

Date: 3<sup>rd</sup> September 2020

Dear Jonathan,

**Ecological comments**

Planning Application No: **LCC/2019/0028**

Proposals: **Proposed land restoration and regrading works using inert material including new access**

Location: **Parbold Hill Landfill Site**

Thank you for your consultation in respect of the above planning application.

This the first opportunity I have had to review the proposals and to provide comments. I note that you have not received any previous ecological advice.

Please note these comments are intended as advice solely to inform your decision-making, having regard to the requirements of relevant biodiversity legislation, planning policy and guidance. Lancashire County Council Ecologists do not support or object to planning applications.

I have reviewed all the documentation submitted with the planning application along with comments from consultees available on the planning portal.

**LEGISLATION AND PLANNING POLICY**

In determining this application, the requirements of the following legislation, planning policies and guidance should be addressed:

- The Conservation of Habitats and Species Regulations 2017 (as amended)
- The Wildlife and Countryside Act 1981 (as amended)
- The Natural Environment and Rural Communities Act 2006
- The Protection of Badgers Act 1992
- The National Planning Policy Framework 2019 (NPPF)
- Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System (DEFRA 01/2005, ODPM 06/2005)
- Environmental Protection / Nature Conservation policies of the Local Plan

The NERC Act 2006 states that 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 (Section 40).

ODPM/DEFRA Circular 01/2005 states that UK Biodiversity Action Plan Priority Species and Habitats (Species and Habitats of Principal Importance, NERC Act 2006) are capable of being a material consideration in the making of planning decisions.

The National Planning Policy Framework 2019 (NPPF) states that:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.
- In order to achieve sustainable development the planning system has three overarching objectives including an environmental objective to contribute to protecting and enhancing our natural environment, including helping to improve biodiversity (para 8).
- Planning decisions should contribute to and enhance the natural environment by protecting and enhancing sites of biodiversity; recognising the wider benefits from natural capital and ecosystem services; minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks (para 170).

### **SUMMARY** (discussed in more detail below)

The Urban Green *Ecological Assessment* appears to significantly undervalue the ecological value of the site and does not adequately establish the likely ecological impacts. The *Ecological Assessment* concludes that the proposed remediation works will have a minimal effect on the local ecology. This does not appear to be the case.

Based on the information available, the site appears to be of significant biodiversity value:

- As a whole it is a large 11 ha site supporting a mosaic of semi-natural habitats.
- Although the site is not a Biological Heritage Site it appears to meet a number of the selection criteria.
- It is likely to be of value to a range of species, including populations of breeding birds, foraging barn owl, amphibians, hedgehogs and cinnabar moth.
- The site forms part of a continuous unit with other semi-natural habitats in the area and forms part of the wider ecological network.
- The site is also currently undisturbed, which further increases its likely biodiversity value.

The current proposals would result in a direct loss of a significant area of the site, approximately 4ha. In addition it is not clear whether there would be indirect impacts on the remaining habitats and across the site as a whole in the short and longer term. The exact nature and scale of the impacts have not been established.

Although in theory the direct loss could be temporary and habitats of good biodiversity value could be re-established on the area to be affected once remedial works are complete; the applicant has submitted little information to demonstrate or show a commitment to re-establishing habitats of high biodiversity value. In addition, it is not clear that the site as a whole would be protected or maintained to maximise its biodiversity value in the longer term. In fact the submitted information suggested that the opposite may be the case. The applicant has not demonstrated that impacts would be adequately avoided, mitigated or compensated for.

## **RECOMMENDATIONS**

### **The following matters will need to be addressed before the application is determined:**

- Lancashire County Council will need to be satisfied that all impacts are unavoidable and that all alternatives that may result in lesser ecological impacts have been explored.
- The exact scale and nature of the likely impacts across the site as a whole are not clear to me and it appears there would be wider impacts outside the area to be directly affected, both in the shorter term (e.g. through runoff and wider works) and the longer term (e.g. through changes in public access and use / management of the site as whole). Accordingly the scale of the impacts, including on habitats and protected and priority species (including on great crested newts (European Protected Species)) and the likelihood of offences are not clear to me.

The applicant should be required to submit further information to clarify the impacts. Impacts should be quantified. The applicant should demonstrate that habitats to be retained would be adequately protected in the shorter term and that the future use and management of the site as a whole would result in biodiversity value being retained and enhanced.

Lancashire County Council should be clear that the scale and nature of the impacts resulting from the proposals have been sufficiently established and that they have sufficient information to enable a decision to be made with sufficient regard to the Habitats Directive (discussed below).

- Lancashire County Council should be satisfied that there would be adequate compensation for all unavoidable impacts. The applicant has not submitted information to demonstrate that this would be the case.

Lancashire County Council should be satisfied that habitats of high biodiversity value would be re-established in the areas to be directly affected and that the site as a whole would be managed to maintain and improve biodiversity value in the long term. Lancashire County Council may also wish to seek addition compensation to ensure all impacts are fully offset, offsite or, as a last resort, a commuted sum.

