Brooks Ecological

Grounded advice

Construction Environment Management Plan

CEMP: (Biodiversity)

Westgate, Cleckheaton

Strata

ER-4666-05B

Report Reference:	Construction Environment Management Plan CEMP: (Biodiversity)
Report Reference:	ER-4666-05B
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Date:	17/08/2023 7/09/2023 revisions 25/09/2023 MJD minor amend 24/10/2023 Rev A update with INNS plan details 21/11/2023 Rev B amend to accord with SWMP

The information which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report does not constitute legal advice.

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Introduction

This document is produced to show how the proposed development can be built out without impacting on important ecological features. During the construction phase. It is produced with reference to British Standard 42020 Clause 10.2 Construction Environment Management Plan (CEMP).

The purpose of a CEMP: Biodiversity is to identify risks to biodiversity, evaluate the level of risk and supply methods for the management of these. The CEMP is also produced to discharge planning Condition 20 and part of Condition 32 of planning application 2021/93567. These conditions state the following:

Condition 20:

> 'Prior to development commencing, (including demolition, ground works, vegetation clearance) a Construction Environmental Management Plan: Biodiversity (CEMP: Biodiversity) shall be submitted to, and approved in writing by, the Local Planning Authority. The CEMP: Biodiversity shall include the following:
>
> a. Risk assessment of potentially damaging construction activities.
>
> b. Identification of "biodiversity protection zones".
>
> c. Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).
>
> d. The location and timing of sensitive works to avoid harm to biodiversity features.
>
> e. The times during construction when specialist ecologists need to be present on site to oversee works.
>
> f. Responsible persons and lines of communication.
>
> g. The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.
>
> h. Use of protective fences, exclusion barriers and warning signs.

Condition 32 (part a):

> 'Prior to the installation of any external lighting (excluding that within the adoptable highway), a 'lighting design strategy' giving due regard to amenity, biodiversity and security, shall be submitted to and approved in writing by the local planning authority. The strategy shall include, but not be limited to:
>
> a. identify those areas/features on site that are particularly sensitive for bats and that are likely to cause disturbance in or around their breeding sites and resting places or along important routes used to access key areas of their territory, for example, for foraging; '

In producing this plan, the following information sources are referred to:

- Preliminary Ecological Appraisal Report (PEAR), ER-4566-01, Brooks Ecological July/ August 2020;
- Ecological Impact Assessment ER-4666-03-C , Brooks Ecological, February 2023;
- Westgate, Cleckheaton – BS5837:2012 Arboricultural Impact Assessment and Arboricultural Method Statement, Ecus Ltd. May 2023;
- Landscape Masterplan R/2487/1L, FDA Landscape, May 2023;
- Invasive Species Management Plan, Ebsford Environmental Ltd. October 2023.
- Surface Water Management Plan, RSK Geosciences, Oct 2023.

Responsible Persons & Lines of Communication

An Ecological Clerk of Works (ECoW) will be appointed by Strata (the Developer) prior to any activity commencing on site.

The Developer will formalise lines of communication with the ECoW establishing who within their operation is responsible for actions on site prior to any work commencing. These links will be maintained until such a time as a Site Manager is appointed and assumes this responsibility.

The Developer is responsible for the maintenance of protection and exclusion fencing, however the ECoW will check fencing on each visit and immediately bring issues to the attention of the Project Manager or Site Manager.

The Developer is responsible for compliance with regulations, legal consents, planning conditions, environmental procedures and contractual agreements and the issuing of periodic reports on success and compliance. These periodic reports will feedback into the CEMP for the subsequent phase(s) and the Developer will ensure the results of this review are effectively communicated to on-site staff.

The Role of an Ecological Clerk of Works

The ECoW will be a suitably trained and experienced professional ecologist who is a member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

The ECoW will carry out all ecological surveys and watching briefs.

The ECoW will deliver a tool box talk to site workers prior to any clearance commencing.

The ECoW will make periodic monitoring visits to check the integrity of any fencing and monitor site activities (pollution control). On each visit to the site, the ECoW will monitor the activities and assess for compliance with this CEMP (Biodiversity).

A Site Inspection Certificate will be issued to the Developer following this with any recommendations highlighted. The Developer will take all measures necessary to comply with the recommendations. ECoW visits will be carried out according to Site conditions. The Site Manager will call the ECoW to site as soon as any of the following emergency events occur:

<u>Encountering protected species</u>

Should any protected species (or nesting birds) be encountered during any phase the ECoW will be consulted. Any advice provided to ensure that wildlife offences are not committed will be followed. This could include curtailing works in part or all the site until appropriate species mitigation, licensing or agreed avoidance measures be secured.

