

Ecological Compliance Audit

Project	Conrad Wrexham
Survey date	20/05/2022
Report date	18/07/2022
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Summary: An Ecological Compliance Audit has been undertaken to evaluate the current status of the habitats and provide any necessary recommendations. The majority of the proposed measures have been implemented successfully. Key outstanding actions are summarised in section 1.9 of this document.

Purpose of this report

- 1.1 The site is at the corner of Oak Road and Abbey Road, Wrexham Industrial Estate, LL13 9RF. The project involves erection of a gas fired power station and associated infrastructure.
- 1.2 Planning Condition 7 states that “A compliance audit shall be carried out by a qualified ecologist, independently of the appointed principal ecologist, in accordance with details which have been submitted to and approved in writing by the Local Planning Authority. A copy of the completed audit reports should be submitted to and approved in writing by the Local Planning Authority after each phase of development.”
- 1.3 Section 4.5 of the Ecological Mitigation and Enhancement Scheme (REC, June 2020) also states that “The site will be visited during years 1, 2 and 5 following the completion of development (between April and September i.e. the main flowering period) by a suitably qualified ecologist to monitor and evaluate the current status of the habitats and provide any necessary recommendations to ensure that the site management objectives are being upheld.
- 1.4 This Ecological Compliance Audit assesses the inclusion and success of measures detailed within the Ecological Mitigation and Enhancement Scheme. This comprises

both a site survey (detailed below) and an assessment of other information provided by the project team about measures implemented during the construction process.

Site Survey

- 1.5 A site ecological survey was undertaken on 20th May 2022. The survey was undertaken by Martyn Owen, an experienced ecological consultant with over 18 years' experience, and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). The survey was undertaken during the period of the year when most flowering plants would be expected to be evident.
- 1.6 The survey included an inspection of the site to ascertain whether the measures detailed in the Ecological Mitigation and Enhancement Scheme had been successfully implemented.

Results – processes or measures

- 1.7 The following measures were discussed with the project team as they comprise measures that may not be readily evident on site. Where appropriate, records have been provided to demonstrate compliance.

Eco Mit and Enh Scheme Section	Process or Measure	Information Supplied	Action Required
2.3	Veg removal to avoid nesting birds: All vegetation removal will be undertaken outside of the bird breeding season (generally considered to be March to August, inclusive). Should these works be required within the breeding bird season, then an Ecological Clerk of Works (ECoW) will be required to check vegetation for active nests prior to works commencing. Any active nests will be retained in situ (with a sufficient buffer zone) until the young have fledged and are fully independent. If no breeding birds are identified on site, then no further mitigation measures will be required for breeding birds.	All clearance undertaken outside bird nesting season - The site was cleared originally by the landlord in Feb 2020 (main clearing of the site, including the removal of some trees), the project had a few early delays which meant Enrgy (Principle Contractor) returned and strimmed the site to make it safer to clear with large machines. The strim and clearance started in October 2020 and was concluded in Jan 2021.	Achieved – no action required.
2.4/4.4	Veg removal to avoid great crested newts/reptiles: To avoid the active season for great crested newt/reptiles, any works affecting vegetated habitats within the site (except where specifically identified to represent potential hibernating opportunities) are undertaken in the winter. Where possible, cutting will be undertaken when reptiles/amphibians are least likely to be harmed, generally between November-February, with areas around	Veg clearance was undertaken in winter - February, October and January as noted above.	Achieved – no action required.

Eco Mit and Enh Scheme Section	Process or Measure	Information Supplied	Action Required
	hibernacula in particular avoided in order to ensure suitable habitats remain during spring emergence and avoid potential disturbance.		
2.4.	Ecologist hand search of habitat piles: The proposed development area will be searched beforehand (during the active season) by a suitably qualified ecologist to search and remove any suitable features such as logs, brash piles or rubble piles. Any encountered great crested newt or reptile will be captured, and moved into the retained habitats (bordering grassland) by an ecologist, with the habitat piles removed by hand to ensure no suitable hibernacula remain within affected works areas.	Unfortunately, no ecologist was in attendance for the site clearance. The area that was cleared was only the construction site. The “ecology area” to the right of the site was not cleared.	Not achieved, works undertaken – no further action possible.
2.4.	Precautionary method of veg clearance: Taller vegetation on the development site will be removed with hand tools (including chainsaws and brush cutters, for example) under the supervision of a suitably qualified ecologist, in a linear fashion (to around 150 mm) towards the retained habitats; Upon completion of the strimming, the site will be further searched by an ecologist prior to ground disturbance, to ensure that the area is clear of any great crested newt; Once the development area has been cleared of the sparse vegetation and any suitable features, the development will proceed.	Unfortunately, no ecologist was in attendance for the site clearance. The area that was cleared was only the construction site. The “ecology area” to the right of the site was not cleared.	Not achieved, works undertaken – no further action possible.

