

# INTERNAL MEMORANDUM

To: Huw Roberts  
From: Ecologist  
Ask for: Matt Davies  
Ext: 5278  
Memo number: 1  
Date: 04<sup>th</sup> February 2020

**SUBJECT: P/20/0025 – Former Ardagh Site, Dragon Parc, Abercanaid, Merthyr Tydfil**  
*(Proposed engineering works to remove the site from flood zone C2 – including provision of drainage channel/swale and culvert/outflow, raising the level of the land and creation of site access road)*

The following ecological reports have been submitted in support of this application:

1. 2016 Ecological Appraisal Report, RPS Group
2. 2016 Bat Activity Survey, RPS Group
3. 2019 Preliminary Ecological Appraisal (PEA), Ecological Services Ltd

## Grassland habitat

The 2019 PEA report classifies the habitats in the north of the site as *Neutral Grassland*; *Marshy Grassland*; *Marginal Vegetation* and *Woodland*.

Species noted within the *Neutral Grassland* – wild carrot, *crested dog's-tail*, autumn hawkbit, *sweet vernal grass*, purple loosestrife, *knapweed*, heath woodrush and *bird's-foot trefoil*. Those picked out in *italics* are characteristic of species found in National Vegetation Classification: MG5 grassland (*Cyanosurus cristatus*-*Centaurea nigra*). This habitat could also therefore be categorised as Lowland Meadow (a priority habitat – Section 7 of the Environment (Wales) Act 2016).

The area of onsite *Marshy Grassland* is also a Section 7 priority habitat.

These habitat types can be classed as Section 7 priority habitats in their own right, however, the habitats in the north of the site taken as a whole would also qualify as a Section 7 priority habitat under Open Mosaic Habitats on Previously Developed Land.

The 2019 PEA report states '*... it would seem likely that some areas of scrub and semi-improved grassland will be affected temporarily due to engineering works to create the new drainage swale.*

*Given the small scale impacts of the current development proposals, dedicated reptile surveys are not recommended at present. Instead the presence of a small number of reptiles will be assumed and species avoidance measures implemented as part of the development proposals.'*

A more extensive/detailed Reptile Mitigation Strategy will be required to ensure there is no killing or injury of reptiles as a consequence of the development. As there will be disruption to a Section 7 priority habitat (Lowland Meadow) compensation measures will be required.

### Bats

The 2016 Bat Activity Report recommended a soft demolition / soft strip to be undertaken under the supervision of a licensed bat ecologist within the main activity season (between April/May and September).

The up-to-date bat survey results from 2019 did not identify bat roosts within the onsite buildings. The bat survey conclusions (4.3 page 18) state that the use of the onsite buildings as occasional day roosts, however, cannot be totally ruled out and again recommends a soft-strip with ecological supervision. This is a welcomed precautionary approach, however, is not mentioned within the recommendations and mitigation section (Section 5., pages 20-22). **This needs to be added to the 2019 PEA report.**

**A detailed working method statement will be required and will be followed during the demolition. It will include instructions regarding the procedure if bats (or bat signs) are encountered (i.e., all works will cease until a European Protected Species Licence is granted by NRW).**

The buildings may also be suitable as hibernation roosts and so the timings of the demolition will take this into account (also to be included within the method statement). My recommendation would be to undertake the demolition outside of most vulnerable periods for bats (maternity and hibernation) – therefore undertaking works either in October/November or March/April.

### Lighting

Section 4.3 Bat Survey Conclusions (page 19) states:

*'Both Common and Soprano Pipistrelle are known to be able to tolerate light levels greater than some other species of bat. Although this is the case it is important that a detailed lighting plan is submitted to ensure that dark corridors are retained around the site boundary to ensure that commuter connectivity is preserved. This is especially relevant to the eastern boundary as this has more feeding opportunities as it is adjacent to the river and this area also has the presence of Myotis species of bat which can be less tolerant of light levels. It is imperative that light spill is contained from entering the designated SINC area around the river Taff.'*

Artificial Lighting At Night (ALAN) also has implications for other species, not least, for example, insects.

A recent study:

<https://www.sciencedirect.com/science/article/abs/pii/S0006320719307797?via%3Dihub>

has identified ALAN as being one of the major drivers of the decline of insects around the world. Unhalted, this global insect decline has the potential cause the collapse of terrestrial and freshwater ecosystems.