<u>Damage to retained habitats</u>

The Site Manager will follow the advice of the ECoW to ensure that the careful like for like restoration of habitats damaged is enacted in the first available season. This may include replanting, re-seeding and appropriate establishment management.

<u>Spillage of chemicals</u>

The Site Manager will follow the Site Environmental Management Plan (SEMP) or equivalent plan produced by the main contractor for the Site

Constraints

A Preliminary Ecological Appraisal undertaken in August 2020 by Brooks Ecological, has been used to inform an Ecological Impact Assessment (EcIA) for the site, along with additional information from dedicated species surveys for bats, badger, crayfish and riparian mammals.

The EcIA has evaluated potential impacts from development including the site clearance and construction phases, and summarised the mitigation required or desirable to ensure biodiversity protection.

The key recommendations are that the CEMP will detail the following protection measures:

- Location of Biodiversity Protection zones and screening fences to protect retained trees, habitat areas and the Blacup Beck watercourse;
- Dealing with known or discovered invasive non-native species;
- Pre- or during- clearance ecology checks for protected species including badger;
- Protected/notable species method statements where licensing is not needed;
- Nesting bird management.

Table 1 Ecological constraints

Habitat/ Feature
Trees and woodland (on and off Site)
Blacup Beck– watercourse
Lighting (on and off Site)

Protected/ Notable species
Badger (potential–subject to the findings of the commencement on and off-site survey)
Nesting birds (on-Site)
Invasive non-native species: Himalayan balsam Giant hogweed Japanese rose

Impacts

Impacts on biodiversity features and associated fauna fall into the following broad categories:

- Vegetation clearance;
- Soil stripping;
- Re-spreading soil and stored materials; and
- Noise generation and disturbance.

Construction Stages

i) Site clearance and soil stripping

Trees and woody vegetation are usually removed by a forestry or arboricultural contractor using either a large driven mulching machine which chops arisings and incorporates with the soil, or locally by hand machinery with material being chipped and spread, piled or removed.

Large excavators scrape back soil to create clear development platforms. Topsoil is taken by dumper to soil stores on Site, where it can be left for many months before being reused on Site.

This phase presents the greatest risk to nesting birds and the health of retained hedgerows and trees.

ii) Installing drainage

Creating drainage will require localised vegetation clearance away from the development platforms. Machinery will excavate trenches for pipes and the trenches will be backfilled and seeded.

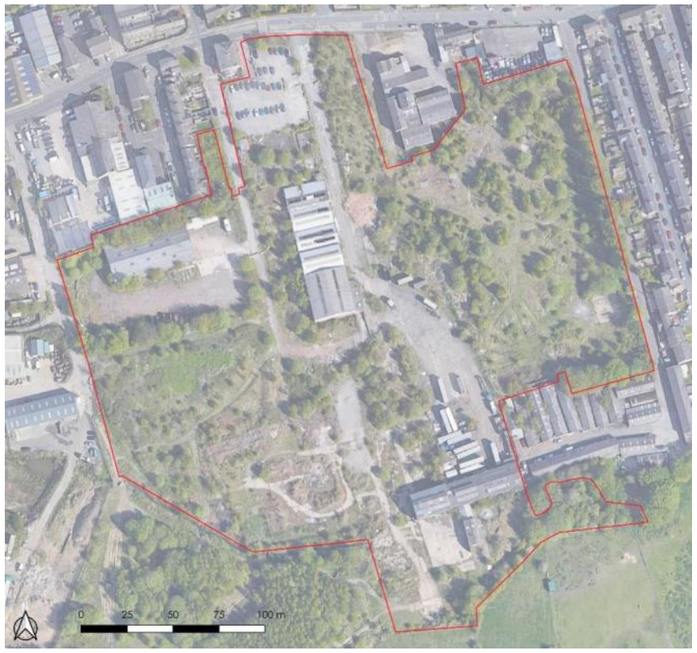
iii) Installing roads and sewers

This is normally completed by a contractor digging into the cleared development platforms as the first construction activity.

iv) Building out cleared plots

Phased construction of plots according to market demand in approximately 5 years.

