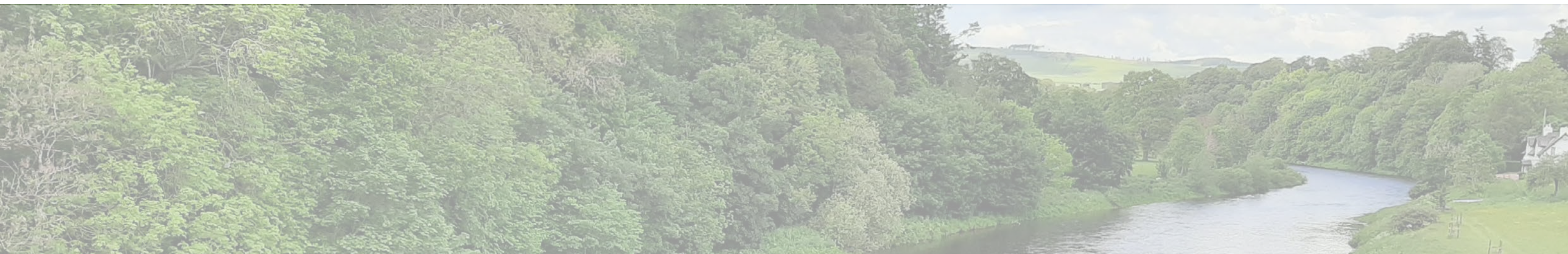
Appendices

A.1 Tree and Woodland Assessment
A.2 Ecological Appraisal
A.3 Consultation Responses



A.1 Tree and Woodland Assessment

Alan Motion Tree Consulting Ltd
Chartered Forester, Arboricultural Consultant

#



Tree and Woodland Assessment

Lowood, Tweedbank

For

LUC and Scottish Borders Council

06 August 2019

Institute of Chartered Foresters
Registered Consultant

Fairlie House, Main Street, Buchlyvie, Stirling FK8 3LX
T: 01360 850534 ● Mob: 07866 389284 ● E: alan@alanmotion.co.uk
Director: Alan R Motion MBE, BScFor, FICFor, CEnv, MArborA. Reg No SC396461

1. GENERAL INTRODUCTION

1.1. Alan Motion Tree Consulting Ltd has undertaken a brief overview of existing trees and woodlands within Lowood Estate at Tweedbank, for LUC on behalf of Scottish Borders Council, in connection with proposed mixed use development.

1.2. This initial survey and report provides a description of the broad categories of tree and woodland cover, their distribution, and relative arboricultural/silvicultural value, and highlights those areas where future development has the potential to impact adversely on tree cover. It identifies areas where future development might proceed with little or no impact on existing trees and woodlands.

1.3. This report has been prepared in order to inform the masterplanning process. It does not provide the level of detail that would be required to inform detailed design considerations. A full, detailed tree survey in accordance with the recommendations of BS5837:2012 "Trees in relation to design, demolition and construction – Recommendations" will be required as detailed designs emerge.

2. SITE DESCRIPTION

2.1. Lowood Estate lies to the north of the Borders Railway at Tweedbank Station, and is enclosed to the west, north and east by the River Tweed. The estate is a mixture of pasture and policy woodland, with a few scattered parkland trees. The land has a generally northerly aspect, sloping down to the river.

2.2. Lowood House is towards the river within mature, ornamental gardens. Long-established woodlands provide good enclosure and seclusion for the house. Lying to the west of the house are further houses, cottages and buildings at Bridgend.

2.3. The earliest edition Ordnance Survey maps (Six Inch First Edition 1843-1882) shows the gardens and parkland extending to the south and east of the house. A stone wall forms the southern site boundary, and a linear woodland of beech and Scots pine provides a more-or-less continuous screen along this edge. A row of mature beech

trees lines the estate access road beyond the boundary wall. A pond is present within the open parkland, and individual trees are shown throughout the parkland, and along field boundaries to the west of Bridgend.

Ordnance Survey 6 Inch 1st Edition, 1843-1882. National Library of Scotland

2.4. The southern woodland edge remains today, and is dominated by mature beech and Scots pine, but becoing more diverse towards its western end, where ash and sycamore become more obvious. Although not recorded as such in the Ancient Woodland Inventory Scotland, these woodlands are Long-established of Plantation Origin.

2.5. A section of mature conifer plantation, comprising Sitka spruce and larch, now grows over much of the area at Well Park on the former gravel pit. This area is suffering from wind damage and is in a poor condition. It will need to be felled in the near futue.

2.6. The original woodlands to the east of Lowood House also remain, containing a mix of species including beech, oak, Scots pine and sycamore.These extend down a steep bank towards the river.

2.7. More recent areas of woodland are also present within the estate. A mixed woodland containing Douglas fir and Scots pine, with underplanting of beech, gean and western hemlock, grows on the slope rising north from the pond. Along the nortehrn edge of this is a narrow strip of mature European larch.

2.8. In the west of the site, west of Bridgend, there are blocks of woodland including young broadleaved planting; a central block of early-mature broadleaved woodland consisting of oak, alder and gean; and an early-mature block of Sitka spruce and larch lying to the west of this.

2.9. Established tree cover extends along the north-west edge of the estate along the edge of river walkway.

2.10. Within the open areas of pasture around the pond; and to the north-east of the internal estate road, there are scattered remnants of the original parkland trees including beech, sycamore, horse chestnut and oak. There are some good early-mature specimens of common walnut to the north-west of the pond.

3. POTENTIAL DEVEOPMENT IMPACTS

3.1. The site has been identified for a mixed development of commercial and residential. Potential access routes into the site include utilising the existing road serving Tweedbank Station; and a new bridge and access from Tweedbank Drive, joining the access road to Bridgend.

3.2. Commercial development is likely to be located in the open ground to the south and east of the pond, with residential development to the north and west of the pond; and to the west of Bridgend.

3.3. It would be possible to form a new access road through an existing gap in the southern boundary woodland, with only minimal impact on existing trees (one

Category B Scot spine removed). Road alignment would need to avoid impact on existing high-quality parkland oak and beech trees which are located close to the south-east corner of the pond, although a few of the mature beech trees here are in poor and declining condition.

3.4. Residential development to the north of the southern boundary woodland can be accommodated with minimal impact on tree cover. A sufficient buffer will be needed to minimise potential impact on the very large, edge trees which are dominated by beech with low and spreading canopies. The impact of shading from these trees will have a significant impact on any adjacent development.

3.5. The poor and unstable conifer crop at Well Park in the former gravel pit will need to be clear-felled. This could provide an opportunity for some limited residential development. The line of oak trees along the edge of the existing small field would need to be retained and protected.

