

APPENDIX E: PRELIMINARY ECOLOGICAL APPRAISAL

Prepared by:

Western Ecology

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Preliminary Ecological Appraisal

Neath Abbey and Gatehouse

March 2023

A report by

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Report details

Central grid reference: SS 737 973
Site address: New Rd, Neath Abbey, Neath SA10 7NH
Report date: 7th April 2023
Report author: Colin Hicks BSc (Hons) MCIEEM

Report reference: WOR-3704

Declaration of compliance

BS 42020:2013

This study has been undertaken in accordance with British Standard 42020:2013 Biodiversity, Code of practice for planning and development.

Code of Professional Conduct

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Validity of survey data and report

The findings of this report are valid for 24 months from the date of survey. If work has not commenced within this period, an updated survey by a suitably qualified ecologist will be required.

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Non-technical summary

Western Ecology has been commissioned to complete a Preliminary Ecological Appraisal of Neath Abbey and Gatehouse to inform a future feasibility study for the development of Neath Abbey and surrounding areas. This commission will form part of on-going work to assess the opportunities to develop the Scheduled Ancient Monument of Neath Abbey and adjacent areas as a visitor and community hub.

The site comprises the ruins of Neath Abbey surrounded by managed grasslands with trees at its margins, and the nearby Gatehouse which is set in an urban environment.

To ensure compliance with nature conservation legislation and planning policy, the following recommendations are made with regards to habitats:

Tennant Canal and River Clydach

Depending on proposals these habitats may need to be protected during any construction phase. These would best be detailed in a Construction Environment Management Plan and may include sections on pollution, protective fencing, dust, storage of materials and wildlife.

To ensure compliance with nature conservation legislation and planning policy, the following recommendations are made with regards to species:

Bats

A variety of potential bat roosting features are associated with the Neath Abbey ruins, the Gatehouse, a modern building to the south, and lime trees, whilst boundary features may be used by commuting and foraging bats, including light averse species. Proposals that could require mitigation informed by bat emergence and/or activity surveys include, but are not limited to:

- Change of use of enclosed rooms
- Repairs to walls
- Installation of additional external lighting
- Demolition/conversion of the modern building
- Tree felling/management.

As soon as proposals are drafted, this report and its conclusions should be re-visited.

Birds

It is likely that occasional common bird species nest within built and vegetated woody habitats within the Site. If any of these habitats are to be cleared, disturbed or managed during the accepted bird nesting season (March to August inclusive), the habitat should be thoroughly inspected, by a suitably qualified person, prior to disturbance. If nesting birds are found, all activities likely to damage the immediate area should be delayed until chicks have fledged.

Reptiles

The Site has potential to support common lizard, grass snake and slow worm at its margins. Provided impacts are limited in extent, by following simple mitigation any

adverse impact can be avoided. Reasonable avoidance measures are recommended.

Otter

Otter is likely to be present in adjacent watercourses. If any ground works are proposed within 50 metres of the river/canal or additional external lighting is proposed for these habitats, further surveys may be required to assess the likely impacts.

Invasive non-native plants

Japanese Knotweed is present in two locations. A method statement should be produced for any works within 7 metres of this area (including any excavations) and a plan developed to eradicate Japanese Knotweed from the Site.

Further survey work

Information within this report is sufficient to allow a robust assessment of the potential effects on the majority of ecological features associated, or potentially associated, with this Site.

However, depending on the proposal for this site the following phase 2 surveys may be required.

- Bat emergence surveys (buildings) – sections of built features where there is potential for impact on day roosting bats should be subject to at least two dusk emergence surveys in the bat active period. Remote monitoring may also be required in voids, chimneys and rooms.
- Bat emergence surveys (trees) – if large trees along the railway boundary are to be felled/managed, they should be inspected by a suitably licenced ecologist for features suitable for bats. If suitable features are found, two bat emergence surveys should be completed to inform mitigation and this should include the use of night vision aids (NVAs).
- Bat hibernation surveys - sections of built features where there is potential for impact on hibernating bats should be subject to two hibernation survey visits by a suitably licenced ecologist, one in mid-January and one in mid-February.
- Bat activity surveys – if additional external lighting will impact linear boundary habitats, bat activity surveys may be required. This could include three walked bat activity transects, one each in Spring, summer and autumn, and three periods of remote monitoring.
- Otter survey - If any ground works are proposed within 50 metres of the river/canal or additional external lighting is proposed for these habitats an Otter survey should be completed by a suitable experienced ecologist. These can be done at any time of the year.

1. Introduction

Western Ecology has been commissioned to complete a Preliminary Ecological Appraisal of Neath Abbey and Gatehouse.

1.1 Purpose of the report

To inform a future feasibility study for the development of Neath Abbey and surrounding areas. This commission will form part of on-going work to assess the opportunities to develop the Scheduled Ancient Monument of Neath Abbey and adjacent areas as a visitor and community hub.

1.2. Survey aims

The survey and this report identify features of conservation importance that could constitute a constraint to the proposals for this site. Where appropriate, recommendations for impact avoidance, mitigation and post-development enhancement are made to ensure compliance with wildlife legislation and relevant planning policy.

This survey has been prepared in accordance with the 'Guidelines for Preliminary Ecological Appraisal' produced by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017).

1.3. Site location

Neath Abbey (founded in 1130) is a Cadw owned site, currently unstaffed and located approximately 1.5m from Neath Town centre along the busy A465 (Heads of the Valleys Road), with the tenant canal, Neath Abbey Ironworks and a local primary school close by.

2. Survey methodology

2.1. Desktop survey

In light of the habitats present within the site, a biological records search was not considered appropriate for the scale and probable impact of the proposed development.

The desktop survey identified any statutory nature conservation sites that may be affected by the proposals. This comprises an important part of the assessment process, providing information on ecological issues that may not be apparent during the site survey.

Consultees for the data search included:

- South East Wales Biodiversity Records Centre provided records for protected and priority species, other species of conservation concern, locally important species, invasive & non-native species and statutory within 5km, and non statutory sites within 1km.
- Natural Resource Wales - Location of statutory nature conservation sites within 5km.

The location of nature conservation sites was examined to determine their ecological and landscape relationships with the proposed site. An assessment was then made of how the sites may be affected by the proposal, taking into account these relationships, and the species and/or habitat types for which the nature conservation site was chosen.

SSSI Impact Risk Zones are areas where the proposed planned change to the environment could either create significant damage to a local SSSI, or might require additional planning and consultation in order to avoid impacting such sites. The assessments are made according to the particular sensitivities of the features for which the SSSI is notified, and specifies the types of development that have the potential for adverse impacts.

In compliance with the terms and conditions relating to its commercial use, the full desk study data is not provided within this report.

2.2. Field survey

A Preliminary Ecological Appraisal of the site was completed by Colin Hicks BSc (Hons), MCIEEM.

The survey was completed on 14th March 2023 between 10:00 and 13:00 with an air temperature of 11°C, light wind, dry and with sunny.