**Therefore, ideally no lighting will added in relation to this development.**

**If lighting is proposed, it will conform to the following guidance and recommendations:**

(2018) Guidance Note 08/18. Bats and artificial lighting in the UK: Bats and the Built Environment series. Bat Conservation Trust and Institute of Lighting Professionals:

<https://cdn.bats.org.uk/pdf/Resources/ilp-guidance-note-8-bats-and-artificial-lighting-compressed.pdf?mtime=20181113114229> -

- Important considerations can be seen on pages 18 and 19 under the heading 'Appropriate luminaire specifications'. Other measures to be considered include 'dimming and part-night lighting' and 'screening'.
- There will be no extra lighting of the boundary habitats or the grassland habitat to the north of the site.
- A lighting plan will be produced to be approved by the Local Authority Ecologist.

**A plan showing the bat activity/flight lines of the bats is required within the 2019 PEA report to better inform the lighting plan.**

**During construction, there will be no night-time working on site during the bat activity season (May to September) which must remain dark for the benefit of bat species.**

#### Otter

Otter are known to use the River Taff with the nearest record 380m from site. **Due to this a more detailed protection protocol will be required (see below). This will need to be included within the report.**

- Prior to works near the River Taff, a pre-construction survey 300m upstream and 300m downstream of the outfall position is required to establish if and how otter use the area and whether there are active otter holts/shelters nearby that would be negatively impacted.
- An Ecological Clerk of Works (ECoW) will supervise enabling works and construction. The ECoW should be a suitably qualified ecologist (SQE) and ensure works are carried out in accordance with a Construction Environmental Management Plan (CEMP).
- No work to be undertaken within 30m of any otter shelter or 200m of any breeding holt, except under licence from NRW.
- No works resulting in large-scale noise or vibration (e.g., pile driving or blasting) within 100m of any otter shelter, unless under licence from NRW.
- Any excavations (e.g., trenches or trial pits) more than 0.5m deep will be covered overnight to prevent animals falling in. Otherwise, a plank (at an angle of 30°) will be added as a means of escape if required.
- Any open pipes (culverts) installed stored on site will be closed to prevent animals entering and becoming trapped.
- The outflow will include suitable ledges to ensure free passage of otters during periods of high water flow. The requirement for suitable ledges will be determined by the onsite ECoW.
- All rubbish/materials will be collected and removed from site on a regular basis to prevent trapping and/or injury of wildlife.
- In the unlikely event of an otter encounter or any evidence suggesting presence of otter within the works footprint, work will cease immediately and the ECoW will be consulted for advice.
- There will be no night-time working near the river, which must remain dark for the benefit of otter and other nocturnal species (e.g., bats).
- Toolbox talks on otter should be provided to all construction staff on site and an emergency procedure provided to contractors in the event of an otter encounter or the discovery of a new otter holt/shelter.

- All otter shelters will have a 30m 'out-of-bounds' protection zone (clearly demarcated). Vegetation will not be cleared from these areas without consultation and an appropriate licence from NRW.
- In the unlikely event of an otter being injured or killed (or shelters damaged), the ECoW will be contacted immediately for advice.

#### Water quality monitoring

**A Water quality monitoring plan will be produced to ensure the protection of the watercourse.** This will include, but not be limited to the following:

- All equipment, materials and chemicals will be stored well away from the watercourse. Chemical, fuel and oil stores will be sited on impervious bases within a secured bund.
- Standing machinery will have drip trays beneath to stop oil and fuel leaks causing pollution.
- Refuelling and maintenance of machinery will take place in a single designated area on an impermeable surface well away from the watercourse.
- Measures will be instigated to prevent silt/dust entering the watercourse (e.g., straw bales or silt curtains).
- Any sewage from onsite welfare facilities will be disposed of appropriately.
- Welfare facilities will be sited away from the river (NB the site has large areas of hardstanding that would be appropriate).
- Use of wet concrete in and around the watercourse will be minimised and closely controlled.
- Emergency equipment will be available on site (e.g., spill kits and absorbent materials).

#### Swale

The alignment of the swale will enter the site and follow the DCWW easement avoiding the loss of mature onsite trees.

The Planning, Design & Access Statement (Asbri Planning, December 2019) states that *'The swale will have a natural appearance with areas promoting ecological gain'* (3.10, page 17).

This appears to be an excellent opportunity for ecological/biodiversity gain across the site, **however, this is not mentioned within the 2019 PEA report.**

**The swale will be wildlife-friendly and a detailed specification and planting plan (e.g., emergent plants and plants that tolerate periodic inundation) is required to be agreed by the LPA. The plan will include establishment, maintenance, management and replacement details for the planting in the swale.**

#### Onsite trees

The 2019 PEA report implies that no trees will be lost within the main body of the site and that root protection zones must be implemented in line with 'British Standard BS 5837 Trees in relation to design, demolition and construction'.