Eco Mit and Enh Scheme Section	Process or Measure	Information Supplied	Action Required
2.4 and 4.5	GCN habitat monitoring: Desktop review of surrounding habitats within 250m. Note any new (suitable) pond identified within 250m of the site without significant barriers to GCN dispersal (for instance, any new breeding ponds provided as part of nearby offsite works south of Oak Road).	Ecologist Desktop check (Simon Thomas, June 2022): No notable new habitats visible on aerial photography (Google) when compared with aerial images in Ecological mitigation and Enhancement report.	Achieved – no action required.
2.2	Sensitive lighting scheme: Further lighting design info to be supplied for desktop review. Exterior lighting will not face towards retained habitat (east of site); Lights will always be mounted on the horizontal, i.e. no upward tilt; Any external security lighting will be set on motion-sensors and short (1min) timers; As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.	Installed lighting shown in “Conrad Energy – Wrexham As Built- Lighting Configuration” is controllable from PIR’s and is directed above doorways /entrances and critical walkways. Either 20w spotlight or 20w striplight used depending on location. All lights were positioned for essential safety and to reduce neighbouring overspill. The strip lights all had manual override switches that were placed towards the front of the engine containers. Further details from ecological site audit below.	Achieved – no action required.
4.4	Grassland management: Cutting of no more than approximately 50% of the open grassland to take place area each year, with cutting undertaken rotationally on a 2-3year basis;	Management contracted to Wildlife Trust ‘Annual cut and collection of two thirds of grassland to preserve wildflower diversity in September-	Achieved – Continue management.

Eco Mit and Enh Scheme Section	Process or Measure	Information Supplied	Action Required
		October. Arisings to be composted on site.' This does not match the Ecological Mitigation and Enhancement Scheme stipulation but is presumably deemed ecologically preferable by the Wildlife Trust.	
4.2.	Landscape company: A suitable landscape company will be employed and co-ordinated by Conrad Ltd. to undertake the required management in consultation with the appointed suitably qualified ecologist.	Management contracted to Wildlife Trust.	Achieved – no action required.
4.2.	Records of management: Records of management and monitoring will be the responsibility of Conrad Ltd. Records will include the results of monitoring, the management which has taken place, the location of any key constraints, and any new instructions as advised by the ecologist. A written record of all management measures undertaken, along with any issues and/or deviations from the specified measures and results of the required monitoring. The records will be made available to Wrexham County Borough Council and Natural Resources Wales annually in order to confirm compliance.	Provide record of all management measures undertaken. Conrad have instructed North Wales Wildlife Trust (Dec 2021) to manage the landscaping of the ecology area, but due to issues with Covid and planting availability, works were not carried out until Mar 2022 for both the planting within the developed site and the planting in the ecology area next door. The North Wales Wildlife Trust will be asked to proceed with regular	Ensure relevant instructions are made for ongoing management and records are made of actions undertaken.

Eco Mit and Enh Scheme Section	Process or Measure	Information Supplied	Action Required
		maintenance on the ecology area and Conrad will have someone else to undertake the maintenance of the internal site planting.	
4.4.	Avoidance of fertilisers/pesticides: The application of fertilisers and/or pesticides will be avoided at all times, except where spot treatment of ruderal/invasive weeds requires the use of targeted pesticides in order to maximise ecological value.	No specific reference to avoidance of fertilisers or pesticides.	Provide record of this measure being stipulated to landscape team.
4.4.	Hedgerow management: Trim in January or February to avoid the destruction of birds' nests (present from March to August) and to allow any berry crop to be used by wintering birds (September to December).	Wildlife Trust appointment confirms 'Cut in February. Arisings to be composted on site'.	Achieved – Continue management.
4.4.	Hedgerow management: Trim no more frequently than a two- or three-year rotation, with no more than 50% hedgerows cut during any single year to ensure that thick nesting cover is available every year, and to boost the berry crop that generally develops on second-year growth.	No specific reference to frequency of hedgerow trimming.	Provide record of this measure being stipulated to landscape team.
4.4.	Hibernaculum maintenance: Hibernaculum - Maintenance on an <i>ad hoc</i> basis (at least annually) dependent on requirements informed by	No specific reference to hibernacula maintenance.	Ensure relevant instructions are made for ongoing