Typical activities which require Ecological Clerk of Works (ECoW) overseeing are likely to be; clearing any remaining bird nesting habitat or clearance of soil stores (which could have been used by fauna such as badger /fox).



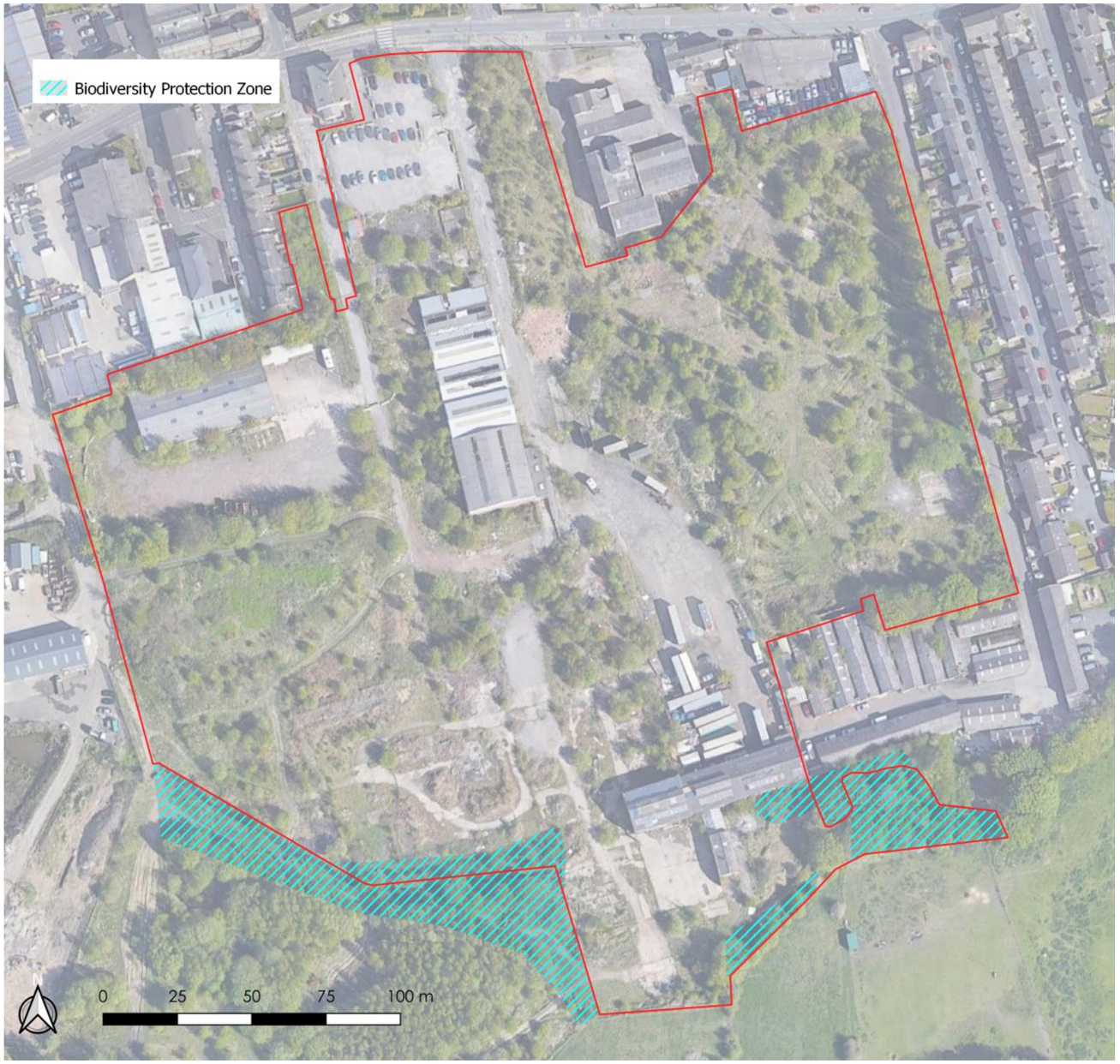
On this site higher value wildlife habitat exists in boundary areas of retained trees and the stream corridor to the south.

Landscape Masterplan

Biodiversity Protection Zones

Parts of Blacup Beck and mature woodland both on and off the site to the south are sensitive habitat areas potentially at risk from impacts arising from construction activities. These areas constitute a Biodiversity Protection Zone requiring protection throughout the construction phase of development.
In the following sections, a risk assessment of potential impacts will specify controls within the site that ensure potential impacts to these areas and are acceptably mitigated.

