers, adders will try to move to damper, cooler sites.

Both snakes are protected under schedule 5 of the Wildlife and Countryside Act 1981. They received greater protection following reviews of the schedules published in 1988 and 1991. This means they are protected against intentional or recklessly killing and injuring and against sale or transporting for sale.

Appendix IV. INVASIVE SPECIES INFORMATION.

There are two specific invasive species generally encountered and dealt with here.

- Japanese Knotweed.
- Giant Hogweed.

Japanese Knotweed, (*Fallopia Japonica*) {JKW} is a pernicious non-native species of plant. The plant is an extremely long-living perennial that does not spread by seeding but instead it spreads by vegetative means. Any small section of the rhizome, crown and stem segments will grow into a new plant. It is extremely vigorous and very difficult to eradicate.

Giant Hogweed, (*Heracleum mantegazzianum*) {GH} is not only an invasive alien species but is also an injurious weed as contact with skin causes increased sensitivity to ultra violet light, which can result in rashes, severe burns and painful blistering.

Under section 14 and Part II of Schedule 9 of the Wildlife and Countryside Act 1981 it is an offence for either to be planted in the wild or otherwise caused to grow in the wild. Any area where either is found should be fenced off and warning signs erected. All staff should be warned both verbally and in writing that these areas should not be entered and should not be tracked over by machinery.

If land that is contaminated with either Japanese Knotweed or Giant Hogweed is required to be worked on or is in danger of being tracked over or affected by the construction works in any way it must be dealt with in a rigorous way. Failure to do so not only risks prosecution but very high costs to eradicate any new growth.

There does not appear to be any defined distance away from Japanese Knotweed that work should be carried out. Literature does state that the underground root system can spread up to seven metres and this is the suggested size of area to be excavated when eradicating by excavation. All excavated soil must be treated as controlled waste and dealt with according to strictly controlled procedures.

DEFRA guidance suggests that all soil within 4m radius of a Giant Hogweed plant is potentially contaminated with seeds and must therefore be dealt with as contaminated waste and according to strictly controlled procedures.

All excavated materials must be transported in sealed vehicles to a waste disposal site that is licensed to deal with waste contaminated with invasive species. On leaving areas of the site known to contain Japanese Knotweed or Giant Hogweed, any tracked machinery that has been used should be thoroughly cleaned within a designated area.

Alternatively Japanese Knotweed and Giant Hogweed can be controlled by a prolonged treatment with approved herbicides.

It is not an offence to leave either growing, in situ, only to spread them to new areas.

Further information is available on the DEFRA website at www.defra.gov.uk

Appendix V. DEVELOPMENT PLAN.