3.6. Land to the west of Bridgend provides considerably greater scope for development. It could be acceptable to remove the existing young plantation, and the spruce/larch plantation to accommodate development. The central broadleaved woodland is well-established and could be retained, with a new road located along its northern edge to access the western section. Alternatively, a new road could cut through the central woodland block without compromising stability and longevity of the retained tree cover.

3.7. In order to comply with current Scottish Government policy on the control of woodland removal, any loss of woodland area should be compensated with replacement planting. It may be possible and acceptable to provide compensatory planting on the arable field in the north-west of the estate, part of which lies in the floodplain. Further planting could be accommodated in the existing meadow pasture in the north-east of the estate, extending to the river corridor. Any planting here would need to be of smaller scale, group planting in order to maintain the open parkland/meadow character. New planting that extended along the northern edge of the estate road, on the higher ground, would provide benefit in screening long-

distance views of any development from the B6374 road, on the east side of the river valley.

3.8. The plans accompanying this report show the broad woodland areas, prominent tree groups, and significant individual specimen trees. Based on these features, the second plan indicates potential development areas, access points, and areas that might accommodate compensatory planting.

4. SCOTTISH GOVERNMENT POLICY ON CONTROL OF WOODLAND REMOVAL

4.1. The guiding principles of the Scottish Government's policy are:

- There is a strong presumption in favour of protecting Scotland's woodland resources.
- Woodland removal should be allowed only where it would achieve significant and clearly defined additional public benefits (note that public benefits include social, economic and environmental benefits). In appropriate cases a proposal for compensatory planting may form part of this balance.
- Approval for woodland removal should be conditional on the undertaking of actions to ensure full delivery of the defined additional public benefits.
- Planning conditions and agreements are used to mitigate the environmental impacts arising from development and Forestry Scotland will also encourage their application to development-related woodland removal.
- Where felling is permitted but woodland removal is not supported, conditions conducive to woodland regeneration should be maintained through adherence to good forestry practice as defined in the UK Forestry Standard.

4.2. Woodland removal, with compensatory planting, is most likely to be appropriate where it would contribute significantly to:

- helping Scotland mitigate and adapt to climate change;
- enhancing sustainable economic growth or rural/community development;
- supporting Scotland as a tourist destination;
- encouraging recreational activities and public enjoyment of the outdoor environment;
- reducing natural threats to forests or other land; or

- increasing the social, economic or environmental quality of Scotland's woodland cover.

4.3. The policy states that there will be a strong presumption against removing, amongst other designations, ancient semi-natural woodland; areas supporting priority habitats and species listed in the UK Biodiversity Action Plan; and woodlands critical to water catchment management or erosion control.

4.4. Where compensatory planting is stipulated as a requirement of planning permission, specifications of that planting will be determined by the relevant planning authority.

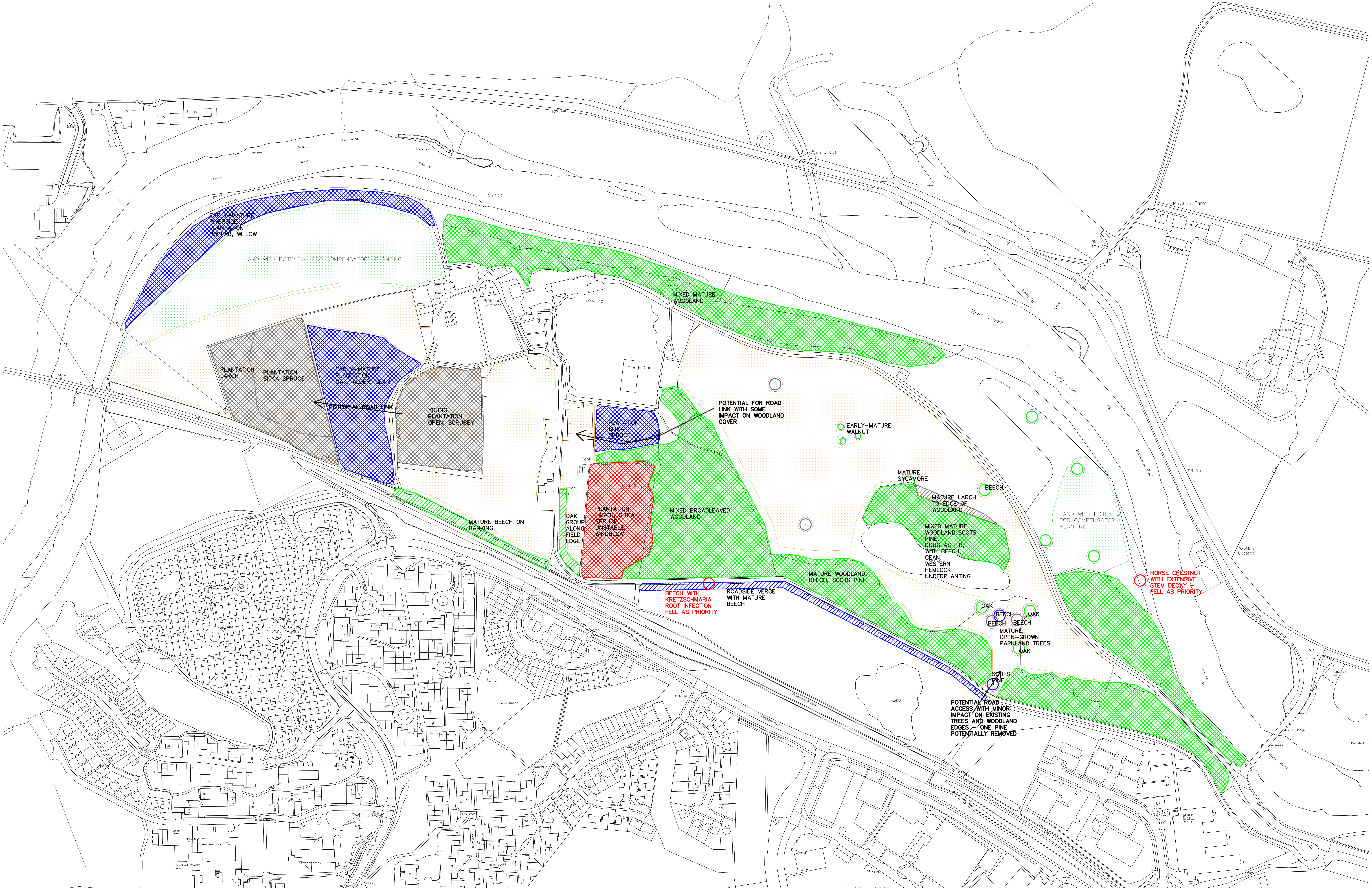
Alan Motion Tree Consulting Ltd
Chartered Forester, Arboricultural Consultant