Woodland, scrub and stream habitats requiring protection



Risk Assessment of Potentially Damaging Development

High Risk

Destroying bird nests

Works which require the removal of trees, scrub and rough grassland present a high risk of affecting nesting birds contrary to the Wildlife and Countryside Act (1981). The whole site has potential for nesting birds to be present.

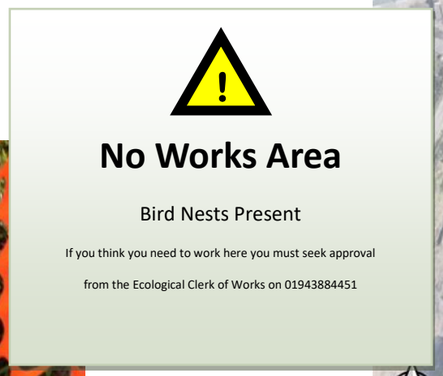
Control 1 : Timing and Survey

It s anticipated that the site will be cleared during the period September–February which is outside of the main bird nesting season.

Control 2 : Survey

Where this is not possible or sections have been missed and need to be cleared in the period 1st March to 31st August the ECoW will carry out nesting surveys of the vegetation to be affected within 72 hours prior to clearance. The area illustrated to the right is subject to this control.

If nests are found these will be demarcated on the ground and works will avoid them until birds have fledged or abandoned the nest. An ecologist inspection report will be produced before works continue.
In areas where vegetation is too dense to allow the ECoW to conclude likely absence of a nest the ECoW will supervise vegetation clearance. Only hand held brush cutters will be used in these areas. The ECoW will direct cutting until such a time that she/he is happy that no nests are present.