Habitats were classified using the Phase 1 Habitat Survey methodology developed by the Joint Nature Conservation Committee (JNCC, 2010) and modified by the Institute of Environmental Assessment (IEA, 1995). The main plant species were recorded, and broad habitat types mapped. Habitats encountered are described within the Results section, with a map included within the report. Plant species were identified according to Stace (1997).

2.3. Method for valuation of habitats

The ecological value of habitats present is provided in line with Guidelines for Ecological Impact Assessment (CIEEM, 2018), and those which are important in terms of legislation or policy are identified. Table 1 summarises this information and details the extent of each habitat recorded here.

The nature conservation value, or potential value, of the habitat is determined within the following geographic context:

- International importance (e.g. internationally designated sites such as Special Areas of Conservation, Special Protection Areas, Ramsar sites);
- National importance (e.g. nationally designated sites such as Sites of Special Scientific Interest or species populations of importance in the UK context);
- County importance (e.g. SNCI, habitats and species populations of importance in the context of West Glamorgan);
- Local importance (e.g. important ecological features such as old hedges, woodlands, ponds);
- Site importance (e.g. habitat mosaic of grassland and scrub which may support a diversity of common wildlife species);
- Negligible importance. Usually applied to areas such as built development or areas of intensive agricultural land.

The examples are not exclusive and are subject to further professional ecological judgment.

2.4. Survey constraints

All areas of the site were readily accessible. Although some plant species would have not been visible during the survey period, the comprising common and widespread habitat types, the timing of this survey is not a significant constraint to a robust initial site assessment.

It should be noted that habitats, and the species they may support, change over time due to natural processes and because of human influence. In line with current guidelines, the survey on which this report is based is valid for two years, after which time it will need updating. This report is valid until 14th March 2025.

2.5. Study area

The study area for the desktop survey is within 1km. The study area for the Preliminary Ecological Appraisal was the footprint of the proposed development, hereafter referred to as the 'Site', and its immediate boundaries. This is the area included within the line described as "Survey area" within the legend of Map 1.

3. Results

3.1. Site description

The site comprises the ruins of Neath Abbey surrounded by managed grasslands with trees at its margins, and the nearby Gatehouse which is set in an urban environment.

3.2. Phase 1 habitats

Habitats have been classified using the Phase 1 Habitat Survey methodology, and are described below and detailed in Map 1. Habitats which are important in terms of legislation or policy are identified and is given in Table 1. Plant species that characterise each of these habitats are identified, although this is for descriptive purposes, and comprehensive inventory is not provided.

Table 1. Phase 1 habitats

Phase 1 habitat	Description	Ecological value
Amenity grassland	The majority of vegetated areas supported grassland managed for its amenity value with perennial rye-grass, annual meadows-grass, Yorkshire fog, daisy, dandelion, creeping buttercup, ribwort plantation, white clover and common mouse-ear.	Site
Scrub	Bramble scrub with locally abundant ivy was present along the eastern boundary and included elder, sampling trees and stone piles.	Site
Row of trees	Parallel rows of common ash were present in the west of the site with a row of lime trees along the northern boundary. These were set within amenity grassland. Lime trees had features with potential for day roosting bats.	Site
Buildings (Neath Abbey)	Standing walls were common across the site, some with chimneys, hollows and holes, whilst enclosed and roofed spaces were also present. Voids in the walls to either side of the western entrance to the nave have moderate suitability for day roosting and hibernating bats as do gaps, chimneys and voids associated with the lay brother's refectory and lay brothers common room (Map). Roofed sections of the undercroft have moderate suitability for day roosting and hibernating bats whilst smaller gaps and holes across the standing walls have low suitability for day roosting and hibernating bats. All areas have potential for nesting birds. A modern building is present to the south and comprise a single storey structure with a pitched roof. Access was not possible due to asbestos. This building has moderate suitability for day roosting bats but is unlikely to be used by hibernating bats.	To be confirmed
Buildings (Gatehouse)	The gatehouse is small structure in an urban area with no internal access at the time of survey. It has standing walls with some gaps and crevices with low suitability for day roosting bats in lintel and, and potential for nesting birds.	To be confirmed
Fence	The site is bordered to the north, east and south by fencing.	Site

Wall	An unvegetated stone wall provides the western boundary	
Introduced shrubs	Ornamentals plants, including rosemary, hydrangea and camelia were present to the rear of the modern building.	Site
Running water	Tennant Canal is present along the southern site boundary with River Clydach along the east.	Habitat of Principal Importance



Gatehouse - inset

0 5 m

western
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Legend

- Target note
- Scattered trees
- Fence
- Wall
- Amenity grassland
- Scrub
- Running water
- Building
- Introduced shrubs
- Tarmac
- Wall
- Hardstanding

Japanese Knotweed along river bank

Japanese Knotweed

Modern building

Title: Map 1. Phase 1 habitats

Project: Neath Abbey and
Gatehouse

Checked by: CDH Version: 01
Date: 07/04/2023

3.3. Desktop survey

The biological records search found a number of notable species within 1km. Highlighted records are likely to relate to the site and its boundaries.