Fairlie House–Main Street–Buchlyvie–Stirling–FK8 3LX
Mob–07866 389284 Tel–01360 850534
alan@alanmotion.co.uk
www.alanmotion.co.uk

CLIENT: LUC/Scottish Borders Council
PROJECT: Lowood, Tweedbank
DRAWING TITLE: Tree Character Assessment
DRAWING No: SBC–LUC–TS–01
DATE: 6–8–19 | SCALE: 1:2500 at A2 | REV:

- 3895 TREES CATEGORY A
- 3895 TREES CATEGORY B
- 3895 TREES CATEGORY C
- 3895 TREES CATEGORY U
- ○ ROOT PROTECTION AREA BS5837:2012 S4.6.
- ▨ TREE GROUP
- ▦ WOODLAND
- ▦ HEDGEROW OR SCRUB

NOTE: hatch colour denotes BS5837 Category:
Cat A – Green
Cat B – Blue
Cat C – Grey
Cat U – Red



EARLY-MATURE RIVERSIDE PLANTATION POPLAR, WILLOW
LAND WITH POTENTIAL FOR COMPENSATORY PLANTING
PLANTATION LARCH
PLANTATION SITKA SPRUCE
EARLY-MATURE PLANTATION OAK, ALDER, GEAN
POTENTIAL ROAD LINK
YOUNG PLANTATION, OPEN, SCRUBBY
MIXED MATURE WOODLAND
POTENTIAL FOR ROAD LINK WITH SOME IMPACT ON WOODLAND COVER
PLATATION SITKA SPRUCE
EARLY-MATURE WALNUT
MATURE SYCAMORE
BEECH
MATURE LARCH TO EDGE OF WOODLAND
MIXED MATURE WOODLAND:SCOTS PINE, DOUGLAS FIR, WITH BEECH, GEAN, WESTERN HEMLOCK UNDERPLANTING
LAND WITH POTENTIAL FOR COMPENSATORY PLANTING
MATURE BEECH ON BANKING
OAK GROUP ALONG FIELD EDGE
PLANTATION LARCH, SITKA SPRUCE, UNSTABLE, WINDBLOW
MIXED BROADLEAVED WOODLAND
MATURE WOODLAND, BEECH, SCOTS PINE
HORSE CHESTNUT WITH EXTENSIVE STEM DECAY - FELL AS PRIORITY
BEECH WITH KRETZSCHMARIA ROOT INFECTION - FELL AS PRIORITY
ROADSIDE VERGE WITH MATURE BEECH
OAK
BEECH
BEECH
BEECH
OAK
MATURE, OPEN-GROWN PARKLAND TREES
OAK
SCOTS PINE
POTENTIAL ROAD ACCESS WITH MINOR IMPACT ON EXISTING TREES AND WOODLAND EDGES - ONE PINE POTENTIALLY REMOVED
River Tweed
Lowood
Bridgend Cottages
Tennis Court
Tank
Allan Bridge
Pavilion Farm
Pavilion Cottage
Quarry Stream
Boldside Pool
Shingle
Path (um)
TWEEDBANK

Alan Motion Tree Consulting Ltd
Chartered Forester, Arboricultural Consultant

Fairlie House-Main Street-Buchlyvie-Stirling-FK8 3LX
Mob-07866 389284 Tel-01360 850534
alan@alanmotion.co.uk
www.alanmotion.co.uk

CLIENT: LUC/Scottish Borders Council

PROJECT: Lowood, Tweedbank

DRAWING TITLE: Potential Development Zones

DRAWING No: SBC-LUC-TP-01

DATE: 6-8-19 | SCALE: 1:2500 at A2 | REV:

3895 TREES CATEGORY A
3895 TREES CATEGORY B
3895 TREES CATEGORY C
3895 TREES CATEGORY U

ROOT PROTECTION AREA BS5837:2012 S4.6.

TREE GROUP
WOODLAND
HEDGEROW OR SCRUB

NOTE: hatch colour denotes BS5837 Category:
Cat A - Green
Cat B - Blue
Cat C - Grey
Cat U - Red

POTENTIAL DEVELOPMENT ZONES

POTENTIAL COMPENSATORY PLANTING

A.2 Ecological Appraisal

www.landuse.co.uk

Lowood

Preliminary Ecological Appraisal Report

Prepared by LUC
September 2019

Planning & EIA
Design
Landscape Planning
Landscape Management
Ecology
GIS & Visualisation

LUC LONDON
43 Chalton Street
London
NW1 1JD
T +44 (0)20 7383 5784
london@landuse.co.uk
LUC BRISTOL
12th Floor Colston Tower
Colston Street Bristol
BS1 4XE
T +44 (0)117 929 1997
bristol@landuse.co.uk
LUC GLASGOW
37 Otago Street
Glasgow
G12 8JJ
T +44 (0)141 334 9595
glasgow@landuse.co.uk
LUC EDINBURGH
28 Stafford Street
Edinburgh
EH3 7BD
T +44 (0)131 202 1616
edinburgh@landuse.co.uk
LUC LANCASTER
Lancaster Environment Centre
Lancaster University
Lancaster LA1 4YQ
+44 (0)1524 592 829
lancaster@landuse.co.uk
LUC MANCHESTER
2 Mount Street
Manchester
M2 5WQ
+44 (0)161 3026640
manchester@landuse.co.uk

Offices also in:
Bristol
Edinburgh
Glasgow
Lancaster
London
Manchester

FS 566056 EMS 566057

Land Use Consultants Ltd
Registered in England
Registered number: 2549296
Registered Office:
43 Chalton Street
London NW1 1JD
LUC uses 100% recycled paper

Project Title: Lowood. Preliminary Ecological Appraisal

Client: Scottish Borders Council

Version	Date	Version Details	Prepared by	Checked by	Approved by
1	23/09/2019	Draft	AM	JT	JT
2	21/10/19	Amended Draft	JT		TM

Project Code: 10833

Contents

Tables

1 Chapter 1

Executive Summary

1.1 LUC was commissioned by the Scottish Borders Council in August 2019 to undertake an Extended Phase 1 Habitat Survey of the Lowood Estate and provide a Preliminary Ecological Appraisal report, to provide input for Supplementary Planning Guidance.