Risk Assessment of Potentially Damaging Development

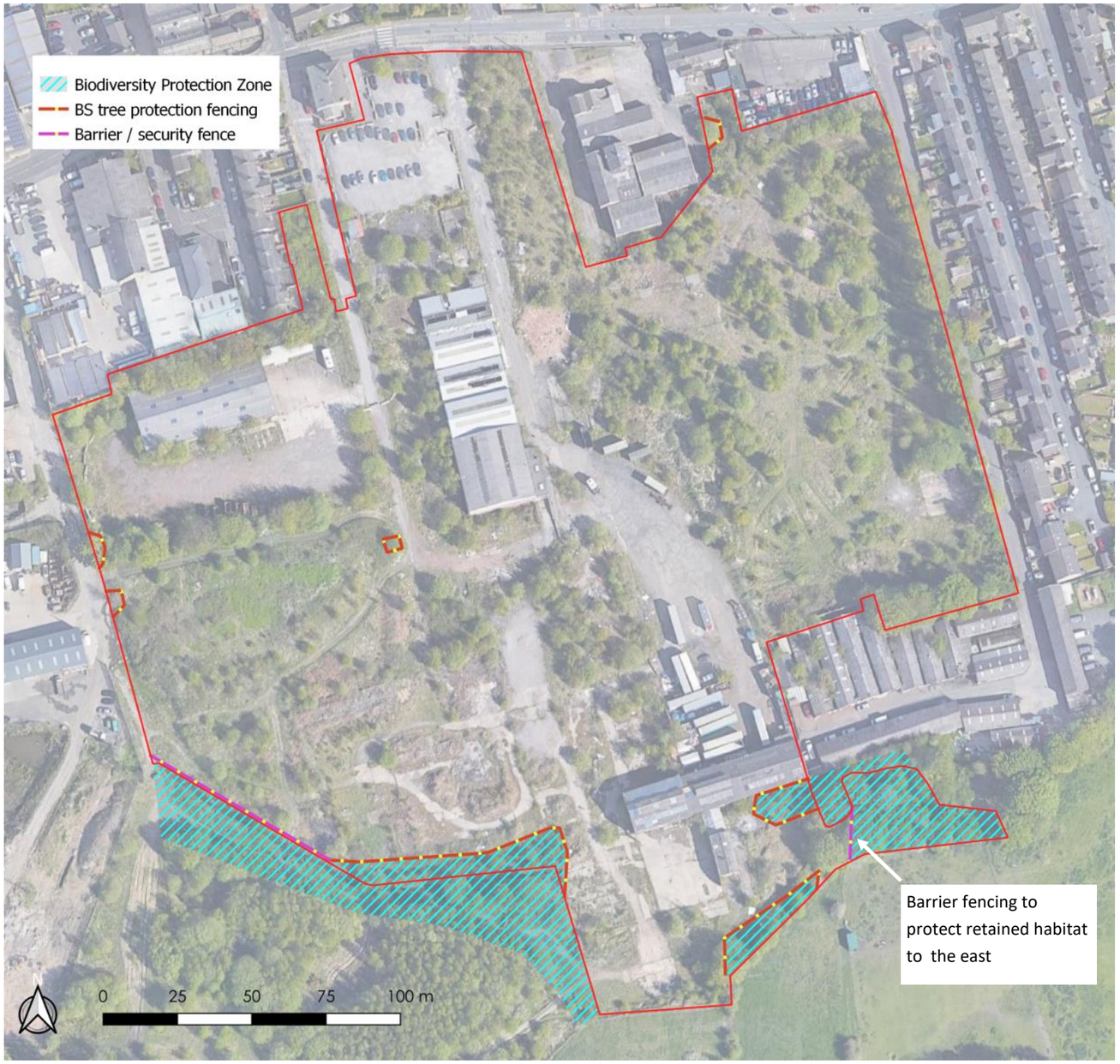
High Risk

Unnecessary damage to trees and retained habitat areas

Without protection in place, development poses a high risk of affecting on-site retained trees and habitat areas.

Control 3: BS5837 Tree fencing and site fencing

1. Tree Protection Fencing according to the development's Arboricultural Method Statement (AMS) will be followed. The figure shown right is illustrative.
2. Fencing will be installed prior to site clearance following the plan in the TPP.
3. Some additional off-site areas in the Biodiversity Protection Zone will be protected though site perimeter security fencing which will prevent access from the site to these areas. An additional short section of site fence is require to protect retained habitat to the south eastern corner of the site where illustrated to the right. .
4. Fencing position will be checked by the ECoW prior to the start of site ground works.



Risk Assessment of Potentially Damaging Development

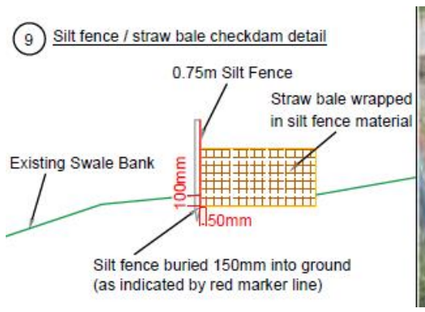
High Risk

Pollution to Blacup Beck

Without controls in place development poses a high risk of causing silt runoff or dust pollution.

