

Technical Report

Ecological Mitigation and Management Plan

Magellan Wrexham New Facility

Magellan Aerospace Ltd

November 2020



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1 Introduction

1.1 Terms of Reference

In September 2020 Atmos Consulting Ltd (Atmos) were commissioned by Magellan Aerospace Ltd to prepare an Ecological Mitigation and Management Plan in support of the planning application for the Llay Industrial Estate site in Wrexham, North Wales, hereafter referred to as the 'Site'. This report is to be read in conjunction with the Extended Phase I Habitat Survey (Atmos report ref: 56000/R1/Rev2).

The mitigation measures in this report are intended to provide sufficient assurance to Wrexham County Borough Council that the potential effects on great crested newt are capable of being mitigated via a development licence from Natural Resources Wales (NRW). As such, the intention is that any condition attached to the consent for the proposals is worded such that the mitigation measures should be carried out in accordance with this Ecological Mitigation and Management Report. This would allow a licence application to be submitted to NRW immediately upon consent without conditions needing to be discharged beforehand.

1.2 Site Location and Description

The Site is set within an industrial estate in Llay, Wrexham, North Wales and has a central national grid reference (NGR) of SJ 32923 56351. It is an area of vacant undeveloped land that is surrounded by and lies in between current industrial buildings and car parks. The wider area comprises of agricultural land and woodland.

1.3 Objectives

The objectives of this study were to;

- To describe the baseline ecological status of the Site in respect of habitats and protected species such as great crested newts *Triturus cristatus* (GCN) and dingy skipper;
- To consider the potential for effects on the terrestrial habitat for GCN and the food plant of the dingy skipper *Erynnis tages* in the context of the development of the Site; and
- To set out mitigation and enhancement measures to minimise these effects to an acceptable level

2 Legislative Context

Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, (the Habitats Regulations) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites ('Natura 2000 Sites termed Special Areas of Conservation SACs or Special Protection Areas (SPAs). The Regulations designate these sites as being important for either habitats or species (listed in Annexes I and II of the Habitats Directive respectively).

Wildlife and Countryside Act 1981

National legislation for the special protection of selected species is provided in the Wildlife and Countryside Act 1981, as amended (WCA) and the Habitats Regulations.

Under Section 1(1) and 1(2) of the WCA, all British bird species, their nests and eggs (excluding some pest and game species) are protected from intentional killing, injury or damage. Under Sections 1(4) and 1(5), special penalties are applied to bird species included in Schedule 1 of the WCA and protection is extended for these species to disturbance to birds whilst building, in or near a nest and disturbance to dependant young. Schedule 5 provides special protection to selected animal species other than birds, through Section 9(4) of the WCA, against damage to "any structure or place which any [wild animal included in the schedule] uses for shelter and protection" and against disturbance whilst in such places.

Non-native invasive plants are listed in Schedule 9 of the WCA which makes it an offence to spread or enable them to be spread in the wild. The list includes species such as Japanese knotweed *Fallopia japonica* and Himalayan balsam *Impatiens glandulifera*.

A number of animals, known as European protected species (EPS), are provided full protection through inclusion in Schedule 2 of The Habitats Regulations. The Habitats Regulations provide protection against deliberate disturbance to those animals wherever they are present and provides tests against which the permission for a development (that may have an effect on a Schedule 2 protected species) must be assessed before permission can be given.

In addition to species protection, the WCA and Habitats Regulations also set out requirements/procedures for the notification, designation and protection of a range of statutory site designations in order to preserve important nature conservation resources.

All public authorities have a requirement to pay due regard to the conservation and enhancement of habitats and species through Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). Section 41 states, "Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of

those functions, to the purpose of conserving biodiversity". To this end, Section 41 of the NERC provides for the establishment of a list of habitat and species that are considered to be of "principal importance for the conservation of biological diversity in England".

Great Crested Newt

Great crested newt *Triturus cristatus* are afforded full statutory protection as a European protected species listed on Schedule 2 of The Conservation (Natural Habitats, &c.) Regulations 2017 (1994, as amended), which transpose into British law the European Community's Habitats Directive (92/43/EEC).

Under the terms of Regulation 39(1), with certain exceptions, a person commits an offence if he/she:

"(a) deliberately captures, injures or kills any [a great crested newt];

(b) deliberately disturbs wild [great crested newts].

(1A) For the purposes of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely —

(a) to impair their ability –

(i) to survive, to breed or reproduce, or rear or nurture their young; or

(ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or

(b) to affect significantly the local distribution or abundance of [great crested newts];

(c) deliberately takes or destroys the eggs of [a great crested newt]; or

(d) damages or destroys a breeding site or resting place of [a great crested newt]."