Eco Mit and Enh Scheme Section	Process or Measure	Information Supplied	Action Required
	monitoring (see below). Where necessary, materials to be replaced/maintained in order to ensure suitable maintenance of opportunities.		management.
4.5/4.8	Ecological Monitoring: The site will be visited during years 1, 2 and 5 following the completion of development (between April and September i.e. the main flowering period) by a suitably qualified ecologist to monitor and evaluate the current status of the habitats and provide any necessary recommendations to ensure that the site management objectives are being upheld. A compliance audit will be undertaken by a third party to ensure the ecological avoidance, mitigation and compensation scheme have been implemented in accordance with legislation, planning conditions, and the Mitigation and Enhancement Scheme.	To be satisfied by this audit and future ecological audits.	Ensure relevant instructions are made for ecological audit in summer 2023 and 2026.

Results – On-site features

1.8 The following measures were visually checked on site during the site survey.

Eco Mit and Enh Scheme Section	Feature	Observation on site (20/05/22)	Action Required
2.4.	Temporary amphibian barrier fencing: Check on site for presence of fence. It may have been removed if construction is complete. A one-way barrier fence will be erected, under supervision of an ECoW, around the boundary between the development areas and the retained/enhanced habitat areas and maintained for the duration of the construction phase to exclude newts and adder/reptiles from the works area;	Fence not present.	Not present. Confirm whether this was ever installed. Now no longer required due to construction completion.
2.4.	Mitigation area check: The retained area will be subject to monitoring by an ecologist to ensure that suitable great crested /reptile habitat is provided long term.	Log piles along eastern boundary. Wildflower mix has taken well. Areas of bare ground within mitigation area.	Achieved – Continue management.
2.4 and 4.5	GCN habitat monitoring: On-site review of surrounding habitats within 250m as far as can be viewed. Note any suitable new ponds or new connective habitat identified within 250m of the site without significant barriers to GCN dispersal (for instance, any new breeding ponds provided as part of nearby offsite works south of Oak Road).	No new ponds identified and no evidence of recent development/changes.	Achieved – no action required.
2.2	Sensitive lighting scheme: Make notes on lighting visible on site.	All lighting faces working area, with no apparent likelihood of	Achieved – no action required.

Eco Mit and Enh Scheme Section	Feature	Observation on site (20/05/22)	Action Required
	Exterior lighting will not face towards retained habitat (east of site); Lights will always be mounted on the horizontal, i.e. no upward tilt; Any external security lighting will be set on motion-sensors and short (1min) timers; As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.	spill into mitigation area. Few lights and all present operate with motion sensors.	
3.2	Mitigation area creation and planting: Ecological mitigation area to be created as shown on Drawing 2 (not Drawing 4 which shows different layout). Mitigation area seeded with a native wildflower mix. Suitable establishment of grassland areas to be confirmed and any failed areas to be re-seeded during the relevant defects period.	Across majority of mitigation area wildflower mix is well established. Small areas of sand/gravel (although these offer good invertebrate/reptile habitat).	Achieved – Continue management.
3.2.	Permanent Fence: The mitigation area will be fully secured during the operational stage to prevent any access into the established mitigation area.	Fence present between site and ecology mitigation area. Access possible off Oak Road.	Fence incomplete - Consider filling gap in fence off Oak Road and/or installing 'No Access' signage.
3.3/4.5	New hedgerow: Native hedgerow planting around all sides of the site as shown on Drawing 4. Suggested species ash, hazel, blackthorn, alder, willow, crab apple, hawthorn, rowan. Hedgerows should appear as follows: - Maximise botanical diversity and include flowering and fruiting species to provide food sources for faunal species - Maintain dense, healthy vegetated corridor for wildlife	Hedge present as indicated on drawing WXM-GA-01 (Conrad site Layout). Recently planted and growth limited (c.40cm). Some plants appear to have failed to establish (<10%). Majority	Achieved – Continue management. Assess establishment in 2023 and replace failures.