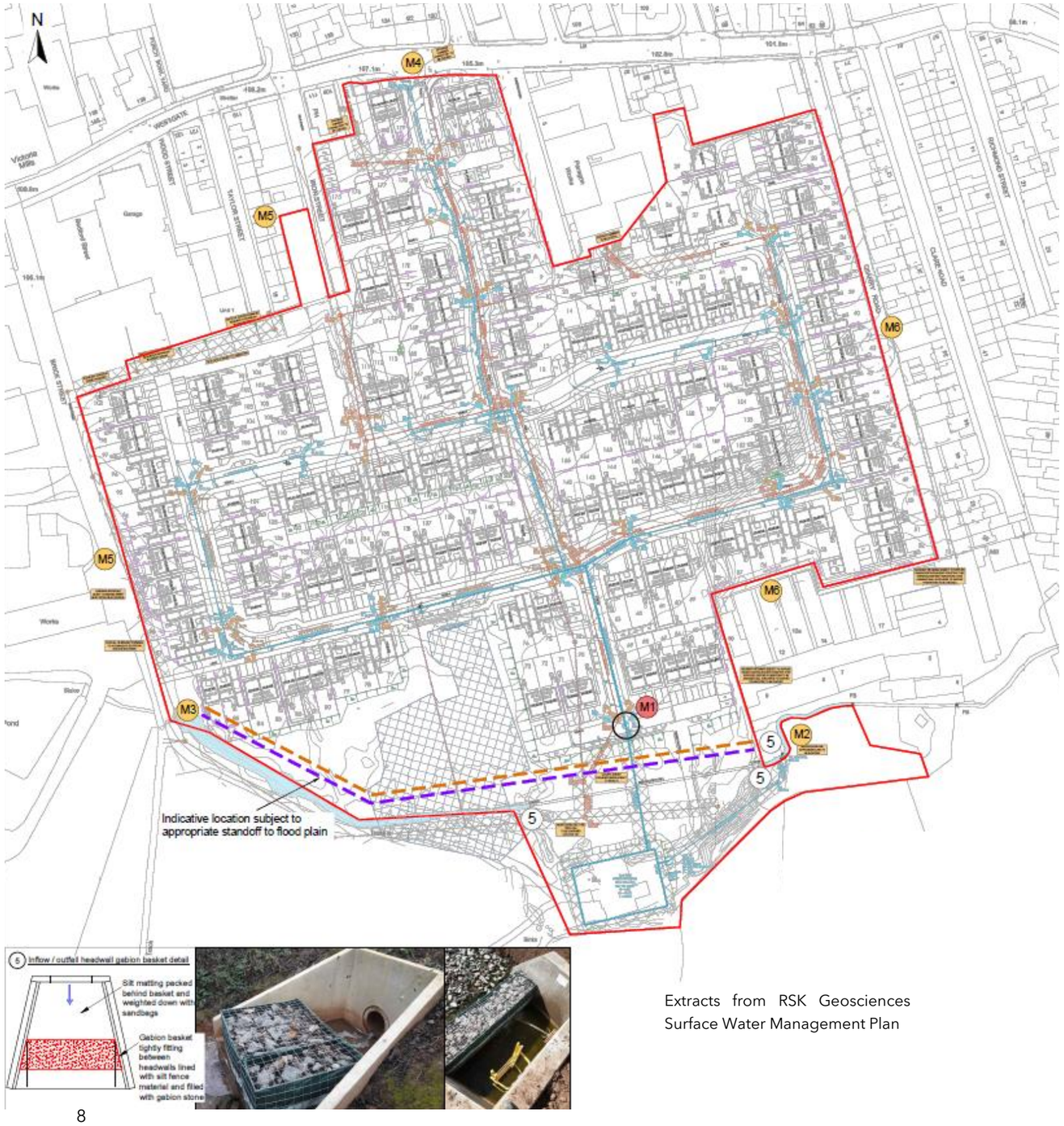
Control 4: Silt and dust fencing

1. Silt Fencing and other additional silt control measures will be installed in accordance with the Surface Water Management Plan (SWMP) to mitigate the risk of silt pollution to the watercourse of Blacup Beck. This will include soil bunds, attenuation features and installation of silt traps and fencing to buffer the stream and control runoff.
2. Additional dust sheeting will be installed to protect the water course and vegetated banks as required by weather conditions. Other forms of dust suppression such as spray controls may be utilised as set out in the site SEMP.
3. Fencing position and condition will be the responsibility of the site manager and checked by the ECoW during monitoring visits.



Above: Silt fencing example from RSK Geosciences SWMP

Right: Dust screening example



Extracts from RSK Geosciences Surface Water Management Plan

Risk Assessment of Potentially Damaging Development

Moderate Risk

Interfering with a badger sett contrary to the Protection of Badgers Act (1992)

Although no evidence of badger setts was found by Brooks Ecological in their surveys to support the planning application it was recognised that the site was dense with obscuring vegetation. Pre-clearance survey were recommended.

Control 5 : Badger survey and supervision

Survey: Prior to site clearance work commencing, the area illustrated right will be subject to a badger survey. If a badger sett is found it will be marked out on the ground by the ECoW using temporary barrier fencing and pins, and notices will be erected advising of a No Works Area. The Developer will follow all advice supplied by the ECoW in terms of the need for and approaches to licensing or supervision of works in proximity to any identified sett.

Supervision: In areas where vegetation is too dense to allow the ECoW to conclude likely absence of a sett the ECoW will supervise vegetation clearance. Only hand held brush cutters will be used in these areas. The ECoW will direct cutting until such a time they are satisfied that no badger sett is present .