If the above matters can be adequately addressed and Lancashire County Council is minded to approve the above application, **planning conditions (or Section 106 agreements) are recommended to address the following matters:**

- Prior to commencement of any works, including any site clearance and site preparation works, a Construction Environment Management Plan (or similar) shall be submitted to Lancashire County Council for approval in writing. The plan shall include details of pre-works surveys and all mitigation measures to demonstrate ecological impacts will be minimised and offences avoided. The plan shall include:
  - Role, responsibilities and the operations to be overseen by an appropriately competent person (e.g. ecological clerk of works / on site ecologist).
  - Adequate protection of all trees, shrubs and hedgerows being retained in or adjacent to the application area during the works, including the use of appropriate protection fencing, in accordance with *BS5837: 2012 Trees in relation to design, demolition and construction*:

*Recommendations* or in accordance with the recommendations of a suitably qualified arboriculturalist.

- Detailed surface water management plan and pollution control measures.
- Measures to demonstrate habitats to be retained on site would be adequately protected from the works.
- Pre commencement survey for the presence of badgers and their setts with mitigation measures as required.
- Measures to ensure that impacts on nesting birds are avoided, including the avoidance of any site clearance works during the bird nesting season (March to August inclusive)
- Methods of translocation of Knotted Pearlwort and re-establishment on the site
- Invasive species method statements demonstrating that works would avoid the spread of invasive species (and offences).
- Methods to demonstrate impacts on amphibians (including Common Toad and Great Crested Newt), reptiles, hedgehogs and brown hare would be avoided, including careful site clearance and prevention of killing/injury during the works.
- Method statement to demonstrate the retention of populations of Cinnabar Moth and its host species (Common Ragwort) on site.

The approved details shall be implemented in full.

- Prior to commencement of any works a Habitat Establishment and Maintenance Plan (or similar) shall be submitted to Lancashire County Council for approval in writing. The plan shall demonstrate that habitats of high biodiversity value will be re-established on areas directly affected. The plan shall include details of:
  - Soils to be used (including phosphorus and nitrogen levels and pH)
  - Ground preparation
  - Cultivation
  - Seeding/planting mixtures, sizes, sowing rates / planting densities
  - Establishment methods and timing with contingency measures
  - Target habitats types and areas with maps
  - Aftercare methods
  - Maintenance period

All species used shall be British native origin and appropriate to the locality.

The approved details shall be implemented in full.

- Prior to commencement of any works, including any site clearance and site preparation works, a long term management and monitoring plan for the site as a whole shall be submitted to Lancashire County Council for approval in writing. The plan shall demonstrate that biodiversity value of the site shall be maintained and enhanced. The plan shall include:
  - Outline of baseline biodiversity value of site
  - Aims and objectives of management
  - Details of management prescriptions, rationale, location of management, timings and frequencies
  - Summary work programme
  - Maps
  - Ongoing invasive species control and eradication
  - Litter removal

- Habitat monitoring methodology, timing and frequencies of retained and established habitats
  - Scope for updates to management plan following monitoring results
  - Duration of management plan
- The approved details shall be implemented in full

- No external lighting associated with the development shall be installed without the prior approval in writing from Lancashire County Council.

## **JUSTIFICATION**

### **Habitat value of the site and likely impacts**

#### **Value of the site**

The applicant has submitted a phase 1 habitat survey of the site that was carried out on 9th April 2019 (*Ecological Assessment*, Urban Green). As highlighted in the report (section 3.2) this is early in the growing season when most plants would not yet have started to put on much growth and would therefore not be visible. The *Handbook for Phase 1 Habitat Survey* (JNCC, 2010) states that the phase 1 field season should be considered as starting in late April/early May in the north of England. An early April survey is therefore suboptimal and outside the recommended survey period. *The Ecological Assessment refers to a survey of the site carried out in June 2016 (by Solum Environmental). I have not seen a copy of this report.*

The CPRE commissioned habitat and plant survey of the site was carried out by *Tyrer Ecological Consultants Ltd on 30<sup>th</sup> July 2019* (*Ecological Appraisal in Relation to Habitats and Vegetation*). This is within the optimal survey period.

Based on the timing of the surveys, and also the apparent experience and botanical knowledge/expertise of the surveyors, *I consider the Tyrer survey to carry more weight and be a more accurate reflection of the habitats and botanical value of the site.*

The site appears to be of significant biodiversity value.

The site is approximately 11ha and represents a significant area of semi-natural habitat. Since the landfill was capped almost 30 years ago the site appears to have been left to develop naturally, unmanaged and undisturbed, and now supports a mosaic of semi-natural habitats. Habitats on the site include floristically diverse marshy grassland / swamp across the majority of the site (recorded as tall ruderal during the Urban Green survey), with patches of scrub, neutral semi-improved grassland to the north of the site and trees to the west and south. Semi-natural woodland borders the site to the south.

Without any management in the long term the site is likely to ultimately scrub over and return to some woodland canopy coverage. However this does not mean its ecological value would decline (it may just alter) and this process would likely take a significant period of time.