Table 2. Biological records for notable species

Taxon	Common Name	Status	Distance of nearest record (m)	Number of records
Birds	Bar-headed Goose	WCA9, INNS	708	2
	Barn Owl	WCA1.1, WCA9, Bern, CITES	301	12
	Black Redstart	WCA1.1, Bern, WBAm(RSPB), UKBR(RSPB)	1136	2
	Black-headed Gull	BDir22, S7, WBR(RSPB), UKBAm(RSPB)	301	17
	Black-tailed Godwit	BDir22, WCA1.1, WBAm(RSPB), UKBR(RSPB)	1024	2
	Brambling	WCA1.1., WBAm(RSPB)	1341	1
	Bullfinch	S7, WBR(RSPB), UKBAm(RSPB)	702	10
	Canada Goose	BDir21, WCA9, INNS	301	11
	Cetti's Warbler	WCA1.1,	738	5
	Chloris chloris chloris	Bern, LBAP (CON, POW), WBAm(RSPB)	738	2
	Common Gull	BDir22, WBR(RSPB), UKBAm(RSPB)	576	10
	Common Sandpiper	WBR(RSPB), UKBAm(RSPB)	738	5
	Coot	BDir21, LBAP (BRG), WBAm(RSPB)	915	4
	Cormorant	WBAm(RSPB)	301	12
	Corncrake	BDir1, WCA1.1, WCA9, S7, Bern, WBR(RSPB), UKBR(RSPB)	301	1
	Cuckoo	S7, WBR(RSPB), UKBR(RSPB)	915	1
	Curlew	BDir22, S7, WBR(RSPB), LI(VC43),	324	12
	Dipper	Bern, WBAm(RSPB), UKBAm(RSPB)	301	9
	Dunlin	Bern, WBR(RSPB), LI(VC43), UKBAm(RSPB)	915	1
	Duncock	S7, Bern, UKBAm(RSPB)	576	15
	Egyptian Goose	WCA9, INNS	524	7
	European White-fronted Goose	WBR(RSPB),	708	1
	Fieldfare	BDir22, WCA1.1, WBAm(RSPB), UKBR(RSPB)	1136	2
	Goldcrest	Bern, WBAm(RSPB)	178	9
	Goldeneye	BDir22, WCA1.2, UKBAm(RSPB)	708	3
	Goshawk	WCA1.1, WCA9, CITES, LBAP (CLY, CON, POW, VOG)	677	3
	Great Black-backed Gull	BDir22, WBR(RSPB), UKBAm(RSPB)	708	6
	Green Sandpiper	WCA1.1, Bern, WBAm(RSPB), UKBAm(RSPB)	738	2
	Green Woodpecker	Bern, WBAm(RSPB)	859	4
	Greenfinch	Bern, WBAm(RSPB)	576	15
	Greenshank	BDir22, WCA1.1, UKBAm(RSPB)	524	1
	Grey Heron	WBAm(RSPB)	224	12
	Grey Wagtail	Bern, WBAm(RSPB), UKBR(RSPB)	178	9
	Herring Gull	BDir22, S7, WBR(RSPB), LBAP (CON, GWY, POW, VOG), UKBR(RSPB)	301	18
	House Sparrow	S7, WBAm(RSPB), UKBR(RSPB)	467	15
	Iceland Gull	Bern, UKBAm(RSPB)	915	1
	Jack Snipe	BDir21, WBAm(RSPB)	738	1
	Kestrel	S7, Bern, CITES, WBR(RSPB), LI(VC43), UKBAm(RSPB)	859	4
	Kingfisher	BDir1, WCA1.1, Bern, WBAm(RSPB), UKBAm(RSPB)	915	4
	Lapwing	BDir22, S7, WBR(RSPB),	708	8
	Lesser Black-backed Gull	BDir22, (WBAm(RSPB), UKBAm(RSPB)	301	16
	Lesser Redpoll	S7, LBAP (CON), WBAm(RSPB), UKBR(RSPB)	467	2
	Lesser Spotted Woodpecker	S7, Bern, WBR(RSPB), LI(VC43), UKBR(RSPB)	1700	1
	Linnet	S7, Bern, WBR(RSPB), UKBR(RSPB)	702	7
	Long-tailed Tit	WBAm(RSPB)	467	13
	Mallard	BDir21, WBAm(RSPB), UKBAm(RSPB)	324	13
	Manx Shearwater	Bern, WBAm(RSPB), UKBAm(RSPB)	1136	1
	Meadow Pipit	Bern, WBAm(RSPB), UKBAm(RSPB)	524	10
	Mediterranean Gull	BDir1, WCA1.1, Bern, WBAm(RSPB), UKBAm(RSPB)	738	3

	Merlin	BDir1, WCA1.1, Bern, CITES, WBR(RSPB), LI(VC43), UKBR(RSPB)	708	4
	Mistle Thrush	BDir22, Bern, WBAm(RSPB), UKBR(RSPB)	708	9
	Osprey	BDir1, WCA1.1, CITES, WBAm(RSPB), UKBAm(RSPB)	1159	1
	Oystercatcher	BDir22, (RSPB), LI(VC43), UKBAm(RSPB)	324	4
	Peregrine	BDir1, WCA1.1, Bern, CITES, LI(VC43)	508	9
	Pied Flycatcher	S7, WBR(RSPB), UKBR(RSPB)	915	1
	Pink-footed Goose	BDir22, Bern, UKBAm(RSPB)	524	4
	Pochard	BDir21, WBR(RSPB), UKBR(RSPB)	915	1
	Red Kite	BDir1, WCA1.1, WCA9, CITES, WBAm(RSPB)	738	7
	Redshank	BDir22, WBAm(RSPB), UKBAm(RSPB)	524	11
	Redwing	BDir22, WCA1.1, WBAm(RSPB), UKBR(RSPB)	1136	4
	Reed Bunting	S7, Bern, WBAm(RSPB), UKBAm(RSPB)	738	4
	Ring Ouzel	S7, Bern, WBR(RSPB), LI(VC43), UKBR(RSPB)	1136	1
	Ringed Plover	S7, Bern, WBR(RSPB), UKBR(RSPB)	915	2
	Sand Martin	Bern, WBAm(RSPB)	738	4
	Shelduck	Bern, WBAm(RSPB), UKBAm(RSPB)	576	6
	Shoveler	BDir21, CITES, WBAm(RSPB), UKBAm(RSPB)	915	1
	Skylark	BDir22, S7, WBAm(RSPB)	708	7
	Snipe	BDir21, WBAm(RSPB), LI(VC43), UKBAm(RSPB)	467	8
	Snow Goose	WCA9, INNS	779	1
	Song Thrush	BDir22, S7, Bern, WBAm	467	14
	Spoonbill	BDir1, WCA1.1, Bern, CITES, WBAm(RSPB), UKBAm(RSPB)	576	3
	Spotted Flycatcher	S7, Bern, WBR(RSPB), UKBR(RSPB)	1700	1
	Starling	BDir22, S7, Bern, WBR(RSPB), UKBR(RSPB)	301	16
	Swallow	Bern, WBAm(RSPB)	324	11
	Swift	WBAm(RSPB), UKBAm(RSPB)	708	8
	Teal	BDir21, CITES, LBAP (, WBAm(RSPB), LI(VC43), UKBAm(RSPB)	301	4
	Tufted Duck	BDir21, WBAm(RSPB)	859	3
	Water Pipit	Bern, UKBAm(RSPB)	524	7
	Wheatear	Bern, WBAm(RSPB)	738	3
	Whimbrel	BDir22, WCA1.1, WBAm(RSPB), UKBR(RSPB)	708	1
	White-fronted Goose	BDir22, S7, Bern, WBR(RSPB), LBAP (BBNP), UKBR(RSPB)	708	1
	Whitethroat	WBR(RSPB)	576	5
	Wigeon	BDir21, CITES, WBAm(RSPB), UKBAm(RSPB)	915	3
	Willow Warbler	WBR(RSPB), UKBAm(RSPB)	838	8
	Woodcock	BDir21, WBR(RSPB), UKBR(RSPB)	915	1
	Yellowhammer	S7, Bern, WBR(RSPB), UKBR(RSPB)	1033	1
	Yellow-legged Gull	UKBAm(RSPB)	708	2
Bryophytes	Campylium protensum	RDB1 (Wales) - LC, LI(VC49, LR)	1700	1
	Common Kettlewort	RDB1 (Wales) - LC, LI(VC35, LR), LI(VC41, LR), LI(VC45, LR), LI(VC48, LR), LI(VC49, LR)	301	2
	Dwarf Feather-moss	RDB1 (Wales) - LC, LI(VC43, LR)	582	2
	Great Plait-moss	RDB1 (Wales) - LC, LI(VC45, LR), LI(WWBIC)	1159	1
	Heath Star Moss	INNS	430	1
	Herzog's Pocket-moss	RDB1 (Wales) - WL, LI(VC35, EX), LI(VC41, LR), LI(VC42, LR), LI(VC44, LR), LI(VC45, LR), LI(VC47, LR)	1159	1
	Weissia controversa var. densifolia	RDB1 (Wales) - LC, LI(VC41, LR), LI(VC44, LR), LI(WWBIC)	880	1
Fish	Common Carp	LBAP (CON), INNS	738	1
	European Eel	S7, RDB1 (UK) - CR, LBAP (CLY, CON, GWY, VOG)	738	1
Fungi and Slime Moulds	Grey Tooth	S7, LBAP (CON)	1159	1
Invertebrates (insect)	Beautiful Demoiselle	LBAP (CLY, SNP), LI(BIS), LI(SEWBReC)	1136	1
	Broom Moth	S7, LBAP (GWY, VOG)	1700	1
	Calodera riparia	RDB2 (UK) - N	1544	1
	Cinnabar	S7,	79	3
	Crescent	S7, LI(BIS)	1136	1
	Deep-brown Dart	S7	1136	1
	Dingy Skipper	S7, RDB1 (UK) - VU, LI(SEWBReC)	1544	1