High Risk

Spreading Invasive Non-native Weeds

Preliminary ecology survey identified three invasive non-native species present within the site. A subsequent dedicated invasive weed survey by Ebsford Environmental has mapped the presence of INNS in order to enter these into a management plan which sets out options for short term control and long term remediation. The target species, as illustrated right, are:

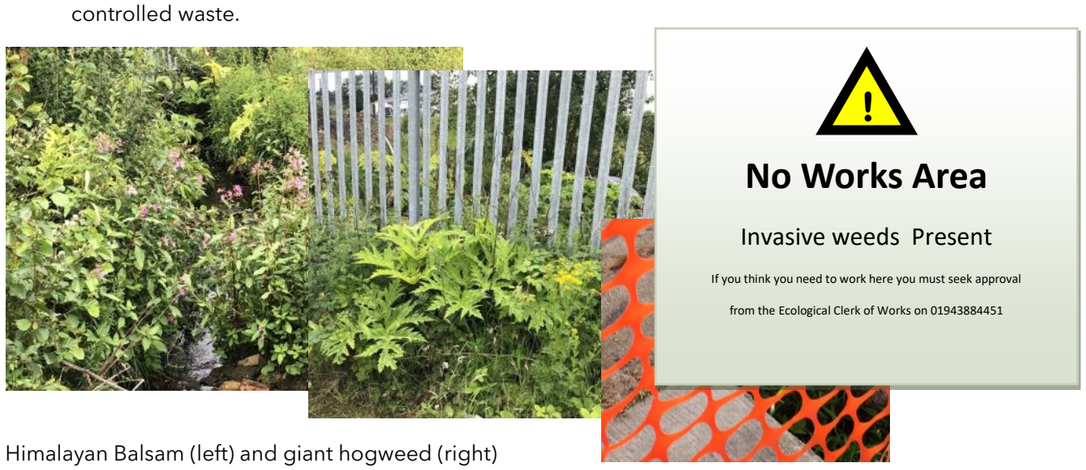
- Japanese knotweed
- Giant Hogweed
- Himalayan balsam

Control 6 : Invasive weed management plan

The Ebsford Environmental invasive Species Management plan will be followed and updated as required following pre-commencement survey by the appointed treatment company. In accordance with the INNS management plan, areas of Identified INNS infestation will be identified on the ground with temporary fencing and signage in order to prevent disturbance to these areas prior to commencement of clearance and ground works.

Controls will need to be tailored to survey findings and the construction programme and will need to be agreed between the developer and the invasive weed treatment company. Typical options require, but are not limited to:

- Signage and induction to make construction staff aware of risks;
- Exclusion fencing to prevent disturbance to INNS affected areas;
- Treatment to kill off plants and prevent further spread;
- Localised excavation of plant material and subsequent disposal within or from the site as a controlled waste.



Himalayan Balsam (left) and giant hogweed (right)

Extract from Ebsford Environmental *Invasive Species Management Plan* identifying the location of INNS found during survey.

Moderate Risk

Disturbance to Nocturnal Fauna

Without precautionary controls in place artificial lighting used during works poses a moderate risk of causing disturbance to bats and other nocturnal animals which are present in off-site habitat areas. In particular, woodland to the south and the Blacup Beck corridor are more likely to be of value to bat species as foraging and commuting areas where adverse lighting could reduce the value of these habitats to bats and other species.