It is also an offence under Regulation 39 to keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild Great crested newt, or any part of, or anything derived from one.

All of the above protections apply regardless of the stage of the life of the animal in question.

Protection of great crested newts' is also provided for in the Wildlife and Countryside Act 1981, as amended. The great crested newt is listed on Schedule 5 of the Act, and is afforded partial protection under the terms of section 9(4)(b) and (c) and (5). This makes it an offence if any person:

9(4) "... intentionally or recklessly ... (b) ... disturbs any [great crested newt] while it is occupying a structure or place which it uses for shelter or protection; or (c) ... obstructs access to any structure or place which any [great crested newt] uses for shelter or protection."

9(5) "... (a) sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead [great crested newt], or any part of, or anything derived from, such an animal; or (b) publishes or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things".

There are provisions in the above legislation for the licensing of activities to facilitate development that would otherwise constitute an offence. However, the statutory

agency Natural Resources Wales (NRW) advises that the requirement for licensing should be carefully considered by developers, on a site/activity-specific basis, and recommends consideration of non-licensed mitigation such as reasonable avoidance measures relating to timing of works and sensitive site clearance to minimise potential for adverse impacts to this species where this can be achieved.

3 Ecological Baseline

An Extended Phase I Habitat Survey and Desk Study was carried out in March 2019, with an updated survey in June 2020 and report in September 2020 (Atmos report ref: 56000/R1/Rev2). The findings are summarised below with focus on features where potentially significant effects were identified.

3.1 Habitats

the habitats recorded on the Site were semi-improved grassland, scrub and scattered trees.

3.2 Protected Species

Based on the site visits and desk study, it was noted that species of conservation concern that could be affected by the proposed development were great crested newt (GCN) and the dingy skipper butterfly.

3.2.1 Great Crested Newt

The Site is located approximately 300m north east from Llay Colliery, a known GCN population with breeding ponds. There are no suitable breeding ponds on the Site itself, but there is suitable connected terrestrial habitat for GCN by the way of dense scrub and rough stony ground.

The data search returned 185 great crested newt records within the 2 km buffer and none from the Site itself.

Off-site to the south west of the Site, there is an area that connects to the former Llay Colliery which is known to support great crested newts, it was surveyed in 2018 and it was found to have a peak count of 46 adult GCN within the waterbodies.

Although the proposed development Site does not offer any potential breeding habitat, it does provide suitable terrestrial habitat for the species and, by virtue of the proximity of the Site and suitable connecting habitat, on a precautionary basis it is therefore assumed that they are likely to be present on the Site.

Population Size Class Assessment

Following discussions with The Senior Species Officer from Natural Resources Wales (NRW)¹, it is considered that the off-site former Llay Colliery supports a medium population of GCN (peak count between 10 and 50 adults).

Accordingly, mitigation measures appropriate to a medium-sized population are considered within this scheme.

¹ Phone call between Alex Hatton (Atmos) and Matthew Ellis (NRW) 5th October 2020

3.2.2 Dingy Skipper

The desk study identified records of the Species of Principal Importance (SPI) dingy skipper from 2013 approximately 400m from the Site. The larval foodplant for this species is bird's-foot trefoil *Lotus corniculatus*. Effort was made during the field surveys to search for this species and it was found present in large areas on the Site in June 2020.

The development of the Site will result in the loss of the bird's-foot trefoil plants, and therefore could affect the lifecycle of the dingy skipper in the absence of mitigation.

3.2.3 Other Species Groups of Conservation Interest

The Site also has high potential to support breeding birds with areas of dense scrub and trees.

Records of reptiles were returned during the desk study, with the closest being grass snake. Although the dry habitats on Site are less suitable for grass snake *Natrix natrix*, they are potentially suitable for other reptile species including common lizard *Zootoca vivipara* and slow worm *Anguis fragilis*. The mitigation measures set out for great crested newt will also ensure that any reptiles present are protected from harm during construction and that compensatory habitat is provided.

4 Development Scheme

4.1 Scheme Description

The development of the Site will comprise of one large factory building with parking spaces and vehicular access around the building (as shown in Figure 1).

There will be small areas of managed grassland at the edges of the Site around the car park. Additional trees will be planted at the northern boundary of the Site for screening and to add landscape interest. The existing stone and soil bund at the south of the Site will be retained and enhanced as a mitigation area for GCN and dingy skipper.

Where possible, the Site drainage will be designed to avoid the use of kerbs, gully pots and pipes to minimise the risk of GCN becoming trapped. Where drainage features are required, these will be an amphibian friendly specification.