1.2 Key findings of the survey are summarised in **Table 1.1** below.

Table 1.1: Summary of Findings

Ecological Feature	Key Findings
Habitats	The site is primarily comprised of grazed parkland, consisting of semi-improved neutral grassland and improved grassland surrounded by broadleaved woodland. The site is bounded to the north, west and east by the River Tweed and to the south by the new Borders Railway line and station, residential properties and an industrial estate. The centre of the site consists of Lowood House, historically associated residential properties and a plant nursery.
Protected Species	Badger setts were recorded at two locations within the site; both main setts and outlier setts were recorded. Evidence of squirrel was found at two locations within the woodland areas. We cannot confirm whether these were red or grey squirrel signs as no individuals were seen, though both species have been recorded in the area.

2 Introduction

2.1 LUC was appointed by the Scottish Borders Council in August 2019 to undertake an Extended Phase 1 Habitat Survey on the Lowood Estate, Tweedbank. The survey was commissioned to inform the council as they draft Supplementary Planning Guidance (SPG) and to help inform future requirements for detailed surveys, mitigation requirements, enhancement opportunities, and a possible strategic-level Habitat Risk Assessment (HRA) for future development proposals.

2.2 This report sets out the methods adopted and the baseline findings of the Extended Phase 1 Habitat Survey. It also details potential constraints which may be imposed on future developments and enhancement opportunities which could be adopted for this site.

Site description

2.3 The site is located immediately north of Tweedbank in the Borders; between Melrose and Galashiels. The site consists mainly of parkland used for the grazing of cows and sheep, with large areas of broadleaf woodland and smaller areas of coniferous woodland throughout. There are a small number of buildings within the site which consist of the main Lowood House, residential properties and a plant nursery which is made up of wooden sheds and poly tunnels. To the north, west and east the site is bound by the River Tweed and to the south is bordered by the new Borders Railway line and end terminus. Further south are residential buildings and a small industrial estate.

2.4 Photographs of the site and are provided in **Appendix 1**.

Proposed Development

2.5 Though no specific development has been planned, the site has been identified by the Council as having development potential and an Extended Phase 1 Habitat Survey has been sought to determine the baseline environmental data for the site.

Policy and legislation

2.6 The report has been prepared in cognisance of relevant legislation and policy, including European and domestic environmental legislation, UK nature conservation policy and local biodiversity guidance.

2.7 European and National legislation along with Planning Policy and guidance relevant to the site is listed below:

- The Conservation (Natural Habitats, &c,) Regulations 1994 as amended;
- The Wildlife and Countryside Act 1981 (as amended);
- Protection of Badger Act 1992 (as amended); and
- Scottish Planning Policy.

3 Methods

Overview

3.1 The Extended Phase 1 Habitat Survey was undertaken by LUC and comprised of a field survey conducted by qualified ecologists. A desk study was completed using data supplied by the Scottish Borders Council, which was undertaken by The Wildland Information Centre (TWIC).

3.2 Each of the survey components is set out as such;

3.3 **Desk Study** – a review of existing records of designated sites and protected species activity at the site and in its vicinity; and

3.4 **Field Study** - based on an Extended Phase 1 Habitat Survey, the field study comprised various elements, including an assessment of the site's potential to support protected species.

Desk Study

3.5 The desk study involved a review of the records (supplied by TWIC) of protected species activity at the site and in a 2 km vicinity. Applications to Scottish Badgers and the Borders Bat Group were also placed for further historical data.

3.6 Designated sites were searched for using SNH Sitelink[1] and non-designated sites through the Scottish Borders Council Local Development Plan interactive mapping tool[2].

Field Study

3.7 An Extended Phase 1 Habitat Survey of the site was completed in accordance with JNCC[3], Bat Conservation Trust[4] and SNH[5] methodology. The survey was conducted on 19 September 2019 during warm, dry and sunny weather conditions.

3.8 The survey methods provide a rapid and standardised approach to documenting and classifying habitats together with any evidence of, and potential for, legally protected and notable fauna.

3.9 The following were searched for within the site boundary, as informed by the Scottish Borders Council Ecologist and our understanding of protected species in southern Scotland:

- signs of otter activity including spraints, tracks, feeding remains and holts along any watercourses within or adjacent to the site;
- signs of water vole including latrines, feeding remains, tracks and burrows along any watercourses within or adjacent to the site;
- signs of badger activity including setts, tracks, snuffle holes and latrines;
- features which may provide suitable roosting opportunities for bats within trees and buildings;

[1] Available online at SNH website. Search conducted 24/09/2019

[2] Available online through Borders Council website. Search conducted 24/09/2019

[3] JNCC. Handbook for Phase 1 habitat survey. 2010

[4] Collins, J.(ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).

[5] Protected Species Survey Advice for Developers. Badgers, Great Crested Newt, Otter, Pine Marten, Red Squirrel and Water Vole.

- the most common non-native invasive species (Japanese knotweed, giant knotweed, hybrid knotweed, giant hogweed, rhododendron and Himalayan balsam) which are subject to strict legal control.

3.10 The bat roosting potential survey takes into account the range of roosting conditions required by bats throughout the year and followed assessment criteria set out by standard guidance prepared by the Bat Conservation Trust[4].

3.11 The criteria used to categorise bat roost potential (BRP) are summarised in **Table 3.1**. The table also summarises what actions, if any, are required following classification.

Table 3.1: Bat Roost Potential Categories.

BRP Category	Roosting Habitat Features	Commuting and Foraging Habitat Features	Survey Requirement
Negligible	Negligible habitat features likely to support roosting, commuting or foraging bats		No surveys required
Low	Structures in this category offer one or more potential roost sites for individual, opportunistically roosting bats. These sites do not offer the space, shelter or appropriate conditions to support large numbers of bats or maternity roosts. Tree in this category include those of sufficient size and age to support suitable roosting features, but none are visible from the ground	Habitat on and around the site could be used by a small number of commuting bats. This category includes densely urbanised landscapes or linear vegetation features poorly connected to the wider landscape (e.g. gappy hedges in an agricultural context).	1 dusk or dawn survey required for structures. No surveys required for trees.
Moderate	Structures and trees in this category offer one or more roost site that, due to their space, shelter or conditions, offer roosting potential for a range of species. Roosts may be more permanent, rather than opportunistic. Small maternity roosts of common species may form in one of these roost sites.	Habitat on and around the site is well-connected to wider continuous habitat and offers commuting and foraging habitat to a larger number of bats across a number of species. (e.g. tree lines or linked gardens in the urban context, or continuous hedge/ tree lines and watercourses in an agricultural setting)	1 dusk and 1 dawn survey required for both structures and trees. Tree-climbing may be an appropriate alternative to dusk and dawn surveys.
High	Structures and trees in this category have one or more potential roost sites that are suitable for large number of bats. Roosts are likely to be permanent and include maternity roosts. Potential roost sites exist for a wide range of species or species of particular conservation interest.	Habitat on and around the site is diverse, continuous and linked to extensive suitable habitat. This category includes well-vegetated rivers, streams, hedgerows and woodland edge. Habitat is sufficiently diverse to offer opportunities to a wide	3 surveys, including both dusk and dawn elements. Tree-climbing may be an appropriate alternative to dusk and dawn surveys.