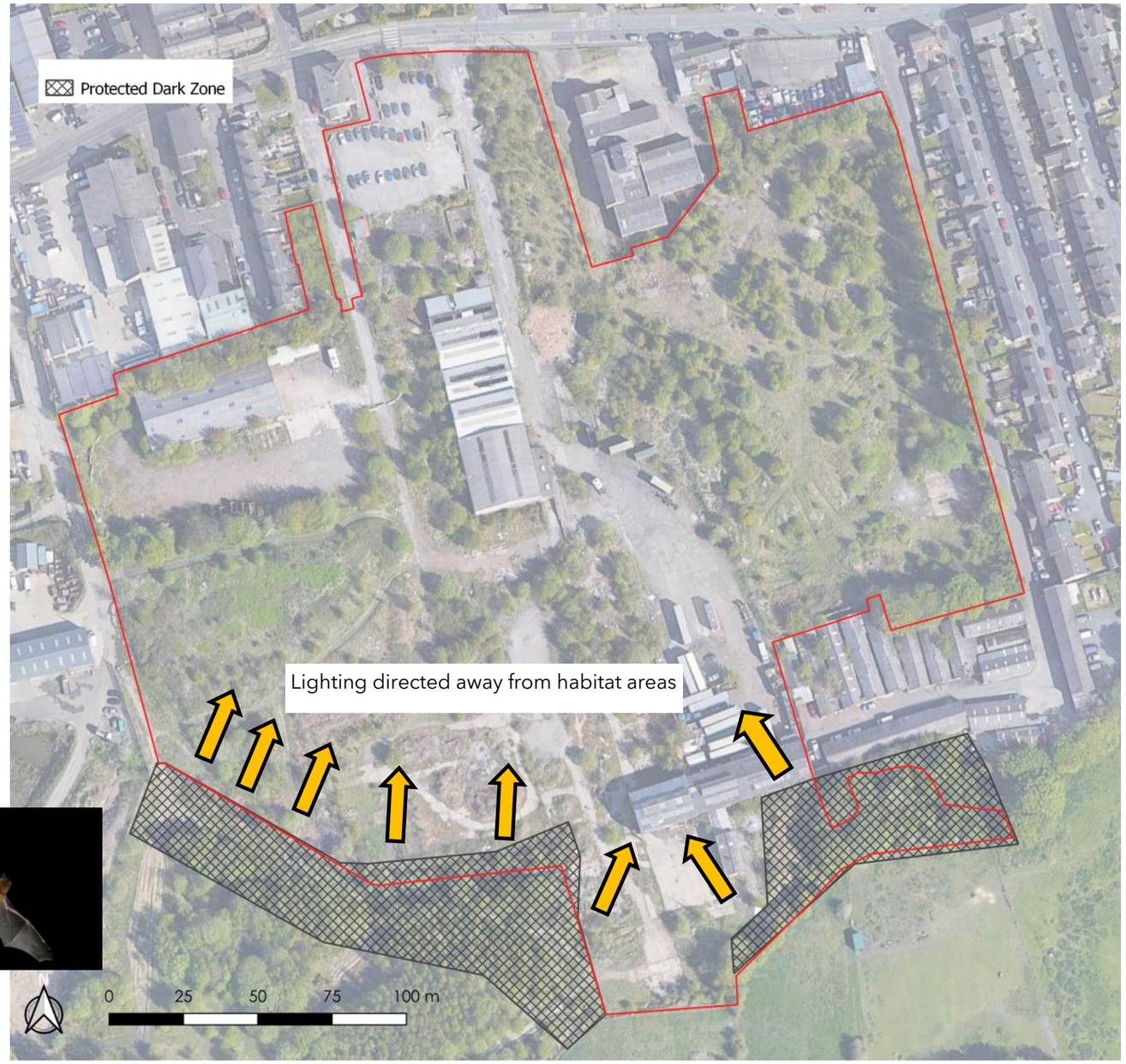
Control 7: Lighting plan

In accordance with Part A of Condition 32 a strategic plan to control artificial lighting will provide measures to remove light spill into the zones indicated in the plan right, and maintain these as protected dark zones. Lighting can be controlled through a variety of mechanisms which control the location, height, direction, intensity, duration, frequency and beam of light sources.

1. If the Site is to be trafficked at night or used for operations such as welding at night, perimeter fencing adjacent to the dark zone should incorporate light screening material construction to prevent headlight illumination, or arc lighting.

2. On-site construction lighting to be directed away from the protected dark zones throughout the construction phase through considered placement of lighting towers and use of directional lighting baffles.

3. The Site's Lighting Strategy will demonstrate the avoidance of impacts to these areas during operation, as seen in the figure opposite.



Illustrative example of directed lighting.

Work Schedule

The work schedule below outlines when the tasks required should be carried out, and whether input is required from the ECoW.

Task	ECoW to direct	ECoW to carry out	At Setting out stage	Prior to any work in identified areas	Other timing considerations
Control 1&2 : Nesting birds survey and controls	Yes	Yes		Yes	Survey required prior to clearance works if during nesting season (1st March to 31st August)
Control 3: Tree and Biodiversity Protection Fencing			Yes	Yes	Fencing may be installed following vegetation clearance so long as protected trees and habitat areas are sufficiently well identified prior to this.
Control 4 : Silt and Dust controls			Yes	Yes	To be kept under review throughout construction in response to seasonal weather.
Control 5 : Badger survey and supervision		Yes	Yes		During or after controls 1and 2
Control 6: Invasive Species Management Plan				Yes	specialist invasive weed management company to oversee pre-start survey and agree management options
Control 7 : Lighting Plan controls			Yes	Plan in place	Lighting controls adjusted through season as required
ECoW monitoring and reporting.		Yes		Yes	Periodic monitoring visits through construction phase Provide suitable notice to arrange Site visits
ECoW available for unforeseen issues and supervision		Yes	Yes	Yes	