4.2 Timescales

The following timescales are indicative, based on the anticipated progress of the scheme through the planning system. A detailed timetable will be prepared as part of an EPS GCN Development Licence method statement, where an indicative timescale is included below:

- Planning permission anticipated by the 15th February 2021;
- GCN Licence submitted to NRW mid-February following permission, to include updated timescales;
- GCN licence received by April 2021; Amphibian fencing installed in April 2021 as per alignment illustrated in Figure 2;
- Long term mitigation area prepared and seeded, as shown in Figure 2;
- 30 nights trapping and translocation commences in April 2021 with any GCN moved to receptor area, completed in May 2021;
- Construction commences in May 2021;
- Fencing between temporary receptor site and mitigation area opened up, May 2021.

5 Mitigation and Enhancement Scheme

5.1 Receptor Site details

The Site design includes a permanent mitigation area for great crested newt and dingy skipper. However, it will need landscaping and planting to be carried out in order to optimise its suitability for the species. Therefore, the permanent mitigation area will be included in the Site amphibian fencing to trap out any great crested newt present prior to the landscaping works.

Accordingly, it is necessary to have a temporary receptor site in place for any captured great crested newts to be placed within a suitable safe habitat whilst the Site is trapped out

These two areas are described below and illustrated in Figure 2.

5.1.1 Temporary Receptor Site

A temporary receptor site, for translocation of any GCN caught on the Site has been identified at the nearest point to the Llay Colliery ponds within. The temporary receptor site will be enhanced to provide suitable terrestrial habitat for GCN with the addition of logs, carpet tiles and tin sheets. There will be no fencing to the south of this area, so the great crested newts have free movement to/from the off-site Llay Colliery.

Any newts captured in the grassland and scrub habitats on Site during night-time torchlight surveys will be placed in the temporary receptor site allowing free movement towards the Llay Colliery breeding ponds and terrestrial habitat. Any discovered during refugia checks – whether by day or night – will be placed under similar refugia in the temporary receptor site. Animals found in pitfall traps at dawn, or during the course of destructive searches (if required), will also be placed under these refugia.

The temporary receptor site will eventually be part of the mitigation area. Therefore, once the mitigation area has been prepared, the fencing between the temporary receptor area and mitigation area will be removed to allow any GCN to freely move through to the mitigation area.

5.1.2 Permanent Mitigation Area

A further area of land, referred to as the bund, has been selected for permanent habitat creation and enhancement as compensation for the land lost on Site. Once the creation and enhancement works are completed the fencing will be removed from the area to allow the newts to return naturally.

Further details on this mitigation area are provided below.

5.2 Great Crested Newt Capture & Exclusion

The capture and exclusion of great crested newts from the Site and mitigation area will be carried out using a combination of the following methods:

- Temporary amphibian fencing around the Site boundary;
- Creation of a temporary receptor site;
- Drift fencing at right angles from the amphibian fencing to aid trapping;

- Pitfall traps at approximately 10m intervals where possible given ground conditions;
- Artificial refuges (increased in density if/where pitfall traps cannot be installed); and
- Night-time torch-light surveys

For the protection of great crested newts during construction, fencing will be installed around the Site boundary to prevent any newts from accessing the construction area.

The alignment of the fencing is indicated on the plan in Figure 2 and the specification proposed will be as per NRW guidance. The fencing will be 'one-way', set at an angle allowing GCN to leave the Site but not to re-enter.

Due to the current timing of the licence application and planning application timescales, it is anticipated that the great crested newt trapping exercise will commence in spring which is at the start of the GCN active season. A weather station will be set up on-site to monitor suitable trapping nights to maximise the capture effort and also temporarily cease any efforts if weather does become unsuitable.

The trapping will be carried out in accordance with guidance (www.gov.uk). Whilst typically a medium-sized population would require 60 trapping nights, following a consultation with NRW² 30 suitable trapping nights was agreed on the basis of the distance of the Site to the off-site population, suitable off-site habitat within the immediate and intermediate habitat zones and narrow connectivity of the Site to the main population. It is anticipated 30 nights trapping will be carried out or until no captures have been made for a period of five suitable trapping nights.

Hand searching by an accredited agent or the Named Ecologist will be undertaken prior to and on the day fencing is installed to find and capture any amphibians from within the area and to translocate them to the temporary receptor site to ensure that they are not harmed.