BRP Category	Roosting Habitat Features	Commuting and Foraging Habitat Features	Survey Requirement
		range of species or those of particular conservation interest.	

Constraints to methods

3.12 Evidence of protected species is not always discovered during a survey. This does not mean that a species is not present, hence the surveys also record and assess the ability of habitats to support protected species. The time frame in which the survey is implemented provides a 'snapshot' of activity within the survey area and cannot necessarily detect all evidence of use by a species.

3.13 All non-native species are legally controlled under of the Wildlife and Countryside Act 1981 (as amended by the Wildlife and Natural Environment (Scotland) Act 2011). The Extended Phase 1 Habitat Survey checked, in particular, for the presence of Japanese knotweed (as well as giant knotweed and hybrid knotweed), giant hogweed, rhododendron and Himalayan balsam. There may be other invasive plant species present within the survey area which were not recorded, but it is considered that this survey is sufficient to identify any significant constraints posed by invasive plants.

3.14 It is important to note that the survey was carried out at towards the end of the recognised survey season for undertaking habitat surveys. However, plants were still identifiable and it was not felt to be a significant constraint to the study.

3.15 A large proportion of the banks of the River Tweed were not accessible due to the steepness of the land or thick vegetation. As such not all suitable habitat was able to be surveyed in detail for evidence of otter.

4 Results

Desk Study

4.1 The desk study identified the following protected species within the 2 km buffer:

- Otter *Lutra lutra*;
- Badger *Meles meles*;
- Red squirrel *Sciurus vulgaris*;
- Daubenton's Bat *Myotis daubentonii*;
- Noctule *Nyctalus noctula*;
- Common pipistrelle Bat *Pipistrellus pipistrellus*; and
- Soprano pipistrelle Bat *Pipistrellus pygmaeus*.

4.2 No historical records (excluding Badgers) were found for within the site.

4.3 Information provided by Scottish Badgers shows a high number of badger evidence within the site and the 2 km buffer. Eighty-one incidences of badger road traffic accidents and 20 accounts of setts and activity were recorded in the site and 2 km buffer.

4.4 No records were held by the Borders Bat Group.

4.5 Statutory designated sites within 2 km of the site are listed in **Table 4.1**, below.

Table 4.1: Designated Sites

Name of Site	Designation	Qualifying Features	Proximity to Site
River Tweed	Site of Special Scientific Interest	• Atlantic salmon (Salmo salar) • Brook lamprey (Lempetra planeri) • River lamprey (Lampetra fluviatilis) • Otter (Lutra lutra) • Beetle assemblage • Fly assemblage	Borders site at north
River Tweed	Special Area of Conservation	• Atlantic salmon (Salmo salar) • Brook lamprey (Lempetra planeri) • River lamprey (Lampetra fluviatilis) • Sea lamprey (Petromyzon marinus) • Otter (Lutra lutra) • Rivers with floating vegetation often dominated by water-crowfoot	Borders sight at north
Avenel Hill and Gorge	Site of Special Scientific Interest	• Green hairstreak (Callophyrus rubi) • Upland oak woodland	Approx. 1.4 km north

4.6 Non-statutory designated sites within 2 km of the site are listed in **Table 4.2**, below.

Table 4.2: Non-designated Sites

Name of Site	Designation	Qualifying Features	Proximity to Site
Eildon and Leaderfoot	National Scenic Area	N/A	Borders site at eastern edge
Tweed, Ettrick and Yarrow Confluences	Special Landscape Area	N/A	Approx. 750 m south

Field Study

Habitats

4.7 The site consists of a small number of common and widespread habitats, detailed below along with their JNCC codes. When considering these descriptions, please also refer to site photographs in **Appendix 1** and the Phase 1 Habitat Map in **Appendix 2**.

Semi-improved neutral grassland (B2.1)

4.8 There are two large areas of this habitat in the centre and the east of the site. It is periodically, though not intensively, grazed by cattle and sheep and parts of it appeared to have been mown. Species found in this habitat were Yorkshire fog *Holcus lanatus*, sweet vernal grass *Anthoxanthum odoratum*, cock's foot *Dactylis glomerta*, thistle *Cirsium* sp. and common bent *Agrostis capillaris*.

Improved grassland (B4)

4.9 This habitat was found in two fields, one to the northeast of the site and one to the west. They are similar to the semi-improved neutral grassland in species composition however, the overall species diversity is lower, due to heavy usage of fertilisers and/or heavy grazing. The dominant species were perennial rye grass *Lolium perenne*, white clover *Trifolium repens* and creeping buttercup *Ranunculus repens*. Like the grassland above it is periodically, though not intensively, grazed by cattle and sheep and parts appeared to have been mown.

Parkland (A3.1)

4.10 There are scattered trees within the semi-improved neutral grassland and improved grassland at the east end of the site. These were mostly large mature individuals, though some semi-mature trees were recorded. The majority of species found were sycamore *Acer pseudoplatanus* , oak *Quercus sp.*, ash *Fraxinus sp.* and beech *Fagus sylvatica*.

Semi-natural broadleaved woodland (A1.1.1)

4.11 This is an abundant habitat within the survey boundary and runs through the centre of the site, with small areas bordering the river to the north. Dominant species in the majority of the site were beech, sycamore and oak. In the small section to the northwest which borders the river the dominant species was black poplar *Populus nigra*.

Mixed Woodland (A1.3.1)

4.12 There are three areas of mixed woodland within the site. The dominant broadleaf species in each were beech, cherry *Prunus avium* and sycamore. The coniferous portion of the woodlands consisted of Norway spruce *Picea abies* and larch *Larix decidua*.

Coniferous Plantation (A1.2.2)

4.13 There was one small area of conifer plantation in the centre of the site, made up of tall mature Norway spruce.

Hard Standing (HS)

4.14 This habitat comprises of roads which traverse the length of the site and parking areas outside of houses and the plant nursery.

Buildings (J3.6)

4.15 There are several buildings in the centre of the site, comprising residential properties, Lowood House and the plant nursery.

Ornamental Planting (OP) and Amenity Grassland (J1.2)

4.16 These habitats make up the small areas of garden and lawn associated with the buildings described above.

Protected Species

Otter and Water Vole

4.17 The River Tweed and the pond on site were searched as thoroughly as possible; however, no signs of otter or water vole were recorded.