Unfortunately the Tyrer Ecological Appraisal provides one species list for the whole site (rather than divided into separate habitats) and did not record species frequencies. However based on the species list and photos provided it appears that the site has good floristic diversity.

The site appears to have impeded drainage across much of the site (e.g. *Recent attempts to clear vegetation required the use of tracked excavators and even then movement around the site proved difficult with excavators getting stuck* (Pg 21, *Restoration Landform Maintenance Scheme*, Terra Consult)). It is this wet waterlogged nature which has given rise to the habitats of high biodiversity value on the site.

Based on the available information the site appears to meet a number of the Biological Heritage Site (Lancashire's county wildlife sites) selection criteria, being an site of artificial origin with a large extent of semi-natural habitats in West Lancashire, including floristically diverse swamp/fen habitat. The marshy grassland/swamp/fen habitat is likely to be a Habitat of Principal Importance.

The site also forms part of a continuous unit with other semi-natural habitats in the area, including the wooded quarry to the south and along the river/canal/railway corridor, thus forming part of the wider ecological network.

The site is also currently undisturbed, with restricted public access and management activities. This will increase its value for species such as breeding birds and has also helped to protect the habitat from disturbance and degradation, such as through dog fouling.

The value of the site for species is individually discussed below.

It should be acknowledged, that a number of invasive species are present on the site (discussed below), which threatens its long term ecological value should these species spread and become more dominant across the site.

### **Direct impacts**

The works proposed includes the creation of a new access and vehicle turning and tipping area, and the importation of inert infill material which will be spread across the northern part of the site. The proposals would result in a loss of a significant area of the site, approximately 4ha in total of neutral semi-improved grassland, scrub, marsh/marshy grassland and swamp. I understand that the scale of the proposed infill has been reduced from the original proposals.

### **Indirect impacts**

In addition to the area directly impacted by the footprint of the works, it appears that there may be wider indirect adverse impacts across the site. The *Supporting Statement* states that any existing habitat will remain untouched within the areas outside of the proposed restoration (para 4.39), however this does not seem to be the case.

### Runoff

The infill material is to be tipped and spread across the north and north-west areas of the site. The *Supporting Statement* (para 4.35) states that the delivery of material to the site is anticipated to take approximately 55 weeks, with land restoration work to take between 12 and 18 months to complete. The re-establishment habitats of high biodiversity value across the remediated area would take time. A quick growing cover sward is undesirable and counter to the aims of creating a species rich sward. Therefore there will be bare soils/infill material present for a significant period of time including through periods of high rainfall and the winter months.

The general nature of the site slopes from the high point in the north towards the south and I therefore have concerns about soils/suspended solids moving down slope and covering/damaging the areas of retained habitat down the slope from the infill area.

The *Restoration Maintenance Scheme Environmental Risk Assessment* (Terra Consult, Oct 2019) highlights that *disturbed soil may be mobilised from the surface during period of heavy rainfall (para 2.5.6)* and the *Restoration Landform Maintenance Scheme* (Terra Consult, Oct 2019) states that *the primary concern with regard to surface water quality is the transport of suspended solids as a result of the placement of soils (section 7.10)* and that *the surface water from the majority of the site will flow towards the drainage ditch in the south of the site (section 8.2)*.

The *Restoration Maintenance Scheme Environmental Risk Assessment* is written based on the assumption that no sensitive habitats were identified within 500m of the site, as the ecological assessment carried out by Urban Green concluded that the proposed remediation works will have a minimal effect on the local ecology (para 2.8.5). As discussed above this is incorrect. There are in fact sensitive habitats (i.e. floristically diverse marsh/swamp (likely Habitat of Principal Importance)) immediately adjacent and down slope of the proposed works area.

Both Terra Consult documents highlight the need to control suspended solids through operational procedures and physical control measures and monitoring. However the methods of control appear to be based on preventing suspended solids from leaving the site by managing surface water through implementation of perimeter ditches (e.g. section 8.2, *Restoration Landform Maintenance Scheme*). **This would not protect habitats on the site.** In fact the Surface Water Management Plan (SWMP) would actually utilise established areas of vegetation on site to help filter out suspended sediments (section 8.2) and therefore sensitive habitats downslope of the infill area would seem likely to be damaged by the proposed works.

#### Wider works

In addition to the infill operations, it appears that wider works are proposed within the site. The *Restoration Landform Maintenance Scheme* states that *It is proposed to utilise the improved site access created to facilitate the import of materials to improve access to the gas wells and pipework in site prior to, during and after the proposed restoration fill activities (section 6.4)*. **I am not clear what areas would be affected or the scale and the nature of the impacts.**

#### Future use and management of the site

The future use and management of the site is unclear. The applicant has not submitted information to demonstrate that the proposals would not result in the long term loss of the biodiversity value of the site. In fact the submitted information suggests that the opposite would be the case.