	Dot Moth	S7,	1136	1
	Golden-ringed Dragonfly	LI(BIS), LI(SEWBrEC)	543	4
	Hairy Dragonfly	LI(BIS), LI(SEWBrEC)	738	4
	Harlequin Ladybird	INNS	335	7
	Hedge Rustic	S7	1136	1
	Hornet Moth	LBAP (NPT)	1136	1
	Keeled Skimmer	LI(BIS), LI(SEWBrEC)	976	1
	Large Red-belted Clearwing	LBAP (NPT)	1136	1
	Marsh Fritillary	HDir, WCA5, S7, Bern, RDB1 (UK) - VU,	1317	1
	Moss Carder Bee	S7,	838	1
	Orange Upperwing	S7, LI(SEWBrEC)	1136	1
	Pearl-bordered Fritillary	WCA5, S7, RDB1 (UK) - EN, LI(SEWBrEC), LI(VC43)	1317	1
	Red-eyed Damselfly	LI(BIS), LI(SEWBrEC)	1136	1
	Sallow	S7, LBAP (GWY, VOG)	1136	1
	Sand Dart	LBAP (NPT)	1136	1
	Shore Wainscot	LBAP (NPT)	1136	1
	Streak	S7	1136	1
	Variable Damselfly	RDB1 (UK) - NT, LBAP LI(BIS), LI(SEWBrEC)	976	2
	Wall	S7, RDB1 (UK) - NT,	738	2
	White Colon	LBAP (NPT)	1136	1
	Wood Tiger	LI(BIS)	1136	1
Invertebrates (other, marine or freshwater)	Austrominius modestus	INNS	184	6
Mammals (terrestrial)	American Mink	WCA9, INNS	149	2
	Bat	EPS, WCA5, LBAP (ANG, DEN, FLI, RCT, SNP, TRA, TRF)	738	3
	Brown Hare	S7,	785	1
	Brown Long-eared Bat	EPS, HDir, WCA5, S7, Bern, RDB2 (UK),	18	2
	Common Pipistrelle	EPS, HDir, WCA5, S7, Bern, RDB2 (UK),	19	7
	Daubenton's Bat	EPS, HDir, WCA5, Bern, RDB2 (UK),	301	1
	Eastern Grey Squirrel	WCA9, INNS	1341	1
	Eurasian Badger	BA, Bern,	782	3
	Eurasian Otter	EPS, HDir, WCA5, S7, Bern, CITES, RDB2 (UK),	102	25
	Lesser Horseshoe Bat	EPS, ANII, HDir, WCA5, S7, Bern, RDB2 (UK),	2343	3
	Noctule Bat	EPS, HDir, WCA5, S7, Bern, RDB2 (UK),	734	2
	Pipistrelle	EPS, HDir, WCA5, Bern, RDB2 (UK), LBAP (ANG, BBNP,	734	1
	Pipistrelle Bat species	EPS, WCA5,	372	9
	Soprano Pipistrelle	EPS, HDir, WCA5, S7, Bern, RDB2 (UK),	18	6
	West European Hedgehog	S7, Bern,	285	17
Reptiles and Amphibians	Common Frog	HDir, WCA5, Bern,	339	3
	Common Lizard	WCA5, S7, Bern,	711	1
	Common Toad	WCA5, S7, Bern,	339	2
	Grass Snake	WCA5, S7, Bern,	796	1
	Palmate Newt	WCA5, Bern,	344	1
	Slow-worm	WCA5, S7, Bern, LBAP (	692	1
Vascular Plants	Alder Buckthorn	LBAP (GWY, NEW), LI(SEWBrEC), LI(VC47), LI(VC48, LR), LI(VC49, LR), LI(VC50, LR), LI(VC51, LR)	738	2
	Alternate Water-milfoil	LBAP (NPT), LI(SEWBrEC), LI(VC47), LI(VC50, LS), LI(VC51, LS)	1033	1
	American Skunk-cabbage	INNS	1159	1
	Arrow Bamboo	INNS	677	1
	Bee Orchid	CITES, LI(SEWBrEC), LI(VC47), LI(VC48, LR), LI(VC49, LS)	692	1
	Bluebell	WCA8, LBAP (ANG, CLY, CON, FLI, SNP, TRA, TRF)	590	11
	Brown Sedge	LI(SEWBrEC), LI(VC43), LI(VC48, LR), LI(VC49, LR), LI(VC50, LR), LI(VC51, LS)	688	2
	Butterfly-bush	INNS	301	22

