

Wrexham AFSRC: Pre-construction Review of Ecological Constraints

1. Introduction

1.1 Ecological Assessment

The Welsh Ambulance Service Trust (WAST) proposes to develop a combined Ambulance Station and Fire Resource Centre on a site ('the site') at Croesnewydd Road, Wrexham. The site is situated at National Grid Reference (NGR) SJ3194 5037 on the western side of Wrexham town centre. It is bounded to the north by Wrexham Maelor Hospital (specifically the hospital car park on the disused railway); to the west by the Croesnewydd Road; and to the south by the River Gwenfro. This site is a component of the wider 'Western Gateway' development, which is part of ongoing development within Wrexham Technology Park.

BAM Construction Ltd, assisted by Nightingale Associates and AMEC Environment & Infrastructure UK Ltd, prepared the planning application for the proposed development on behalf of WAST. AMEC completed an Ecological Assessment of the proposed development in 2012. The Ecological Assessment is detailed in a separate report (AMEC UK Ltd 2012¹), supported by plans and includes details of the site and proposed development and describes the approach to and results and conclusions of the Ecological Assessment.

The Ecological Assessment (AMEC 2012) was informed by survey data collated in 2009 to inform the Ecological Impact Assessment of the wider Western Gateway development (Marches Ecology 2009) as well as a walkover survey in 2012. AMEC was commissioned to undertake a further site walkover in October 2013 (AMEC 2013²) and a review of the survey data to assess any changes in the structure and distribution of habitats at the site that could have led to changes in the status and/or nature conservation value of these habitats or the species they support.

1.2 Pre-construction Survey of Ecological Constraints

The proposed development has now been recommended for planning consent³ and enabling works will shortly commence on-site. AMEC E&I were therefore commissioned to undertake a pre-construction survey of the site. Specifically AMEC E&I were commissioned to undertake a walkover survey of the site to record/map and where appropriate demarcate the locations of

¹ AMEC (2012). Wrexham ARC Ecological Assessment. Technical Report Prepared for BAM Construction Ltd

² AMEC (2013). Wrexham AFSRC – Ecological Assessment (Update 2013)

³ Application No: P/2013/0805: Report of the Head of Community Wellbeing and Development– 6 May 2014

ecological constraints, including nesting birds, badger setts, otters holts/couches and areas of Himalayan balsam.

2. Methodology

A walkover survey of the entire site was undertaken by an experienced Ecologist on the morning of 22nd May 2014. The Ecologist assessed and recorded any potential ecological constraints on the planned site works, including but not limited to:

- All birds present on the site;
- Birds demonstrating breeding behaviour (displaying, singing, nest building, carrying food);
- Location of birds' nests;
- Badger sett locations and recommended exclusion ('no-disturbance') zones;
- Otter holts/couches and exclusion zones;
- Himalayan balsam.

Levels of otter activity (spraints) throughout the reach of the River Gwenfro that borders the site were also assessed. Otters are known to use this reach of the Gwenfro, signified by small numbers of spraints recorded during previous surveys. The completed development will incorporate a fence (otter fence) that borders the development and excludes a 15m riparian corridor to dissuade otters from straying onto the development. The pre-construction assessment of otter activity was therefore required to inform the decision as to whether temporary measures or precautionary working practices are required during the enabling works (vegetation clearance and grading of the ground to finish levels along the fence line) that are required prior to fence installation.

3. Results

The results of the survey of ecological constraints are summarised as follows:

- **Birds:** areas of breeding bird activity are concentrated within the riparian woodland corridor with whitethroat, chaffinch, blackbird and fledged song thrush recorded during the survey. Although there was some evidence of foraging across the site, no active nests were identified. The trees (5538, 5539, and 5537) to be removed/disturbed do not maintain any nests.
- **Badgers:** no evidence of badger activity was recorded within the site.
- **Otters:** No evidence of otter holts or couches was recorded. Due to overnight rain the watercourse level was elevated and a number of potential spraint sites were underwater and the flow may also have washed some spraints away. However a number of spraints were recorded; the number, density and age of these spraints would indicate that this stretch of the river is used by otters but is unlikely to be a significant element of an otter's territory.

- **Himalayan balsam:** there is substantial recovery of this species, particularly within the southern part of the site.

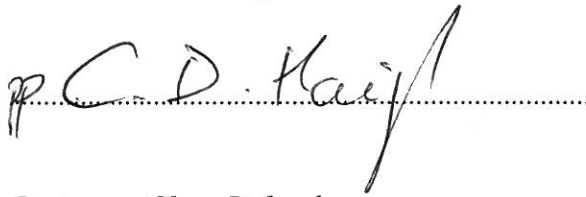
4. Recommended Working Practices

The precautionary measures to be implemented by the Principal Contractor during the enabling and construction works are summarised as follows:

- The River is likely to be used by otters occasionally and mainly between dusk and dawn i.e. outside site working hours. Therefore the installation and maintenance of a robust, highly visible, temporary fence, bordering the riparian corridor (15m radius from the edge of the watercourse), prior to site clearance and enabling works will provide adequate temporary protection. The fence will primarily limit access to and disturbance of the riparian corridor. It is proposed that a Heras type fence or similar will be installed, which is also to some extent likely to deter otters from dispersing out of the riparian corridor and onto the site. The fence should be minimum 1.5m high, with 100 x 50mm mesh size (2.5mm gauge), resting on the ground (i.e. with no gap between the ground and the bottom edge of the fence) and propped with stays (not on weighted rubber feet) on the inside of the operational site (not on the river side of the fence).
- A permanent otter proof fence should be established once site clearance and enabling works have been completed in order to further minimise disturbance to the riparian corridor throughout the construction phase. The fence design will be based on published, tried and tested specifications.
- The temporary fence should be breached temporarily and locally only where this is unavoidable to permit vegetation clearance along the fence line and careful excavation of spoil mounds adjacent to the riparian corridor. Any fence breach should only be during daylight hours and for the minimum practicable duration whilst excavation of spoil is taking place from adjacent to the riparian corridor. It should be fully reinstated when spoil excavation is not in progress close to the riparian corridor and otherwise remain fully intact.
- As breeding bird activity is restricted to the riparian woodland, and this area is to be retained and supplemented as part of the development, no further mitigation is proposed. However, the temporary fence should be established prior to any vegetation/site clearance to clearly demarcate and protect the riparian corridor and associated birds' nests. This fence should be established such that the roots of trees within the riparian corridor are not subject to excavation and/or compaction and that tree canopies are not damaged.
- No site material or plant/equipment is to be temporarily stored, or material discarded, within 30m of the river bank and no staff will enter the fenced riparian corridor, other than temporarily to permit spoil excavation from adjacent to the watercourse and for the minimum practicable duration as described above.
- The site lighting scheme will avoid light spill onto the riparian corridor between dusk and dawn, with negligible light spill within 15m of the river.
- No lights will be left on over night during construction, other than where this is unavoidable and then not within 30m of the river.

- No works will take place at or before dawn and at or after dusk, other than where this is unavoidable in winter and then not within 30m of the river.
- All staff driving vehicles and plant in the vicinity of the site, or operating plant on-site, especially but not limited to evenings and early mornings, should drive cautiously and observe the speed limit and remain alert to the potential presence of otters at all times in order to avoid harming them.
- Any otter sightings on the development site by site staff should be reported to the site manager, who should in turn consult an ecologist on the required course of action.
- The relevant Pollution Prevention Guidelines (PPG) should be adhered to at all times in order to safeguard against pollution of the River Gwenfro and associated effects on otters and their prey. These PPGs should be factored into the Site Environmental Management Plan
- The above measures should be included in a Site Environmental Management Plan (SEMP) and the Principal Contractor should make all staff aware of the precautions outlined above by way of a tool box talk. The SEMP will also set out how the temporary fence will be managed to allow temporary access to spoil mounds (for example, re-locating the fence locally/temporarily to work around it; details of signage to be fixed to the fence; and requirements for toolbox talks to site operatives) and will identify the relevant PPGs to be adhered to throughout the works. A Draft SEMP will be submitted to Wrexham County Borough Council and will be updated prior to and during construction.
- WCBC's Ecologist will be invited to site to inspect the temporary fencing (recognising that the temporary fence is primarily intended to demarcate and minimise disturbance of the riparian corridor during the enabling works and is not specifically an otter exclusion fence) and tree protection measures after installation and prior to work commencing, for approval and sign-off, with a further invitation/inspection once the permanent otter fence has been installed
- Himalayan balsam control has been undertaken at the site by a specialist contractor using herbicide. Further treatment of this species will be required as limited re-growth was recorded on the site. There are two main treatment options:
 - Physical removal over consecutive years is effective on isolated sites, but must take place before the plants set seed (i.e. before approximately mid-June). Any manual removal after mid June would need precautions in place to contain the spread of seeds, which may be labour intensive and unreliable.
 - Alternatively the stands of this species could be subject to further herbicide treatment. Chemical control (Environment Agency 2010) near water can be carried out with herbicides containing glyphosate or 2,4-D amine. Glyphosate will also kill grasses, but 2,4-D amine will kill only broad-leaved weeds. The optimum timing is when the plant is small and actively growing, particularly in spring. An option would be to apply a final herbicide treatment to the re-growth within the site and then once this has taken effect, scrape off the top soil from these areas and temporarily stock pile in a corner of the site and monitor any re-growth and treat it again in the following spring. The control of Himalayan balsam post-construction would also be factored into the site/riparian corridor management plan

Author: Andrew Whitfield



Reviewer: Glenn Richards



Copyright and Non-Disclosure Notice

The contents and layout of this report are subject to copyright owned by AMEC (©AMEC Environment & Infrastructure UK Limited 2014) save to the extent that copyright has been legally assigned by us to another party or is used by AMEC under licence. To the extent that we own the copyright in this report, it may not be copied or used without our prior written agreement for any purpose other than the purpose indicated in this report.

The methodology (if any) contained in this report is provided to you in confidence and must not be disclosed or copied to third parties without the prior written agreement of AMEC. Disclosure of that information may constitute an actionable breach of confidence or may otherwise prejudice our commercial interests. Any third party who obtains access to this report by any means will, in any event, be subject to the Third Party Disclaimer set out below.

Third Party Disclaimer

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by AMEC at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. AMEC excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.