The *Supporting Statement (rev B June 2020)* does not acknowledge that the site has any biodiversity value, presumably based on the Urban Green *Ecological Assessment*. The *Supporting Statement* repeatedly states that the site is of no current use: i.e. it is a large usable space largely devoid of vibrant natural vegetation / the current condition eliminates future sustainable use of the site / the site is inaccessible to the public / the site unsuitable for any agricultural purpose / the site currently offers no benefit to the current operator or the to the public / the site cannot currently be used for agricultural operations / the site has become overgrown / the limited vegetation on the

site does not provide an encouraging habitat environment / the vegetation across the site is sparse and is unlikely to provide a thriving ecological habitat.

The *Supporting Statement* indicates that the applicant wishes to gain benefit from the site by using it for agricultural or amenity use: i.e. the works associated with this statement involve the regrading of the existing site so that future sustainable uses can be explored / the purpose of the proposed works is .....and obtain a sustainable future use for the site / the regrading of the site will allow for future use, as either agricultural land or would have been publically accessible space, under the original masterplan proposals / cannot currently be used for its originally envisaged future agricultural operations / the applicant shall follow the government's "Guide for reclaiming mineral extraction and landfill site to agriculture" for the proposed restoration of the site, delivering a long-term sustainable use for the site / the applicant will ensure that this visitor experiences are improved through the land restoration works.

Whilst extensive grazing of the site by small numbers of native cattle may be beneficial, this would likely not be economically beneficial and I suspect that the applicant envisages a more intensive agricultural usage. Such use would be damaging to the biodiversity value of the site. In addition the site is currently undisturbed by people and dogs due to limited public access. Increasing public access would lead to increase disturbance, potential degradation of habitats and displacement of species using the site.

The future usage as a result of the proposals of the site is not clear and it is not clear that there would not be long term adverse impacts on the biodiversity of the site.

Lancashire County Council should be satisfied that the proposals would not result in degradation of the site and that future use and any management would maintain and enhance the biodiversity value of the site. The applicant has not submitted information to demonstrate that this would be the case.

The applicant has not demonstrated that adverse impacts would be restricted to the area directly affected. In fact it appears that there would likely be wider impacts across the site as a whole.

The applicant should be required to submit information to clarify the likely impacts across the site as a whole. Impacts (both direct and indirect) should be quantified. Prior to determination of the application Lancashire County Council need to be satisfied that likely impacts have been fully established.

#### **Avoidance of ecological impacts, mitigation and compensation**

The site of significant biodiversity value both alone and forming part of a wider ecological network.

Direct and indirect impacts as a result of the proposals should firstly be avoided both in the short and longer term. I am not able to comment on whether or not direct impacts are necessary or if there are other less harmful options. All options should be fully explored to establish which would be least harmful to biodiversity. Lancashire County Council should be satisfied prior to determination of the application that all impacts have been established and that they are unavoidable.

If impacts are unavoidable then they would need to be adequately mitigated/compensated for.

There would be a direct loss of approximately 4ha of semi-natural habitats, although this area also includes a stand of Japanese Knotweed. There may also be wider indirect impacts (discussed above) and if unavoidable these would also need to be mitigated and compensated for. In order to assess what compensation is required the level of impacts needs to be clear.

There is limited information in the submitted documents on the compensation that would be provided. It appears that restoration of the area to be directly affected is proposed, although the information does not demonstrate that habitats of any biodiversity value would be established. In addition (as detailed above), there is no information submitted to indicate that the site would be managed to maintain and improve its biodiversity value in the longer term.

The only references to any habitats being re-established on areas directly affected is a note on the revised masterplan (entitled *Land Restoration Proposals: New Highway Access and Tipping Area*) stating that land will receive a top soil coating with planting to include meadow plants and wildflowers and in the *Supporting Statement* which states that areas directly affected will receive a top layer suitable for planting. This shows a lack of clarity, understanding and detail of what target habitats would be established and how this would be achieved. The *Supporting Statement* states that following completion of the land level restoration works the existing top soil shall be returned to the site, with the site permitted to recover to its current state naturally (para 8.16). This is not sufficient to demonstrate that any habitats of biodiversity value would be established.

It is proposed that areas where topsoil is already placed will be identified, stripped and stored prior to the imported soils being laid on top (para 2.5.5, *Restoration Maintenance Scheme Environmental Risk Assessment*). As discussed below the majority of the area is contaminated with Himalayan Balsam and therefore this would result in spread of the species and offences. Soils contaminated with invasive species must not be re-used on the site.

The inert fill material could be a range of materials, including brick waste, waste clays, sands, concrete, tiles /ceramics, soils, stones (*Restoration Landform Maintenance Scheme*), it is therefore not clear what the final conditions of the area would be. The information submitted indicates that top soil would be used as a top covering to plant/seed into. Nutrient rich topsoil should not be used. Suitable soils to create species rich habitats should be used (including low phosphate and acceptable nitrogen levels) and suitable conditions to enable successful establishment of target habitat will need to be provided (i.e. ground would need to be adequately prepared etc).