Bucket (pitfall) traps will be set into the ground at an average of 5m intervals, with artificial refugia at a rate of one each 5m. As the ground conditions in the working area are likely to be comprised spoil and rubble, it may not be possible to install pitfall traps at exactly 5m. Where the ground conditions are unfavourable, the density of refugia would be increased and pitfall traps installed where possible. Capture rates will be accelerated by using night-time torch surveys to help to check for and clear newts, if any are present.

A range of appropriate logs, e.g. covering fence checks, all forms of amphibian capture and removal, and third party compliance visits will be maintained throughout the licensing period, in order to document activities carried out on site and demonstrate compliance with the performance indicators described in a Method Statement.

5.3 Great Crested Newt Habitat

5.3.1 Mitigation Area: Modification, Enhancement & Creation

The bund at the south of the Site will be used as the mitigation area. The area will be enhanced to support terrestrial newts by creating appropriate refuges and

² Phone call between Alex Hatton (Atmos) and Matthew Ellis (NRW) on 05th October 2020

hibernaculas (as shown in Figure 3). Once the area has been cleared of newts, the area will be visually checked by an accredited agent or the Named Ecologist or accredited agent prior to strimming of vegetation at approximately 150mm high, it will then be left overnight and then cut to ground level. The bund will then be covered with topsoil and areas of logs piles created. The soil will be sown with a wildflower meadow mix (further details in Section 5.4). When the area is established and suitable for terrestrial newts, the southern part of the fencing will be removed to allow newts to re-enter the area.

5.3.2 Habitat Management and Maintenance

To ensure the bund habitat remains in a suitable condition it should be mostly be left unmanaged. Although it would require one cut per year, this should be done using hand tools such as a strimmer to the height of 150mm and all arising should be removed from the area.

5.3.3 Monitoring

There should be yearly checks in the summer to ensure that the mitigation area remains suitable for terrestrial GCN, that the bund is re-establishing, and the hibernacula are in good condition. This should be for two years, however, be increased if it is not suitable habitat for GCN.

5.3.4 Long-term Site Safeguarding

The Site of the factory will be owned and occupied by Magellan Aerospace Ltd. They will therefore be capable of managing and maintaining it in accordance with the requirements of the GCN licence.

5.4 Toolbox Talk

The Named Ecologist or Accredited Agent will attend site prior to the commencement of works to induct all site staff and deliver a toolbox talk setting out the requirements under the licence.

5.5 Ecological Compliance

The Named Ecologist or Accredited Agent will be present during the works in order to provide supervision and input as necessary and ensure compliance with the Method Statement.

Ecological Compliance Audits will be included within the licence Method Statement, with the following Key Performance Indicators (KPIs) for GCN included:

- Destruction of potential great crested newt terrestrial habitat on the site is not carried out until an EPS licence is granted by NRW and the site has been declared GCN free by the named Ecologist or an Accredited Agent.
- Building work is carried out according to the procedures specified in the licence method statement.
- Replacement GCN habitat is created as per the EPS licence method statement.

The Named Ecologist or Accredited Agent will provide the necessary input during the works and will provide a report to NRW on completion of the replacement habitat including the grid reference, if it differs from the Method Statement.

5.6 Dingy Skipper

5.6.1 Mitigation Area: Modification, Enhancement & Creation

The Site has potential to support dingy skipper as there are records nearby and its larval foot plant is present on Site. The bund to the south of the Site is to be enhanced as mitigation and compensation for this species also. The bund will be enhanced in the following ways:

Translocation of bird's-foot trefoil plants from the Site

Each dingy skipper butterfly larva spins leaves together to form a hibernaculum in which to spend the winter. Pupation occurs the following spring in the hibernaculum, without further feeding. Therefore, it is possible that larva may be present on the plants on Site and its clearance could affect the ability of the larva to survive and pupate in the spring.

The Site will be hand-searched for the host plants as soon as possible and carefully moved to a safe location. It is proposed that the translocated host plants be temporarily moved to a crate within the site. This will be under some of the existing scrub to the edge of the site to protect it from the elements. When the mitigation area has been seeded, the plants will carefully be spread onto the bund to re-establish.

Following the trapping of the great crested newts, the bund will then be ready to be enhanced (as mentioned in Section 5.3). The translocated bird's-foot trefoil plants will be carefully planted into the bund, which will be sown with a wildflower-rich grassland mix such as the following:

common bird's-foot trefoil *Lotus corniculatus*, horseshoe vetch *Hippocrepis comosa*, greater bird's-foot trefoil *Lotus pedunculatus*

and

Heritage Early Flowering 80% Low Maintenance Grass Seed which contains species such as; common bird's foot trefoil, salad burnet *Sanguisorba minor*, meadow buttercup *Ranunculus acris*, red campion *Silene dioica*, white campion *Silene latifolia*, cat's ear *Hypochaeris radicata*, red clover *Trifolium pratense*, cowslip *Primula veris*, common daisy *Bellis perennis*, oxeye daisy *Leucanthemum vulgare*, common dandelion *Taraxacum officinale*, field forget-me-not *Myosotis arvensis*, black medick *Medicago lupulina*, common mouse-ear *Cerastium fontanum*.