Eco Mit and Enh Scheme Section	Feature	Observation on site (20/05/22)	Action Required
	movement - Absence of exotic invasive weeds (e.g. Japanese Knotweed) - Hedgerows to be maintained as continuous vegetated corridor lacking gaps. - Diversity of woody species maintained with at least 4 woody species present per 30 m stretch. Contingency Measures (if needed) are included in Mitigation and Enhancement Scheme.	showing much new growth and appear healthy. Mix appears to adhere to requirements.	
3.4.	Hibernaculum: 1 no. Hibernaculum to be created: Minimum width of 2m, Minimum height of 1m, Constructed of a range of materials including bricks, logs, leaf litter, wood chippings and topsoil, Located within a sunny position in a vegetated area. Situated on well-drained soil, a shallow pit will be dug in which the materials will be placed inside. Exposed logs/rocks and visible gaps to enable faunal species to access the internal areas.	Not evident during site audit. Wildlife Trust had been instructed but had not installed it. Conrad Energy have confirmed subsequent installation by the Wildlife Trust June 2022.	Achieved – no action required. To be checked during 2023 ecological audit.
4.5	Brash pile creation: 2 additional discrete brash/wood piles to be maintained at the margins of the grassland area, to be replenished as required with arisings from hedgerow management works.	Present	Achieved – no action required.
4.1/4.4	Scrub control: Confirm open vegetation structure. Management prescriptions will aim to retain an open structure and	No evidence of scrub encroachment.	Achieved – Continue management.

Eco Mit and Enh Scheme Section	Feature	Observation on site (20/05/22)	Action Required
	prevent the site becoming 'scrubbed up' and dominated by denser vegetation, whilst denser corridors will be maintained around the boundaries and connecting with offsite habitats to provide cover and movement corridors. Additional scrub control to be undertaken by hand pulling or cutting as required during October to February to prevent excessive encroachment (occasional scattered shrubs allowed to develop to provide additional variety);		
4.1/4.5	Grassland should appear as follows: Confirm grassland matches this description. • Maintain a healthy diverse, open grassland sward. • Limit growth of ruderal weeds or extensive scrub encroachment. • Ensure uncut, tussock areas remain at all times to benefit reptiles and amphibians. • Absence of exotic invasive weeds (e.g. Japanese Knotweed). • Grassland habitat to cover at least 75% of the ecological area, including grass species and forbs, with a target of at least 15 species per m2. • Not more than 20% coverage by ruderal species such as Stinging Nettle, Docks, Thistles Encroaching scattered scrub (excepting boundary hedgerows/corridors) to comprise not more than 20% area	Adhering to requirements. Diverse and healthy sward present.	Achieved – Continue management.

Eco Mit and Enh Scheme Section	Feature	Observation on site (20/05/22)	Action Required
	Contingency Measures (if needed) are included in Mitigation and Enhancement Scheme.		
4.4.	Arisings removal: Arisings to be removed or placed in no more than 1-2 discrete piles at the margins for use by fauna while minimising loss of grassland area. Confirm no arisings evident across site except in piles.	Adhering to requirements	Achieved – no action required.
4.4.	Brash pile creation: Up to 2 additional discrete brash/wood piles to be maintained at the margins of the grassland area, to be replenished as required with arisings from hedgerow management works.	Present (as 4.5)	Achieved – no action required.
Biosecurity Risk Assessment	Invasive species monitoring: During operation, the site will be annually checked for invasive species by an Ecological Clerk of Work (ECoW). The ideal time of year to detect invasive species is between May and August as invasive plant species are easier to identify. JK Location previously identified (REC, 2018) was half way along northern boundary.	Report from Eco Control Solutions (18/08/2020) before site clearance confirmed that there was no Japanese knotweed found. Ecological audit (20/05/22) found no non-native invasive plant species.	Annual checks (May-Aug) for ongoing absence of Japanese knotweed and other invasive plants.

Summary of Outstanding Actions

1.9 The following measures require some further action other than routine maintenance:

- **Records of management and monitoring** - Ensure relevant instructions are made for ongoing management and records are made of actions undertaken.
- **Avoidance of fertilisers/pesticides** - Provide record of this measure being stipulated to landscape team.
- **Hedgerow Management** - Provide record of this measure being stipulated to landscape team.
- **Hibernaculum maintenance** - Ensure relevant instructions are made for ongoing management.
- **Ecological Monitoring** - Ensure relevant instructions are made for ecological audit in summer 2023 and 2026.
- **Temporary amphibian barrier fencing** – confirm whether this was ever installed.
- **Permanent Fence** - Consider filling gap in fence off Oak Road and/or installing 'No Access' signage.
- **Invasive species monitoring** - Annual checks (May-Aug) for ongoing absence of Japanese knotweed and other invasive plants.

Appendix 1 – Site photos (May 2022)

Photo 1 – Developed site and fence	Photo 2 – Ecology area
	
Photo 3 – Ecology area	Photo 4 – Ecology area
	
Photo 5 – Ecology area	Photo 6 – Ecology area
	

Photo 7 – Ecology area



Photo 8 – Ecology area



Photo 9 – New hedgerow



Photo 10 – New hedgerow



Photo 11 – Amphibian and reptile habitat



Photo 12 – Hibernaculum constructed by Wildlife Trust June 2022.





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