Post remediation, the ground conditions in the area to be directly affected would likely be different and presumably would be less water logged. It is therefore unlikely that floristically diverse fen/marsh grassland habitat could be re-created. There may however be opportunities to create (or at least work towards creating) habitats of a similar value, such as areas of species rich drier neutral grassland. Proposed habitat creation should take into account all losses, including of habitats and for species (detailed below). It would be of benefit to also see a waterbody created along with tussocky grassland, scrub and amphibian hibernacula but I am not clear that this would be feasible. A suitably experienced and qualified ecologist should be employed to design the habitat establishment and maintenance scheme and suitability qualified landscape architect/soil specialist employed to ensure correct soils are sourced and used and to ensure there would be correct ground preparation. All habitats to be established must comprise native species

appropriate to the locality. Appropriate guidance is given on the Lancashire County Council's Ecology webpages:

<http://www.lancashire.gov.uk/council/planning/planning-application-process/ecology/ecology-advice-for-developers/habitat-re-establishment.aspx>

Ideally seed would be sourced from locally, such as through green hay spreading, rather than through commercially purchased seed.

Although theoretically restoration of the area to high biodiversity value could be possible; even with all appropriate conditions being put in place, there are risks and commitments associated with the successful re-establishment of habitats. In addition, there will be an obvious time lag until the restored area regains any biodiversity value or reaches its biodiversity potential, due to the duration of the works and the time required for habitats to successfully establish and mature. Due to these reasons it is standard practice to require more than like for like area of compensation. Restoration of the area directly affected would not therefore provide sufficient compensation for the losses resulting from direct impacts.

Suitable management of the wider site within the applicant's land ownership as a whole should be secured, in order to retain and improve biodiversity value in the long term and to help offset the losses. However, as discussed above, the applicant has not provided any information to demonstrate that this would be the case or any commitment to managing the site for biodiversity as a priority. Information submitted indicates that the opposite would be the case.

Lancashire County Council should be satisfied prior to determination that there would be sufficient compensation to offset the losses, including restoration of the site to high biodiversity value and long term management of the site for biodiversity value. The applicant should be required to submit information to demonstrate that there would be sufficient compensation for impacts. If sufficient compensation cannot be secured on site, then there would be a need for offsite compensation or, as a last resort, a commuted sum.

Once satisfied sufficient compensation would be delivered, details of habitat establishment and maintenance and long term management can be submitted subject to planning conditions.

### **Amphibians including Great Crested Newts (European Protected Species) and Common Toad (Species of Principal Importance)**

#### Great Crested Newts

Although there are no ponds on the site, amphibians spend most of their life on land and therefore consideration has to be given to ponds in the surrounding area and the likelihood (if these are used by newts) of newts being on the site and of them being affected.

Great crested newts are typically considered to move up to 500m from their breeding ponds (*Great Crested Newt Conservation Handbook*, Langton, Beckett and Foster 2001). There are 10 ponds within 500m of the site. I agree with the conclusion in the *Ecological Assessment* (Urban Green, April 2019) that the A5209 and the canal (and the River Douglas) would create a barrier to amphibian movement between 7 of the ponds and the site.

There are no barriers to amphibian dispersal between the remaining 3 ponds, which are located to the south of the site, and the works area. Indeed the intervening habitat is woodland and swamp which provides highly suitable terrestrial habitat for amphibians.

These 3 ponds were all subject to a Habitat Suitability Index assessment, which is used to give an estimate of the suitability of ponds for Great Crested Newt. In general ponds with high HSI scores are more likely to support great crested newts than those with low scores, however it does not allow the conclusion that a particular pond with a high score will support newts or that a pond with a low score will not. The HSI assessed all 3 ponds to be of below average suitability for great crested newts.

The *Ecological Assessment* states that the terrestrial habitat within the restoration area (i.e. the whole site as when the report was written when it was proposed to infill across the whole site) is sub-optimal. **This is simply not true.** The survey identified the following habitat on the site: semi-improved grassland (which appears tussocky in the photos), dense scrub, hedgerows, tall ruderal and scattered scrub (identified as marsh/marshy grassland and fen in the Tyrer Ecological Consultants' *Ecological Appraisal*). These habitats all provide good terrestrial habitat for great crested newts, including habitat suitable for newts to hibernate in (dense scrub, hedgerow bases) and rest in (tussocky grassland) and forage across (grassland, tall ruderal, marshy grassland and fen).

The *Ecological Assessment* makes reference to a Great Crested Newt record on the site from the 1980s. It is my understanding that the sandstone quarry contained ponds (pg 2, *Restoration Landform Maintenance Scheme*, Terra Consult, Oct 2019) and prior to landfill (and destruction of these ponds) great crested newts were translocated from the site (Nik Bruce pers. comm.). **I am not, however, clear whether the record is pre or post translocation works.**

Unfortunately, surveys to establish the presence/absence of greater crested newts in the 3 ponds have not been carried out. Therefore, in determining the risk that newts would be using the area to be affected and the likelihood of the works result in offences, a number of considerations need to be taken into account: including scale, nature, location and duration of the works, habitat connectivity from ponds to the works area, suitability of the works area for newts, distance of ponds from the site, terrestrial habitat within 250m of the ponds, suitability of the ponds etc.