5.6.2 Habitat Management and Maintenance

As previously mentioned, the bund will be required to be cut once a year. August would be the optimum time to allow the bird's-foot trefoil go to seed and to avoid the egg laying of the dingy skipper. Again, this should be done with hand tools and the arising should be removed from the area to prevent nutrient enrichment.

5.7 Reptiles

Due to the potential suitability of the Site for reptiles, the Site clearance measures above will also include reptiles as a target species group and any caught or observed on Site will be moved to the temporary receptor area.

The permanent mitigation area will also be suitable for reptiles in the long term.

5.8 Breeding Birds

As planning permission is anticipated before the breeding bird season, it is proposed to remove vegetation cover that may be used by nesting birds prior to receiving a GCN licence. This approach has been discussed with NRW and will be carried out with hand tools and vegetation will not be cut below 30cm. No vehicles will enter the Site at this stage; all works will be on foot to prevent compaction of the ground and rutting by tyres. The vegetation removal will take place out of the breeding bird season (March to August inclusive).

Appendix A. Figures

A.1. Figure 1. Proposed Layout

A.2. Figure 2 Great Crested Newt Mitigation and Receptor Sites

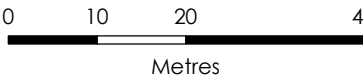


Magellan

Magellan Aerospace
UK Limited

GCN mitigation fencing

- Key
- Site boundary
 - GCN fencing
 - Temporary GCN fencing - to be removed after completion of mitigation area
 - Mitigation area
 - Temporary relocation area

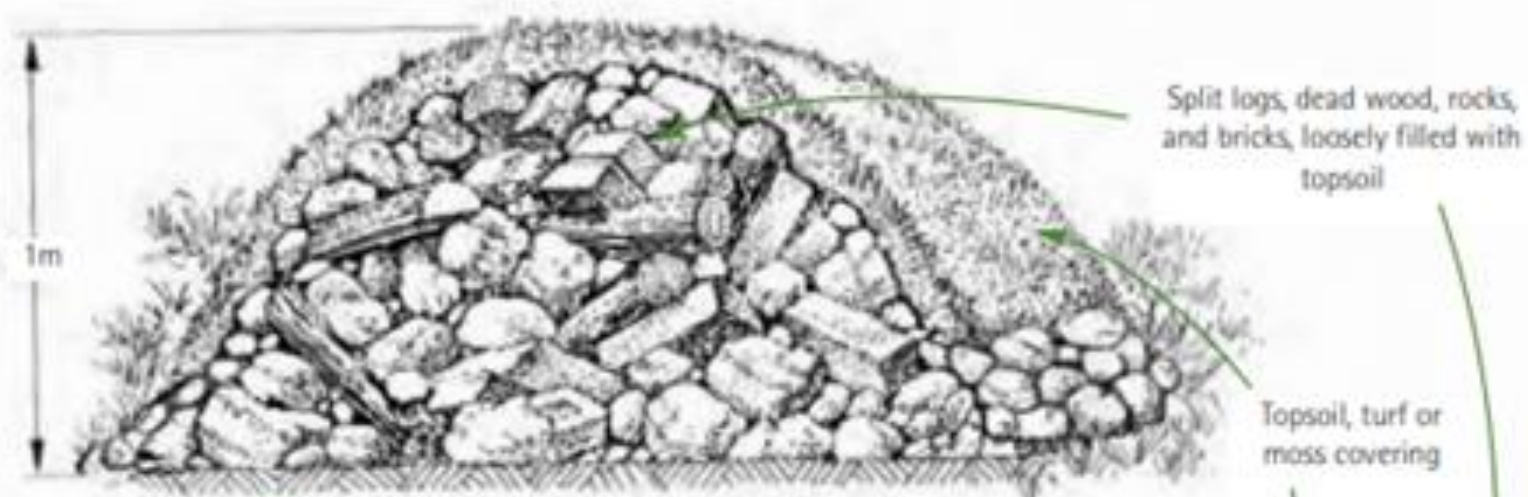


Scale @ A3:
1:850



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A.3. Figure 3 GCN hibernacula



A



Constructed on gentle slope
to prevent flooding