4.18 The River Tweed provides suitable habitat for otter; as evident from the SAC designation it has been given. The river does not provide suitable water vole habitat due to the fast flowing and deep river and shallow, stony banks which are unsuitable for burrowing.

4.19 The pond within the site was not deemed optimal for water vole due to lack of suitable foraging vegetation for water voles. It was also deemed suboptimal for otter due to the lack of resting site opportunities as the area surrounding the pond was heavily impacted by cattle and is also used as a recreational area.

4.20 Water voles will not be considered further during this study due to lack of evidence and historical records.

Badger

4.21 Two main and four outlier setts were recorded within the site, with multiple dung pits and foraging signs recorded throughout. The habitats found in the site are optimal for badger foraging and sett creation, with plentiful grassland for foraging and woodland with soft soil in which to safely dig setts.

4.22 Due to the sensitive nature of the information, a confidential map of badger evidence is provided separately.

Red Squirrel

4.23 The broadleaf, mixed and coniferous woodlands found extensively on the site offer excellent foraging and habitation opportunities for red squirrel. Evidence of squirrel, including foraged cones and dreys were found on the site; however, as no sightings were recorded it is not possible to determine whether these are red or grey.

Great Crested Newt

4.24 No signs of great crested newt were recorded during the survey. The single pond on the site was scored for habitat suitability following published guidance[6] and was assessed as having poor suitability, which is the lowest rating a water body can receive. No other water bodies were identified within the site.

4.25 Great crested newts will not be considered further in this report due to lack of evidence and historical records.

Nesting birds

4.26 Active bird nests are not common at the end of September and as expected, none were recorded.

[6] ARG UK (2010). ARG UK Advice Note5: Great Crested Newt Habitat Suitability Index. Amphibian and Reptile Groups of the United Kingdom

4.27 Many small passerines (e.g. robins *Erithacus rubecula* and sparrows *Passer domesticus*) and common species such as pigeon *Columba livia* were encountered during the survey.

4.28 Six grey herons *Ardea cinerea* were seen roosting in the large Norway spruce which border the northern edge of the pond.

Non-Native Invasive Species

4.29 Himalayan Balsam *Impatiens glandulifera* was recorded at many areas in the site. The densest areas were along the northern border of the site, on the banks of the River Tweed.

Bat Roost Potential (BRP)

4.30 There were many large and mature trees identified on the site with features suitable for supporting bat roosts. Features included woodpecker holes, knot holes, and damaged and rotten limbs. Single large trees with BRP were recorded separately; where multiple trees were identified as having BRP, in the same area a 50 m² grid was applied and given a rating based on the guidelines in **Table 3.1**. A map of the BRP grid for woodland on the site can be found in **Appendix 2**.

4.31 The buildings on the site were also surveyed for BRP and given a corresponding score. The majority of buildings were deemed to have moderate potential, with one scored as high due to the surplus of entrance points seen. Lowood House was not accessible for surveys and as such has no score.

4.32 Surveyors also received a personal communication from a resident of the site indicating bats were roosting in their building, in the roof or walls of their apartment (No. 4). He reported that "hundreds of bats", possibly young staying close to the roost, were observed emerging and foraging this year. The access point of this roost had appeared to move from one side of the roof to another over the course of recent years.

4.33 The mixture of habitats found within the site (woodland, grassland and river) provide optimal foraging for a variety of bat species. The river and bordering trees supply a commuting corridor for bats to move to the east and west of the site into the surrounding farmland.

5 Discussion

Desk Study

5.1 Records of bats, otter, badger and red squirrel were found within the site and the 2 km buffer, suggesting that the site and vicinity provides suitable habitat for these protected species and acts in conjunction with the wider environment. Enhancement opportunities for these species will be considered in the following section.

5.2 The River Tweed is a statutorily designated site which borders more than half of the site and as such, enhancement opportunities and possible constraints will be considered in the following section.

Field Study

5.3 No evidence of otter was recorded in our survey. This could be due, at the pond, to a lack of suitable resting sites or holt options and also the area being used for recreation. The River Tweed is designated for otter and as such it was expected that signs of otter would be recorded on the river bank. No evidence was documented on the southern bank, which borders the site; this could be explained by the public footpath, popular with dog walkers, and lack of habitat suitable for holt use. The northern bank may appear more attractive to otters due to the improved security presented by lack of disturbance and habitat diversity, with the presence of large rocks which provide crevices.

5.4 A number of badger setts were identified on the site and prior to any planned development a badger protection plan should be created to explain the likely impact on badgers caused by the development and any mitigation measures which will be implemented to limit or avoid these impacts. Impacts to be considered should include both legal offences and general potential for clashes between human and badger use of the wider areas.

5.5 Both red and grey squirrel have been recorded historically in the area and further detailed studies would be required prior to development to determine if the dreys recorded belong to the protected red squirrels or not.

6 Enhancement opportunities and constraints

Trees and woodland

6.1 There is a variety of woodland found across the site, all of which adds value in the form of biodiversity and habitat for faunal species or for visual amenity and character. Generally speaking, retaining woodland and trees is preferable to removal in order to retain these services. The value of developed and varied woodland cannot be easily replaced by replanting individual trees as the value of the woodland includes the mature soil habitat and ground flora also associated.

6.2 Where trees are to be removed or cut back for safety or due to the health of the trees, alternatives to full removal should be considered. For example, should a tree need to be cut back to avoid diseased or damaged limbs from falling, retention of the tree itself should be the first consideration, as opposed to wholesale removal and replanting. Only cut back to where necessary and try to retain splits or cracks where safe to do so. Where a tree is severely diseased or dead, consideration should be given to cutting the tree back to make it safe and leave it standing to permit invertebrates, birds and mammals to continue using it. It may be possible to make new slices into branches to create crevices for wildlife. Where this is not possible and the tree offers potential bat roosting features, or similar, consideration should be given to strapping the relevant section of the tree to another healthier, but younger, tree nearby; this would allow the retention of those features whilst slightly immature trees have a chance to mature.

6.3 Where trees are removed and logs and branches are stacked nearby, ensure these are left in site to offer refugia to local invertebrates and mammals. If any stockpiling is to be removed, do so quickly (after forming the pile) and make sure it's done at an appropriate time of year to prevent disturbance to sheltering animals.

6.4 Comparatively young plantations, such as in the western part of the site, if retained, would benefit from careful thinning and integration of paths to allow more open canopy and encourage better ground flora growth.