**I am not clear on the exact extent of the works.** It appears that there may be impacts outside the area directly to be affected both in the short term, (due to soil run off and wider works) and in the longer terms (due to future use/management of the site) (discussed above). **This will need to be fully established** in order to ensure that likely impacts on great crested newts (and offences) are adequately considered and to allow Lancashire County Council to have sufficient regard to the Habitats Regulations in reaching a planning decision.

Based on the impacts being within the direct footprint of the works only (as shown on the submitted revised masterplan entitled *Land Restoration Proposals: New Highway Access and Tipping Area*), for the following reasons it seems reasonably unlikely that populations of great crested newts would be in the area to be affected and, provided precautionary working methods are adopted (discussed below), that the works would result in offences. It would therefore seem disproportionate to require Great Crested Newt surveys:

- The 3 ponds within 500m are all of below average suitability for great crested newts

- The ponds are >250m from the area to be affected
- There is a significant amount of highly suitable habitat (woodland) for great crested newts within 250m of the ponds
- A very high proportion of the great crested newt population within a pond will typically utilise terrestrial habitat much closer than 500m to the breeding pond with the majority of newts at most sites probably using habitats within 250m of the pond (Great Crested Newt Conservation Handbook, Langton, Beckett and Foster 2001)
- The site is not located between ponds or likely newt meta-populations (as all the ponds are to the south and the main road creates a newt barrier to the north)
- The Natural England GCN rapid risk assessment tool indicates, that based on the scale and the location of the works, offences would be highly unlikely (provided individual newts are not killed/injured). Less than 5ha of land would be affected at a distance over 250m from the ponds.

Theoretically the habitat losses could be temporary in the sense that the area subject to infill could be restored back to habitat with high biodiversity value including of good for amphibians.

The presence of newts within the area to be directly affected cannot however be completely ruled out. It needs to be ensured that measures are adopted to ensure that individual newts are not killed/injured as a result of the proposals. A precautionary working method statement to address this can be submitted and addressed via planning condition.

Please note: If additional land would be affected directly or indirectly then impacts (and likelihood of offences) would need to be re-assessed and there may be a need for presence/absence surveys. For example: had the original plans still be proposed (i.e. with a larger area affected included land in closer proximity to the ponds) then this would have tipped the balance into a higher likelihood of adverse impacts (and offences) and Great Crested Newt presence/absence surveys would have been required.

#### Common Toad

There are numerous records of toads in the area. These are all clustered around a site approximately 750m to the south-west of the site, although an absence of records in closer proximity to the site does not mean toads are not present.

Toads prefer larger waterbodies for breeding (>250m<sup>2</sup> and preferably >500m<sup>2</sup>). The ponds to the south of the site are all smaller than this (although may still be used by toads). There are larger waterbodies to the south-west of the site near to the toad records.

Toads spend much of their time on land and move up to 1km from their breeding ponds. The habitats on site and to be affected do represent suitable habitat for amphibians, although the majority for foraging rather than for hibernation. Toads are more likely to be using the woodland to the south of the site and along the railway/river/canal corridor for hibernating.

The presence of toads on the site cannot be ruled out. Working measures should be adopted to ensure that impacts on populations of toads are avoided. Measures to ensure that impacts on individual great crested newts are avoided would also be sufficient to ensure that impacts on toads are avoided. This can be addressed subject to planning condition.

A significant area of suitable habitat for toads would be directly lost. This could theoretically be temporary; assuming that retained habitat would be protected and enhanced, suitable habitat would be created on the area to be infilled, and the site as a whole would be managed for long term biodiversity value; but as discussed elsewhere the applicant has not demonstrated that this would be the case. Lancashire County Council should be satisfied that that adverse impacts would be unavoidable and would be adequately mitigated and compensated for.

### **Reptiles (protected species)**

The closest reptile record within the last 30 years is over 7km away from the site. Although a lack of records may indicate a lack of survey effort rather than absence; reptiles are sparsely distributed in Lancashire and the site as a whole does not appear highly favourable with much of it lacking in structural diversity and being wet in nature. There is no reason to believe that the site is of any particular importance for populations of reptiles and therefore requiring reptile surveys would seem disproportionate.

As concluded in the *Ecological Assessment* (Urban Green, April 2019), the presence of reptiles cannot however be ruled out. In my opinion their presence across the site as a whole cannot be completely ruled out as the entire site supports a mosaic of semi-natural habitats, there is habitat connectivity to the wider area including to the railway network, and slow worm in particular can tolerate a less diverse vegetation structure and can be found on impermeable soils.

Reptiles are protected by law from killing and injury and it therefore needs to be ensured that working methods, including careful site clearance, are adopted to avoid this. This can be dealt with by planning condition.

### **Badger (protected species)**

A survey for badgers has been carried out (*Ecological Assessment*, Urban Green, April 2019). No conclusive evidence of badgers was observed, however mammal pathways were observed within the grassland to the north west of the site and it should be noted that the report does state that much of the dense scrub on site was impenetrable and could therefore not be examined for sett presence.