Canadian Waterweed	INNS	301	5
Charlock	RDB1 (Wales) - VU	1544	1
Cherry Laurel	INNS	582	5
Common Cord-grass	LI(VC50, LR), INNS	1024	2
Corn Marigold	RDB1 (UK) - VU, LI(SEWBRcC), LI(VC47), LI(VC48, LR), LI(VC49, LR), LI(VC50, LR), LI	1341	1
Cornflower	S7, RDB1 (Wales) - CR, LI(VC49, LR), LI(VC50, LR)	1341	1
Cotoneaster	WCA9, INNS	829	3
Flowering-rush	RDB1 (Wales) - VU, LI(SEWBRcC), LI(VC43), LI(VC51, LR), LI(VC52)	75	10
Golden-samphire	RDB2 (UK) - S, LBAP (NPT), LI(SEWBRcC), LI(VC49, LS)	915	1
Greater Pond-sedge	LI(SEWBRcC), LI(VC43), LI(VC47), LI(VC48, LS), LI(VC49, LS), LI(VC50, LS), LI(V	145	11
Greater Sea-spurrey	LI(SEWBRcC), LI(VC48, LS), LI(VC50, LS)	964	3
Green Field-speedwell	LI(SEWBRcC), LI(VC48, LS)	781	1
Grey Club-rush	LI(SEWBRcC), LI(VC47), LI(VC50, LR)	230	2
Hard-grass	LI(SEWBRcC), LI(VC48, LS), LI(VC49, LR), LI(VC50, LR), LI(VC51, LS)	987	1
Hawkweed Oxtongue	LI(SEWBRcC), LI(VC43), LI(VC49, LR), LI(VC50, LR), LI(VC51, LR)	1136	1
Himalayan Balsam	WCA9, INNS	301	17
Himalayan Cotoneaster	WCA9, INNS	301	9
Himalayan Honeysuckle	INNS	33	3
Hjelmqvist's Cotoneaster	WCA9, INNS	1700	1
Hollyberry Cotoneaster	WCA9, INNS	885	1
Ivy-leaved Duckweed	LI(SEWBRcC), LI(VC43), LI(VC49, LR)	145	6
Japanese Knotweed	WCA9, INNS	145	45
Japanese Rose	WCA9, INNS	738	1
Lamiastrum galeobdolon subsp. argentatum	WCA9, INNS	1341	1
Lamiastrum galeobdolon subsp. montanum	WCA9, LI(VC48, LS), LI(VC49, LS), INNS	1341	1
Least Duckweed	INNS	1544	1
Lesser Bulrush	LI(SEWBRcC), LI(VC43), LI(VC48, LR), LI(VC49, LR), LI(VC50, LR), LI(VC52, LS)	915	1
Lesser Sea-spurrey	LI(SEWBRcC), LI(VC49, LS)	688	5
Long-bracted Sedge	LI(SEWBRcC), LI(VC49, LS), LI(VC50, LS), LI(VC51, LR)	1024	2
Montbretia	WCA9, INNS	582	12
Narrow-leaved Water-plantain	LI(SEWBRcC), LI(VC47), LI(VC52, LR)	915	2
Needle Spike-rush	LI(SEWBRcC), LI(VC47), LI(VC51, LR), LI(VC52, LS)	1033	1
New Zealand Pigmyweed	WCA9, INNS	971	1
Nuttall's Waterweed	INNS	569	5
Pampas-grass	INNS	915	2
Parsley Water-dropwort	LI(SEWBRcC), LI(VC47), LI(VC49, LS), LI(VC50, LR), LI(VC51, LS)	1136	1
Pyramidal Orchid	, LI(SEWBRcC), LI(VC47), LI(VC48, LS)	625	2
Rhododendron ponticum	WCA9, INNS	904	5
Rock Sea-lavender	LI(SEWBRcC), LI(VC49, LS), LI(VC52, LS)	915	1
Royal Fern	LI(SEWBRcC), LI(VC43), LI(VC47), LI(VC49, LS), LI(VC50, LR), LI(VC52, LS)	738	3
Sea-buckthorn	RDB2 (UK) - S,	1801	1
Sea-purslane	LI(SEWBRcC), LI(VC48, LR), LI(VC49, LS), LI(VC50, LR)	396	4
Shady Horsetail	RDB2 (UK) - S	904	1

Shore Horsetail	LI(SEWBRc), LI(Vc49, LR), LI(Vc50, LS)	569	1
Slender Club-rush	LI(SEWBRc), LI(Vc47), LI(Vc49, LR)	1033	1
Small Pondweed	LI(SEWBRc), LI(Vc43), LI(Vc47), LI(Vc48, LS), LI(Vc49, LS), LI(Vc51, LS)	230	3
Snowberry	INNS	677	4
Soft Hornwort	RDB1 (Wales) - VU, LI(SEWBRc)	1136	1
Spiked Water-milfoil	LI(SEWBRc), LI(Vc48, LR), LI(Vc50, LR)	230	3
Sweet-briar	LI(SEWBRc), LI(Vc49, LS), LI(Vc50, LS), LI(Vc51, LR)	692	1
Unbranched Bur-reed	LI(SEWBRc), LI(Vc49, LS), LI(Vc51, LS)	301	4
Various-leaved Water-starwort	LI(SEWBRc), LI(Vc47), LI(Vc48, LS), LI(Vc49, LS), LI(Vc50, LR), LI(Vc51, LS)	738	1
Wall Cotoneaster	WCA9, INNS	915	3
Waterweed	WCA9, INNS	230	2
White Stonecrop	INNS	692	1
Wild Celery	LI(SEWBRc), LI(Vc48, LS), LI(Vc49, LR), LI(Vc50), LI(Vc52, LS)	230	4
Wild Service-tree	LBAP (NPT), LI(SEWBRc), LI(Vc43), LI(Vc47), LI(Vc48, LR), LI(Vc49, LR), LI(Vc50, LS), LI(Vc51, LR)	1159	1
Wilson's Honeysuckle	INNS	1136	3
Wood Spurge	LI(SEWBRc), LI(Vc43), LI(Vc47), LI(Vc50, LR), LI(Vc51, LS)	877	1
Yellow Water-lily	LI(SEWBRc), LI(Vc49, LR)	738	3
Yellow-wort	LI(SEWBRc), LI(Vc47), LI(Vc48, LR), LI(Vc49, LS), LI(Vc52, LS)	692	2

Abbreviations

- UKBAP = UK Biodiversity Action Plan Priority Species
- UKBAP (R) = UK Biodiversity Action Plan Priority Species (Research only species)
- BDir1 = EC Birds Directive Annex 1 Species
- BDir21 = EC Birds Directive Annex 2.1 Species
- BDir22 = EC Birds Directive Annex 2.2 Species
- Bern = The Bern Convention on the Conservation of European Wildlife and Natural Habitats
- Bonn = The Bonn Convention on the Conservation of Migratory Species of Wild Animals Species
- CITES = Convention on International Trade in Endangered Species
- EPS = European Protected Species
- HDir = EU Habitats Directive Species
- NRW = Natural Resources Wales Priority Species
- RD1 (Wales) = Welsh Red Data Book listing based on IUCN guidelines
- RD1 (UK) = UK Red Data Book listing based on IUCN guidelines
- RD2 (UK) = UK Red Data Book listing not based on IUCN guidelines (Nationally Rare and Scarce)
- WBR (RSPB) = RSPB Welsh Red listed birds (not based on IUCN criteria)
- WBAm (RSPB) = RSPB Welsh Amber listed birds (not based on IUCN criteria)
- UKBR (RSPB) = RSPB UK Red listed birds (not based on IUCN criteria)
- UKBAm (RSPB) = RSPB UK Amber listed birds (not based on IUCN criteria)
- S7 = Environment Act (Wales) Section 7 Species
- WCA1.1 = Wildlife and Countryside Act Schedule 1 Part 1 Species
- WCA5 = Wildlife and Countryside Act Schedule 5 Species
- WCA8 = Wildlife and Countryside Act Schedule 8 Species
- WCA9 = Wildlife and Countryside Act Schedule 9 Species
- INNS = Invasive Non-Native Species
- WSG.P = Guidelines for the Selection of Wildlife Sites in South Wales - Primary species
- WSG.C = Guidelines for the Selection of Wildlife Sites in South Wales - Contributory species
- WVP = IUCN Threat Listing of Welsh Vascular Plants
- LBAP NPT = Local Biodiversity Action Plan Species
- LI (SEWBRc) = Locally Important Species (as identified by local specialists) in SEWBRc area
- LI (BIS) = Locally Important Species (as identified by local specialists) in BIS area
- LI (BRYO-MON) = Locally or nationally scarce or rare bryophyte in Monmouthshire
- LI (VC##) = Locally Important Species (as identified by local specialists) in Vice County ##
- LI (VC##, LS) = Locally Scarce in Vice County ##
- LI (VC##, LR) = Locally Rare in Vice County ##

- LI (VC##, EX) = Extinct in Vice County ##
- LI (VC##, UR) = Under Recorded in Vice County ##

Site of Special Scientific Interest (SSSI)

No SSSIs are within 1km.