I note there is an Arboricultural Report (ArbTS – Arboricultural Technician Services, October 2019) that includes a Tree Protection Plan and Arboricultural Method Statement. **This will be followed in order to protect remaining onsite trees and will be cross-referenced within the 2019 PEA report.**

NB the Arb report highlights an individual tree plus three tree groups for removal to facilitate the construction of the proposed development design.

These trees will require a more detailed ecological survey to assess their suitability for priority and protected species prior to removal (e.g., to inform whether PRF inspection surveys, or bat activity surveys are required). If bat roots are identified, an EPSL will be required to allow removal of the tree(s). Compensation for the loss of any Potential Roost Features (PRFs) will be required in the form of bat boxes on nearby trees.

Compensation for the loss of the trees will be required – replacement specimens should be provided as close as possible in age/size to those lost. If feasible, translocation of existing trees should be considered. This information will be added to the PEA report.

The Arb report does not assess the mature trees that will be lost along the river to facilitate the outfall/discharge point.

The 2019 PEA report states *'The construction of the new discharge point along the River Taff will result in the **loss of some mature trees** and scrub along the river banks creating a negative impact on the designated SINIC. In order to mitigate for this habitat loss a management strategy for the Japanese knotweed in the area will be agreed and implemented. **Replacement planting** along the river will also be undertaken with a management plan for a period of 5 years after planting to ensure all **saplings** establish. If any planting fails it will be replaced.'*

Further information is required regarding the trees to be removed to facilitate the new discharge point, for example, number of trees, species, age etc. Preliminary Ground Level Roost Assessment of the trees will also be required to inform whether PRF inspection surveys, or bat activity surveys are required. If bat roots are identified, an EPSL will be required to allow removal of the tree(s). Compensation for the loss of any Potential Roost Features (PRFs) will be required in the form of bat boxes on nearby riverside trees.

Compensation for mature trees will need to be appropriate for planting on the riverbank and fast growing to re-establish cover as quickly as possible following the development. I would advise T2.11 Bushy trees (Horticultural Trades Association National Plant Specification, September 1997). This will provide immediate scale and mass in a 'natural' coppiced form – species suggestions *Alnus glutinosa*, *Salix alba*, *Salix fragilis*. If feasible, translocation of existing bankside trees should be considered.

Details of aftercare, management and maintenance as well as replacement of failed species will be required for 5 years post-development.

#### Pond

The 2019 PEA states:

*'The new swale route will require the removal of the current pond within the site, approximate location is shown in Appendix 3. A new pond measuring a minimum of 4m by 4m in surface area and 1m in depth will be created on the western edge of the swale, between the sale and retained trees. The pond will be made watertight but left to establish native aquatic vegetation in its own time.'*

The pond will be designed with wildlife in mind. The shape of the pond margins, banks and bottom should be varied. The banks should be gradually shelved or should gently slope down to the deepest part of the pond. There will be a marsh area alongside for marginal planting. A specification, construction methodology and a planting scheme (native species) for the different pond zones [i.e., totally submerged; submerged, but with floating leaves; emergent (in shallower area); marginal (growing in pond edge and bog areas)] will be provided (NB devil's bit scabious will be included within the marsh area).

The 2019 PEA report should advise a protocol to be followed in the unlikely event of an encounter with Great Crested Newt.

#### Japanese knotweed

There are stands of Japanese knotweed (JKW) in the south east corner of the site and along the River Taff at the proposed position of the outfall.

Japanese knotweed is an Invasive Non-Native Species (INNS). The Wildlife and Countryside Act (1981) as amended, makes it an offence to release or allow to escape into the wild any animal, plant or micro-organism not ordinarily resident in the UK (as listed in Schedule 9 of the Act).

**A specialist contractor must therefore be commissioned to produce a method statement for removal of the onsite and riverside Japanese knotweed and prevention of its spread. This must include the measures to prevent spread via the watercourse.**

**A method statement will be submitted to the Local Authority for approval.**

#### General

The installation of the outflow into the river will require consultation with NRW – they should also consider the impact of its installation on European Protected Species (otter and bats).

Suggested enhancements [in line with the Environment (Wales) Act 2016] are included within the 2019 PEA report (page 22), however, these appear to be aimed at the later development of the wider site (residential scheme). These enhancements will therefore be relevant to the planning application for the wider site and a future ecological report.

**Enhancement measures relevant to the current planning application (for the swale, culvert, outfall etc) are required.**

The 2019 report is submitted as a PEA report. PEA reports should not be submitted as part of a planning application unless it determines that the proposed development would have no significant ecological effects, no mitigation is necessary and no further surveys required. The proposed development will have significant ecological impacts and mitigation and compensation measures will be required. **The PEA report should therefore be superseded by an Ecological Impact Assessment (EclIA) Report** (see Guidelines for Ecological Report Writing, Second Edition, CIEEM 2017).