It appears possible that the mammal pathway observed is created by people/dogs, as there is an apparent pathway visible of google mapping crossing through the grassland in the north of the site connecting to the layby. It also does seem reasonably unlikely that badgers would be using the areas of dense scrub unless there are clear exit/entrance paths big enough to be used by badgers, which has not been detailed.

There are records of badgers in the wider area and the report concludes that the site is suitable to be used by badgers and that there is potential for them to become established on the site between the survey and commencement of works.

The report recommends a pre works repeat survey for badgers. This seems reasonable and can be implemented subject to planning condition.

### **Birds**

The *Ecological Assessment* highlights the suitability of the site for nesting birds, including for ground nesting birds, and identifies the need for works affecting suitable habitat to be undertaken outside

the bird nesting season. Whilst this is true (and can be addressed by planning condition), it only addresses the need to avoid offences and does not consider the value of the site for bird populations or the impacts the works would have on suite of species using the site.

The site supports a mosaic of habitats across a large area. The habitat present (including swamp/fen/grassland with scattered scrub and denser areas of scrub and hedgerows) will provide suitable habitats and a suitable juxtaposition of habitats for a range of bird species. The site also links to the wider landscape through adjacent semi-natural habitats and appears to be largely undisturbed due to restricted public access and limited management activities. These factors will further increase its potential value for birds. The site is likely to have value for breeding birds and birds on passage.

Unfortunately no bird surveys have been carried out and I have not seen any bird data specific to the site. In the absence of available survey data, a precautionary approach should be taken. Based on the available information the site appears to have potential to be of significant value to birds, for example it has the potential to support a range of breeding species (including Species of Principal Importance) such as Reed Bunting, Sedge Warbler, Chiffchaff, Blackcap, Willow Warbler, House Sparrow, Song Thrush, Whitethroat and Dunnock. There are records in the area for Reed Bunting and Willow Warbler.

A significant area of the site would be directly lost. This could theoretically be temporary, but as discussed elsewhere the applicant has not demonstrated that this would be the case. There would also be likely indirect impacts on birds using the site, through increased disturbance during the works and, critically, potentially due to changes in the future use and management of the site. The future management and use of the site is not clear and this could have a significant adverse impacts on birds using the site, for example increasing public access (people and dogs) and activities on the site and changes in management (e.g. intensive grazing) would result in disturbance and displacement of birds and reduction of available habitat.

Theoretically adverse impacts on populations of birds could be temporary; assuming that retained habitat would be protected and enhanced, suitable habitat would be created on the area to be infilled, and the site as a whole would be managed for long term biodiversity value with no increase in public access or significant disturbance. The applicant has not however submitted information to demonstrate that this would be the case (discussed above).

Lancashire County Council would need to be satisfied that that adverse impacts would be unavoidable and would be adequately mitigated and compensated for. Once satisfied the details can be submitted and implemented subject to planning condition: through a construction environment management plan, habitat establishment and maintenance plan and long term management plan.

### **Bats**

The site is suitable for use by foraging and commuting bats and they may be disturbed and/or discouraged from using their roosts, established flyways or foraging areas if these are subject to the introduction of artificial light. It is recommend that no lighting be installed without prior approval from Lancashire County Council.

## **Barn Owl**

The *Ecological Assessment* (Urban Green) makes no mention of barn owls and therefore the likely impacts on them have not been considered.

The habitats on the site (grassland, tall ruderal, swamp and marshy grassland) are likely to provide good foraging habitat for barn owls.

There are records of barn owls in the local area, including regular sightings of foraging barn owls within 1km of the site and two records of nesting/roosting within 2.5km of the site. There may be other nesting/roosting sites within closer proximity, which have not been recorded.

Barn owls require a certain amount of suitable foraging habitat within their home range in order to find sufficient prey, for example within a mixed landscape they require 17-26ha of rough grassland (*Barn Owl Conservation Handbook*, The Barn Owl Trust, 2012). The site could therefore represent a significant area of foraging habitat for barn owls and loss of 4ha of suitable foraging habitat could have a significant adverse impact on the barn owls in the area.

Theoretically the habitat losses could be temporary, assuming that retained habitat would be protected and enhanced and suitable habitat (such as species rich grassland and tussocky grassland) could be created on the area to be infilled and managed for long term biodiversity value. **The applicant has not however submitted information to demonstrate that this would be the case** (discussed above).

**If Lancashire County Council are satisfied** that retained habitat would be adequately protected and that good foraging habitat for barn owls would be re-created, then information can be submitted to address this subject to planning conditions.

## **Hedgehog and Brown Hare (Species of Principal Importance)**

Hedgehogs may use the site woodland, scrub, tall ruderal, hedgerows and grassland for foraging and nesting/hibernation (para 3.3.6, *Ecological Assessment*).

There are records of Brown Hare in the local area. Unfortunately despite this the *Ecological Assessment* makes no further mention of Brown Hare. There is however some potential for Brown Hare to utilise the site (for feeding and lying up in the longer grass), although the site may not be sufficiently open in character to be significantly used.

The proposals would result in a loss of habitat. Habitat losses should be adequately compensated for and retained habitat adequately protected (discussed above).