Non-statutory nature conservation sites

The adjacent Tennant Canal to the south of the site is a Site of Importance for Nature Conservation (SINC) as is the watercourse to the east and the land beyond it (Gwlyptir Mynachlog Nedd SINC).

Other SINC are present in the landscape but are sufficiently distant that adverse effect can be discounted.

3.4. Potential for species of nature conservation importance

Habitats have been assessed from the results of the field survey for their potential to support the following protected species. Where there is no potential for a species or species group to be present within the site, or where habitats with the potential to support this species or species group will not be impacted by the proposals, they may be scoped out at this stage.

Table 3. Potential for protected or notable species

Species	Assessment	Likely value/ potential for presence
Amphibians	No features with potential for breeding amphibians were present within the site whilst there are no records for great crested newt within 1km. It is likely that only occasional common and widespread amphibians are present within this site.	Potential to be present (common and widespread species only)
Badgers	No evidence of Badgers or Badger setts is present within the Site.	Unlikely to be present
Bats	Roosting: Lime trees in the north of the site hold potential for small numbers of roosting bats, whilst built features have potential for day roosting bats. Foraging/commuting: The majority of the site is unlit and is likely to provide moderate foraging habitat to a wide range of species with the watercourse margins to the south and east, and tree lines to the north and west likely to support and accumulate flying invertebrates.	Potential for roosting in trees and buildings Moderate potential for foraging/commuting bats
Birds	Common bird species will nest within the boundary habitats and buildings. Amenity grassland habitats have negligible value for ground nesting birds due to their management regime and constant disturbance by visitors.	Likely to be present
Common Dormouse	Dormice are arboreal and are found within species-rich woodland, hedgerow and woody fruiting scrub. The amenity grassland habitat within the site would not support this animal whilst suitable linkage from the boundary scrub into wooded habitat is lacking. There are no records for dormice within 1km and they are unlikely to be present.	Negligible

Hedgehog	It is possible that an occasional Hedgehog might be associated with habitats within and bounding the Site.	Potential to be present
Otter	It is likely that Otter is actively foraging along the watercourses at the site margins.	Likely to be present
Water Vole	There are no records for water vole within 1km and they are not known to be present in this area. There are mink records for the adjacent watercourse making water vole unlikely to be present due to predation effects.	Negligible
Reptiles	Boundary habitats have potential for grass snake, common lizard and slow worm.	Potential to be present in boundary habitats
Notable invertebrates	Although habitats at this Site are likely to support common and widespread invertebrates, priority invertebrate habitats such as flushes, ponds, suitable brown-field land and soft rock cliffs are not present.	Negligible
Notable plants	Habitats within the Site provide little potential for notable or rare plants and they do not need to be considered further.	Negligible
Invasive non-native plants	Japanese Knotweed <i>Reynoutria japonica</i> was present and is listed as Invasive Non-native under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) with respect to England and Wales were present.	Present

4. Evaluation of ecological features and potential impacts

Ecological features that have the potential to be present have been assessed in light of current nature conservation policy, planning policy and wildlife legislation by an experienced ecologist (see Appendix 1). Where necessary, the ecological value of an ecological feature is given along with the potential effect of the proposed development.

If it is considered that the proposed development is likely to have no effect on features that have been identified as present, or potentially present, they may be scoped out at this stage.

4.1. Habitats of nature conservation importance

Protected habitats

Habitats are protected under international and national legislation including The Conservation of Habitats and Species Regulations 2017, and Wildlife and Countryside Act 1981 (as amended). These have been formulated into policy measures, with many examples protected under formal site designations such as SSSIs and SACs.

No habitats of European Community Importance as defined within The Conservation of Habitats and Species Regulations 2017 were present within this site. Protected habitats of this type are not a consideration for this project.

Notable habitats

Fifty-five habitats are listed as being of key significance to sustain and improve biodiversity in relation to Wales. Under Section 7 of the Environment (Wales) Act there is a need for these habitats to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity. These habitats are the subject of National and Local Biodiversity Action Plans. Hedgerows are given particular protection under the Protection of Hedgerows Act 1997.

Tennant Canal and River Clydach

Canals and rivers are a Habitat of principal Importance listed under Section 7 of the Environment Act (Wales). It is only that any proposal associated with the Abbey would result in a loss of habitat extent. However, depending on works these habitats may need to be protected during the construction phase.

4.2. Species of nature conservation importance

Overview

Many native wild plants and animals are protected by law with the two main legal instruments being the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017. The latter consolidates amendments to the Conservation (Natural Habitats, &c) Regulations 1994 which transposed into UK Law the EU Habitats Directive.

A range of species of fungi, plant or animal are listed in Section 7 of the Environment (Wales) Act 2016 as being of principal importance for the purposes of conserving biodiversity. There is a need for these species to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity. These species are the subject of National and Local Biodiversity Action Plans.

Amphibians

The four native widespread amphibians (Common Frog, Common Toad, Common Newt and Palmate Newt) are given limited protection from trade under the Wildlife and Countryside Act 1981 (as amended).

Great Crested Newt (GCN) and Natterjack Toad and their breeding sites and resting places (during all parts of their lifecycle) are fully protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017. They are identified as European Protected Species. Under these laws it is an offence to:

- capture, kill, disturb or injure GCN and Natterjack Toads (on purpose, or by not taking enough care);
- damage or destroy a breeding or resting place (even accidentally);
- obstruct access to their resting or sheltering places (on purpose, or by not taking enough care);
- possess, sell, control or transport live or dead newts, or parts of them;
- take GCN or Natterjack Toad eggs.

The very rare Pool Frog, only recently recognised as a native amphibian, is fully protected under the Wildlife and Countryside Act 1981 (as amended).

GCN, Natterjack Toad, Common Toad and Pool Frog are Section 7 species.

There is potential for common and widespread amphibians to be present. However, there is negligible potential for breeding here. Adverse effect is unlikely, and no mitigation is required.