6.5 Mature treelines around the margins of the site should be retained to provide screening. However, they can also be planted up further (e.g. hedging and scrub) to create wildlife corridors around the site to allow wildlife a safe path to avoid future development obstacles. Taller planting or a 'greenwall' type approach in the south would help screen noise from the railway line and reduce light pollution. These new green tree/hedge corridors should remain unlit or only have low-level lighting. Planting along footpaths should be denser to provide a buffer between human and wild fauna users.

6.6 The vegetated areas closer to the river are remarkably dry and not currently displaying evidence of a wet woodland (one of the proposed landscape options); therefore, it could continue to provide parkland tree compensation opportunities by just supplementing what is already there.

6.7 The woodland located in RZ 3 is dominated by very tall broadleaved species with some conifers mixed in. Care must be taken for any development within this woodland, as keyholing could open up vulnerability to wind throw, as already evidenced on site. Where tree removal is required for development, the impact assessment must consider this possibility.

6.8 Wherever new trees or scrub species are planted, they must be native species, preferably of local provenance, to avoid offences under the Wildland and Countryside Act and to offer more value to local wildlife.

Open spaces

6.9 As mentioned above, planting up the open spaces between mature trees at the margins of the site could offering screening and help create a safe, green corridor for wildlife. More flowering species would offer foraging for birds, bats and invertebrates, such as bees and butterflies.

6.10 The floodplain areas, at the western end of the site and at the northeast, could be utilised for playground or free play in a new parkland setting without removing its service as a flood storage. Planting trees and hedges in this area could provide shade, soil security, and some compensation for tree-loss elsewhere. Mixed with wildflower meadows, meandering mown footpaths (as opposed to gravel), and benches, the area could help make these areas attractive in order to avoid fly-tipping and anti-social behaviour. With the correct planting schedule, management of these areas could be minimal, with less mowing (to retain long swards) and no formal paths to maintain.

6.11 The River Tweed banks are dominated by non-native plants, such as the invasive Himalayan balsam and many garden escapees. This is a common problem on watercourse and requires landscape scale solutions. Consideration will be required to avoid offences during development and perhaps to help mitigate or control the problem in this area.

Dementia hub and pond

6.12 The existing pond at the proposed dementia hub location could benefit from sensitive planting of marginal plants to improve biodiversity and act as a buffer or barrier to people (potentially reducing risk of drowning). The mature wood stand north of the pond should be retained and protected, as it is used by roosting herons and badgers, though some work would be required to improve its amenity. A careful path through the pond woodland, with extra plants to create a buffer between the path and rest of the wood would offer some protection to the wildlife but allow walks by local residents and users of the Hub. Selected thinning and soil preparation could open up potential for ground flora.

6.13 With proposed development surrounding this pond and wood, careful landscape design will be required to avoid habitat severance and movement of, for example, badger through the site. The planting schedules for the proposed Hub, business park and dwellings will also need to consider species type and subsequent management to avoid pollution and nutrient loading into the pond, which can result in algal blooms as well as expensive and damaging maintenance.

Business Park (RZ4)

6.14 The proposed access road, below RZ 4, is currently at the site of a former field gate through a historic wall. The species currently present are typical of gate points in grazed fields (e.g. nettle, thistle, sorrel). However, any road through this area will need to avoid the mature trees scattered in this parkland. Any buffer applied to the individuals must be sufficient to not only protect the root zone, but also avoid future health and safety risks which could result in felling after planning consent is granted. This is very important to note in any planning conditions, as the potential root protection zone could be very large and could require thoughtful and creative construction approaches, beyond standard methods. The retention of these trees, and the addition of more will be key to avoid severance across the site and to retain its historic and rural character.

Protected species

6.15 As there are no detailed development plans for this site yet, it is not possible to assess impacts on any bat habitat or roosts. As mentioned above, they are clearly present on site and the mixed habitats present both in site and adjacent make it likely bats are thriving at Lowood. Targeted surveys will be required on trees and buildings to be affected by developments. Any development impacts on bat roosts should result in good quality like-for-like replacement, rather than

miscellaneous bat boxes in trees. Adjacent to the existing road into the nursery is a large historic stone wall. Within the woodland, on the east face of the wall, are several defunct outbuildings, at least one being thatched. These buildings could be retained and restored to create bespoke bat houses to act as compensation for any roost loss nearby. This would help to retain historic features of the park whilst offering a good alternative for bats.

6.16 At the moment, human presence, along with associated lighting, disturbance, and hard standing, is minimal. Proposed development would result in the loss of edge and woodland habitats and will likely include significantly more lighting. Connectivity across the site, especially between woodlands will help allow bats to continue using the site effectively. Hedgerows, more trees, and flowering scrub species could be used for creating these corridors. Cutting-edge lighting design should be incorporated into any landscape plan as a forethought. Lighting should consider LEDs, bollard lights, timers, and user buttons in order to minimise impacts. Published good practice guidance is available, for example from the Bat Conservation Trust: *Artificial lighting and wildlife* and *Bats and artificial lighting in the UK*.

6.17 Badgers are present on site and using it for shelter and foraging (see the confidential figure for details). Connectivity through the landscape is just as important for badgers as for bats. Although the legislation doesn't require as rigorous consideration for badgers, avoiding human conflict once the development is operational should be a consideration for any developer. Creating the green corridors for bats and as described further above, would lend itself to badger use with little extra effort. Where corridors are required, thorny species, such as hawthorn, could help keep the wildlife paths separate from humans, reducing conflict and harassment. Large areas of foraging especially in proximity to main setts, will help to reduce the risk of badgers using future gardens. Again, forethought during masterplanning can help address future conflict and reduce impacts.

6.18 It is not certain if red squirrels are present on site. Detailed surveys, e.g. hair tube deployment, could answer this key question. If red squirrels are present, then retention of drey trees and woodland and improved connectivity could help this species cope with future development. However, red squirrels can be shy and careful animals and depending on the level and type of development proposed at Lowood, this species may still be displaced. The planning authority should consider off-site locations nearby for habitat enhancement and protection to help offset impacts at Lowood.

6.19 Otters have become fairly ubiquitous across Scotland after concerted efforts to improve watercourses and protect habitats. The adjacent River Tweed is designated as a Special Area of Conservation, in part because of its otter population. However, there were no signs of otter on the Lowood bank. It is possible current levels of disturbance discourage use by otters or the lack of sufficient sheltering opportunities. There are certainly areas which could be used at couches, but no potential holts or hovers were recorded. The northern (left) bank appeared less disturbed, more significantly buffered, and more diverse in habitat type. It is possible otter prefer the left bank to the right. Any development will need updated baseline surveys and pre-works surveys, as a minimum, on both banks to ensure otter shelters are not disturbed and direct impacts can be avoided.