It would also be appropriate for the precautionary working methods to be adopted, including careful site clearance, to ensure that impacts on these species are avoided. This can be subject to planning condition.

## **Cinnabar moth (Species of Principal Importance)**

**The Cinnabar Moth was observed on the site. The Tyrer *Ecological Appraisal* states that the Cinnabar moth "was distributed across the extent of the survey area where larvae (i.e. caterpillars) were found on many plants of Common Ragwort".** The ecological survey carried out by Urban

Green did not make this observation, which is to be expected as this survey was carried out in early April when the caterpillars would not yet have hatched and would not be visible.

The Cinnabar Moth is Species of Principal Importance for conservation. The food plant of the moth's caterpillar (larvae) stage is primarily Common Ragwort.

As the Urban Green ecological survey did not identify the presence of Cinnabar moth on the site, the impacts on them have not been assessed and no mitigation is proposed. However, as the species was found across the survey area, only part of the habitat within survey area would be lost, and the area to be infilled could theoretically be re-established with suitable habitat, it seems that populations of this species could be retained on site in the short and longer term.

Mitigation and compensation measures to ensure the continued presence of the Cinnabar moth on the site, through the continued retention of Common Ragwort through the site, will need to be implemented. This can be addressed by planning conditions: through a construction environment management plan, habitat establishment and maintenance plan and long term management plan.

It should be noted that Common Ragwort is a species which is often undesirable in an agricultural setting it being poisonous to stock if eaten (although it tends to only be eaten if stock are pushed for food or it is presented once cut (such as in hay)) and also is listed as an injurious weed on the Weeds Act (1959). There is no obligation under this legislation to remove ragwort from the site and indeed it should be retained, as discussed above. Any management plan for the site should seek its retention and not, as is standard in management plans, seek to completely control it. Some control may be necessary if it threatens re-establishment of species rich habitats.

### **Notable Plants**

The *Ecological Appraisal* (Tyrer Consultants Ltd) identifies a number of plants on the site as being of conservation importance, namely Knotted Pearlwort, Brown Sedge and Corn Mint. I am not clear what the assessments of conservation importance provided in the report (page 11) are based on. I understand that none of these species are Lancashire Key Species (the collective term used by Lancashire Environment Records Network to refer to species which have a recognised status, either inter(nationally) or locally).

The stand of Brown Sedge is located to the south of the area to be infilled and would not therefore be directly affected, although indirect impacts are not clear. The *Ecological Appraisal* shows about half the distribution of Corn Mint to be outside the area to be directly affected. Provided the habitat to be retained can be adequately protected (discussed above) then there should be no significant impacts on both these species.

Knotted Pearlwort would be directly affected. The *Ecological Appraisal* (section 9.1) recommends that this plant be translocated prior to commencement of works and relocated to a suitable area within the remediated quarry. This would seem appropriate and can be addressed by planning condition.

### **Invasive non-native species**

Japanese Knotweed, *Montbretia*, Himalayan Balsam and Rhododendron are all invasive non-native species which have been identified on the site. The ecology survey carried out by Tyrer Consultants

Ltd (*Ecological Appraisal*) was carried out during the summer when these plants (in particular Himalayan Balsam and *Montbretia*) would have been more visible and their extent better assessed.

The Wildlife and Countryside Act (as amended)(1981) makes it an offence to plant or otherwise cause these species to grow in the wild. Measures will therefore need to be adopted to prevent their spread as a result of the works.

The Japanese Knotweed is present in the area proposed to be infilled. It is proposed that it be buried. I am not qualified to comment on the appropriate treatment of Japanese Knotweed, although I understand that burying it to a sufficient depth can be used as a means of eradication/management. I recommend that recommendations from an appropriate qualified/specialist organisation/individual are followed and implemented subject to planning condition. There may also be a need for longer term monitoring and on-going eradication of this species.

Himalayan Balsam has been identified as being present across the majority of the site (*Ecological Appraisal*, Tyrer Consultants Ltd), including across the proposed infill area. The current proposals do not take into account this species, and include soil stripping in areas contaminated with Himalayan Balsam and storage of this soil in bunds before re-spreading. Himalayan Balsam prefers disturbed soils and such activities will result in the spread and increased growth of this species and thus offences. Soils contaminated with Himalayan Balsam must not be re-used on the site.

The presence of this species will need to be taken into account and it will need to be ensured that the works do not result in the spread of this species. The applicant should follow appropriate method statements during the works and appropriate use of soils during the re-instatement works. This can be made subject to planning condition.

In addition, to provide some biodiversity benefits across the site (in order to help compensate for the impacts) it would be appropriate for non-native invasive species to be controlled and ultimately eradicated from the site in the long term. There does not appear to be any proposals to do this and the applicant has not shown any commitment appropriate long term management of the site (discussed elsewhere). Ongoing control of species such as Himalayan Balsam requires a high level of commitment. Lancashire County Council should be satisfied that a suitable management plan for the site would be achievable and implemented.

I hope these comments are helpful.

Yours sincerely,

Rebecca Stevens  
Senior Ecologist  
Lancashire County Council