Bats

Bat species and their breeding or resting places (roosts) are protected under the Wildlife and Countryside Act 1981 (as amended), and The Conservation of Habitats and Species Regulations 2017. They are identified as European Protected Species. Under these laws it is an offence to:

- capture, kill, disturb or injure bats (on purpose or by not taking enough care);
- damage or destroy a breeding or resting place (even accidentally);
- obstruct access to their resting or sheltering places (on purpose or by not taking enough care); or
- possess, sell, control or transport live or dead bats, or parts of them.

Seven species of bat are listed under Section 7.

The gatehouse and all built features associated with the Abbey ruins have potential for small numbers of day roosting and hibernating bats. Although no evidence of use was found such as bat droppings, many potential roosting features were present at height and inaccessible including areas such as large cracks and fissures in walls, square (joist) holes through walls which have been partially blocked with stone, lintel gaps (wood and stone), voids and chimneys within standing walls, and enclosed rooms. Examples are shown below.



Joist hole with potential for roosting/hibernating bats



Crack with potential for roosting/hibernating bats



Chimney with potential for roosting bats



Void with potential for roosting bats



Room with potential for roosting bats



Wooden lintel with potential for roosting/hibernating bats



Wooden lintel with potential for roosting/hibernating bats (Gatehouse)



Modern building with gaps to the verge with potential for roosting bats

Depending on proposals, bat emergence and re-entry surveys may be required to allow an informed assessment of impacts, and this could include lime trees along the railway boundary if works are proposed there also. If proposals have potential to impact hibernating bats, hibernations surveys should also be completed.

The current vegetated habitats at the site boundaries have value for foraging bats, including light averse species. Depending on proposals, mitigation may be required and may need to be informed by bat activity surveys.

Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended) from being killed, injured or captured whilst their nests and eggs are protected from being damaged, destroyed or taken. Birds which are listed under Schedule 1 of the Act are given additional protection against disturbance.

A number of species of bird are listed under Section 7.

Buildings and boundary habitats will support widespread and common nesting bird species.

Any activities which impact these habitats have potential to adversely impact nesting birds. Any vegetation clearance, aside from the short well-maintained grassland, is likely to require mitigation for nesting birds if undertaken during bird breeding season (March -August inclusive).

Any activities that expose invertebrates, such as earth worms and grubs, will provide an additional food resource for local birds and will have a positive temporary effect, particularly when adults are feeding nested chicks.

Hedgehog

Hedgehogs are partially protected under the Wildlife & Countryside Act and may not be trapped without a licence. Hedgehogs are listed under Section 7.

There is potential for Hedgehog to be associated with boundary habitats. It is unlikely that proposals would affect boundary habitats in a way that would impact hedgehog and no mitigation is required,

Reptiles

All native reptiles are protected to some degree under the Wildlife and Countryside Act 1981 (as amended), whilst our two rarest species, the Sand Lizard and Smooth Snake, are given full protection under the Act, and also identified as European Protected Species.

The four common species (Slow Worm, Adder, Grass Snake and Common (Viviparous) Lizard) are protected from deliberate killing, injury and trade.

The two rare species, Sand Lizard and Smooth Snake, are given more protection that includes protection from capture and deliberate or reckless killing, injury or disturbance. Their breeding or resting places are also protected from obstruction or damage, even if it were accidental.

All five native reptiles are listed under Section 7.

The Site has potential to support common lizard, grass snake and slow worm at its margins. Depending on proposals for the site, mitigation may be required and if a significant extent of semi-natural habitat is lost this may need to be informed by further surveys.

Otter

Otter, and their breeding or resting places (holts and couches), are protected under the Wildlife and Countryside Act 1981 (as amended), and The Conservation of Habitats and Species Regulations 2017. They are identified as European Protected Species. Under these laws, it is an offence to:

- capture, kill, disturb or injure otters (on purpose or by not taking enough care)
- damage or destroy a breeding or resting place (deliberately or by not taking enough care)
- obstruct access to their resting or sheltering places (deliberately or by not taking enough care)
- possess, sell, control or transport live or dead otters, or parts of otters

Otter are listed under Section 7.

It is likely that Otter are feeding along the adjacent watercourses although habitats within the site are not suitable for resting Otter (holt or couch) due to frequent disturbance by dog walkers. Depending on proposals, foraging Otter may be impacted.

4.3. Invasive non-native plants

Several plant species in the UK are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) which makes it illegal to allow them to spread.

Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), relates to the introduction of plant and animal species that are not native to the UK. It is an offence to 'cause to grow in the wild' and spread any plant that is listed under this Schedule.

This includes the Japanese Knotweed that is growing in two locations. Control of these plants is recommended.

4.4. Non-statutory Nature Conservation Sites (NNCS)

The adjacent Tennant Canal to the south of the site is a Site of Importance for Nature Conservation (SINC) as is the watercourse to the east and the land beyond it (Gwlyptir Mynachlog Nedd SINC).

Mitigation should be adopted to prevent adverse effects on these adjacent areas.

5. Recommendations for mitigation and further surveys

Mitigation

Where there is potential that the proposed development will have a significant¹ effect on a valued ecological feature of nature conservation interest, recommendations for mitigation are made based on the mitigation hierarchy suggested in Paragraph 118 of the National Planning Policy Framework and detailed in Paragraph: 018 Reference ID: 8-018-20140306 of National Planning Practice Guidance;

- Avoidance –significant harm to wildlife species and habitats should be avoided through design.
- Mitigation – where significant harm cannot be wholly or partially avoided, it should be minimised by design, or by the use of effective mitigation measures that can be secured by, for example, conditions or planning obligations.
- Compensation – where, despite whatever mitigation would be effective, there would still be significant residual harm, as a last resort, this should be properly compensated for by measures to provide for an equivalent value of biodiversity.

Where the detail of a proposal is unknown, such as in outline planning applications, general mitigation will be suggested. This should be re-addressed once final plans are known.

Further survey work

Where further survey work is not recommended, this is because it is the professional judgement of the ecologist that adequate information is already available and further surveys would not make any material difference to the assessment provided.

Where the information within this report is insufficient to allow a full description of the nature conservation features of the site along with a robust assessment of the potential effects on these features, further survey work will be recommended.

5.1 Habitats of nature conservation importance

To ensure compliance with nature conservation legislation and planning policy, the following recommendations are made with regards to habitats:

Tennant Canal and River Clydach

Depending on proposals these habitats may need to be protected during any construction phase. These would best be detailed in a Construction Environment management Plan and may include sections on pollution, protective fencing, dust, storage of materials and wildlife.

¹ For the purposes of this report, a practical approach has been taken to define the term 'significant'. If an effect is sufficiently important to be given weight in the planning process or to warrant the imposition of a planning condition, it is likely to be 'significant' in the context of the level under consideration (BSI, 2013).

5.2. Protected species and species of nature conservation importance

To ensure compliance with nature conservation legislation and planning policy, the following recommendations are made with regards to species:

Bats

A variety of potential bat roosting features are associated with Neath Abbey ruins, Gatehouse, a modern building to the south, and lime trees, whilst boundary features may be used by commuting and foraging bats, including light averse species. Proposals that could require mitigation informed by bat emergence and/or activity surveys include, but are not limited to:

- Change of use of enclosed rooms
- Repairs to walls
- Installation of additional external lighting
- Demolition/conversion of the modern building
- Tree felling/management.

As soon as proposals are drafted, this report and its conclusions should be re-visited.

Birds

It is likely that occasional common bird species nest within built and vegetated habitats within the Site. If any of these habitats are to be cleared, disturbed or managed during the accepted bird nesting season (March to August inclusive), the habitat should be thoroughly inspected, by a suitably qualified person, prior to disturbance. If nesting birds are found, all activities likely to damage the immediate area should be delayed until chicks have fledged.

Reptiles

The Site has potential to support common lizard, grass snake and slow worm at its margins.

Provided impacts are limited in extent, by following simple mitigation, any adverse impact can be avoided. This only needs to be applied along the Site margins.

During vegetation clearance, the following RAMs will be adopted:

Clearance during the active period (late March to October):

If clearance is to occur during the active reptile season (late March to October) areas to be affected should be de-vegetated prior to any site activities under the supervision of a suitably qualified ecologist.

Any vegetation clearance should consist of a two-stage directional cut comprising an initial cut to no less than 20cm high, followed by a period of at least 48 hours, followed by a repeat cut to ground level. This cut should be directed towards retained habitat to encourage the safe movement of any present reptiles. Any such activities should be conducted within the accepted active season (March to October inclusive), and under the direct supervision of a suitably qualified person who will complete a finger tip search prior to works. Vegetation clearance may need to undertake precautions relating to nesting birds (as detailed above).

Clearance during the hibernation period (November to mid-March):

Any potential hibernacula features such as log/debris piles should be dismantled by hand during the reptile active period.

Otter

Otter is likely to be present in adjacent watercourses. If any ground works are proposed within 50 metres of the river/canal or additional external lighting is proposed for these habitats, further surveys may be required to assess the likely impacts.

5.3. Invasive non-native species

Japanese Knotweed is present in two locations.

A method statement should be produced for any works within 7 metres of this area (including any excavations) and a plan developed to eradicate Japanese Knotweed from the Site.

6. Further survey work

Information within this report is sufficient to allow a robust assessment of the potential effects on the majority of ecological features associated, or potentially associated, with this Site.

However, depending on the proposal for this site the following phase 2 surveys may be required.

- Bat emergence surveys (buildings) – sections of built features where there is potential for impact on day roosting bats should be subject to at least two dusk emergence surveys in the bat active period. Remote monitoring may also be required in voids, chimneys and rooms.
- Bat emergence surveys (trees) – if large trees along the railway boundary are to be felled/managed, they should be inspected by a suitably licenced ecologist for features suitable for bats. If suitable features are found, two bat emergence surveys should be completed to inform mitigation and this should include the use of night vision aids (NVAs).
- Bat hibernation surveys - sections of built features where there is potential for impact on hibernating bats should be subject to two hibernation survey visits by a suitably licenced ecologist, one in mid-January and one in mid-February.
- Bat activity surveys – if additional external lighting will impact linear boundary habitats, bat activity surveys may be required. This could include three walked bat activity transects, one each in Spring, summer and autumn, and three periods of remote monitoring.
- Otter survey - If any ground works are proposed within 50 metres of the river/canal or additional external lighting is proposed for these habitats an Otter survey should be completed by a suitable experienced ecologist. These can be done at any time of the year.

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Appendix 1:

Legislation and Policy used to assess habitats and species

Environment (Wales) Act 2016

The Environment (Wales) Act puts in place the legislation needed to plan and manage Wales' natural resources in a more proactive, sustainable and joined-up way.

The Act received Royal Assent in 2016. It delivers against Welsh Government's Programme for Government commitment to introduce new legislation for the environment.

European Habitats and Species Directive (CEC, 1992)

The main aim of the Habitats Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those habitats and species of European importance.

European Red Data lists (IUCN, 2000)

International Union for Conservation of Nature (IUCN) and the European Commission have been working together on an initiative to assess around 6,000 European species according to IUCN regional Red Listing Guidelines. Through this process they have produced a European Red List identifying those species which are threatened with extinction at the European level so that appropriate conservation action can be taken to improve their status.

European Council Birds Directive (CEC, 1979)

The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. An important part of this Directive is the identification and classification of Special Protected Areas (SPAs) to protect vulnerable bird species listed in Annex 1 of the Directive and regularly occurring migrating species.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

This Act is the primary legislation that protects animals, plants and certain habitats in the UK.

The Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats and Species Regulations 2017 consolidate and update the Conservation of Habitats and Species Regulations 2010, and transpose Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("the Habitats Directive") and elements of Directive 2009/147/EC on the conservation of wild birds ("the Birds Directive") in England, Wales, and to limited extent, Scotland and Northern Ireland.

The objectives of the Habitats Directive is to protect biodiversity through the conservation of natural habitats and species of wild fauna and flora. The Directive lays down rules for the protection, management and exploitation of such habitats and species.

The Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species. These sites form a network termed Natura 2000 and include Special Areas of Conservation and Special Protection Areas.

Protection of Badgers Act 1992

The Protection of Badgers Act 1992 consolidated and improved previous legislation. Under the Act it is an offence to kill, injure or take a Badger, or to damage or interfere with a sett used by a Badger unless a licence is obtained from a statutory authority.

The Hedgerow Regulations 1997

The Hedgerows Regulations 1997 protect certain hedgerows from being removed (uprooted or destroyed) if they meet certain criteria.

The Countryside and Rights of Way (CROW) Act 2000

This Act increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation.

Circular 06/2005 Biodiversity and geological conservation – statutory obligations and their impact within the planning system

This circular provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements the national planning policy in the National Planning Policy Framework and the Planning Practice Guidance.

Natural Environment and Rural Communities Act 2006

The Act made amendments to the both the Wildlife and Countryside Act 1981 and the Countryside and Rights of Way (CROW) Act 2000. For example, it extended the CROW biodiversity duty to public bodies and statutory undertakers.

UK Post-2010 Biodiversity Framework, 2012

The 'UK Post-2010 Biodiversity Framework', published in July 2012, succeeds the UK BAP and 'Conserving Biodiversity – the UK Approach', and is the result of a change in strategic thinking.

Planning (Wales Act) 2015

As of 6th July 2015, the Planning (Wales) Act 2015 came into force. This Act puts into place delivery structures, processes and procedures to create a modern delivery framework for the preparation of development plans and planning decisions, ruling that any statutory body carrying out a planning function must exercise those functions in accordance with the principles of sustainable development as set out in the Well-being of Future Generations (Wales) Act 2015.

Planning Policy Wales 2016 (Ninth Edition)

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government, establishing a commitment towards sustainable development within the planning system. It envisions the planning system to recognise the threat of climate change, and to reconcile the need of development and conservation; fundamental for sustainable development.

The natural choice: securing the value of nature (2011) (Natural Environment White Paper)
This White Paper outlines the Governments vision for the future of landscape and ecosystem services.