Appendix 1: Photographs

	
Mature Broadleaved Woodland	Young Broadleaved Woodland
	
Tall Ruderal	Improved Grassland and Large, Mature Oaks

	
Improved Grassland	Improved Grassland with Scattered Broadleaf Trees (Parkland)
	
Pond	Semi-improved Neutral Grassland

	
Mature Beech	Himalyan Balsam on River Edge
	
Mature Beech Tree with Woodpecker Holes	Mature Sycamore Tree with Limb Damage

	
Building with High BRP. Gaps under roof	Building with Moderate BRP

Appendix 2: Survey Results Maps

Lowood Preliminary Ecological Appraisal

Figure 1: Extended Phase 1 Habitat

- Survey area
- Squirrel Drey
- Squirrel Foraging Remains
- A1.1.1 Broadleaved woodland (semi-natural)
- A1.1.2 Broadleaved woodland (plantation)
- A1.2.2 Coniferous woodland (plantation)
- A1.3.1 Mixed woodland (semi-natural)
- AL Allotment
- B2.2 Neutral grassland (semi-improved)
- B4 Improved grassland
- C3.1 Other tall herb and fern (ruderal)
- G1 Standing water
- G2 Running water
- HS Hard standing
- J1.2 Amenity grassland
- J3.6 Buildings
- OP Ornamental planting

Map Scale @A3: 1:4,500

LUC

Scottish Borders Council

0 250 500 m

CB:CB EB:Nicholson_M LUC FIG1_10833_r0_Phase1 22/10/2019

Source: LUC

Lowood Preliminary Ecological Appraisal

Figure 2: Bat Roost Potential

Survey area

Bat Roost Potential Structures

- High
- Moderate
- Low
- Negligible

Bat Roost Potential Trees

- High
- Moderate
- Low

- BRP1- High
- BRP2- Moderate
- BRP3- Low
- BRP4- Negligible

Map Scale @A3: 1:4,500

LUC

Scottish Borders Council

Source: LUC

CB:CB EB:Nicholson_M LUC FIG2_10833_r0_BRP_Grd 22/10/2019

Figure 3: Badgers

Survey area

Map Scale @A3: 1:4,500

LUC

Scottish Borders Council

CB:CB EB:Nicholson_M LUC FIG3_10833_r0_Badgers_CONFIDENTIAL 22/10/2019

Source: LUC

A.3 Consultation Responses

Response ID ANON-1MFD-RY3N-M

Submitted to **Tweedbank – Vision for Growth and Sustainability, A Community for the Future. Draft Supplementary Planning Guidance**
Submitted on **2020-05-05 16:27:29**

About you

Are you responding as an: individual or organisation/group/agent?

Organisation / group / agent

Organisation / group / agent

Organisation / Group / Agent

Organisation / group name / agent:
Scottish Natural Heritage

Name:
Vivienne Gray

Contact telephone number:

Email address:
viv.gray@nature.scot

Comments

Tweedbank – Vision for Growth and Sustainability, A Community for the Future. Draft Supplementary Planning Guidance

Please provide comments here:

Comments:
We generally agree with the content of the draft Supplementary Guidance and particularly welcome the principles and requirements which focus on biodiversity and place-making. Our detailed comments focus on protected species and the River Tweed Special Area of Conservation (SAC).

Protected species

The detail of the Phase 1 survey provided in the Appendices (Preliminary Ecological Appraisal Report, paragraph 3.9) states that species were surveyed for within the site boundary. In general, we are content with the findings presented in the report but suggest that it may be useful to consider the benefit of including the opposite bank of the River Tweed in the narrative. The opposite bank of the River Tweed is at varying distances from the site boundary but this is always within 100m. As explained in our Species Planning Advice note on otters (https://www.nature.scot/sites/default/files/2019-10/Species%20Planning%20Advice%20-%20otter.pdf), all suitable otter habitat within 200m of proposed development should be surveyed.

The extent of the buffer area required for surveying is based on the sensitivity of otters to disturbance during breeding and when using their places of shelter. Activities within this buffer, if otters are present, are licensable.

We recommend that the Supplementary Guidance should demonstrate that the north bank of the River Tweed has either been included in survey or that it will be prior to planning applications being made.

Habitats Regulations Appraisal

The draft Supplementary Guidance identifies the need for project level Habitats Regulations Appraisal (HRA). We welcome this and generally agree with the handling of this subject area.

However, we consider that there are other measures proposed in the draft that are intended to act as mitigation for flooding and other issues which may also act as designed-in / intrinsic mitigation that would avoid likely significant effect (LSE). In particular, we consider that the effect of the constraints arising from the floodplain and river terraces that restrict development alongside the River Tweed would also help mitigate any impact of development on the Special Conservation Area (SAC). This is further demonstrated by the developable areas shown in Part 2 of the draft.

One of the effects of the People Over Wind European Court of Justice (ECJ) decision was that there must be a clear distinction in a HRA between those measures within a plan or project intended to avoid or reduce harmful effects on a European site, and elements that may incidentally provide some degree of mitigation, but which are intrinsic or essential parts of the plan or project itself and would have been included regardless of the presence of a European site. Detail of this is available on our website here:
https://www.nature.scot/sites/default/files/2019-08/Guidance%20Note%20-%20The%20handling%20of%20mitigation%20in%20Habitats%20Regulations%20Appraisal%20

In this case, we consider that the measures that are planned to be taken to avoid floodplain and river terraces are an essential part of the project itself. Furthermore, these measures have not been introduced in order to reach a conclusion of no LSE, meaning that we believe that they meet the requirements of the

ECJ decision in terms of the application of mitigation.

To make the handling of this issue clear to readers and users of the Supplementary Guidance we suggest that, when carried out, the HRA Screening of this proposal should consider the approach suggested above, and that the finalised Supplementary Guidance should make a clearer analysis of the effect of the existing mitigation / standoff from the River Tweed and explain the effect of that on the need for further appraisal within the HRA.

Or upload comments:

Upload:
No file was uploaded

SEPA
Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Our ref: PCS/170255
Your ref:

If telephoning ask for:
Silvia Cagnoni-Watt

12 May 2020

Karen Ruthven
Scottish Borders Council
Planning & Economic Development
Council Headquarters
Newtown St Boswells
Melrose
TD6 0SA

By email only to: dcconsultees@scotborders.gov.uk

Dear Karen

Town and Country Planning (Scotland) Acts
TWEEDBANK. VISION FOR GROWTH AND SUSTAINABILITY
Supplementary Planning Guidance
Scottish Borders Council

Thank you for your consultation email which SEPA received on 21 February 2020.

We understand that this Supplementary Planning Guidance (SPG) is linked to the Adopted Local Development Plan (LDP) 2016.

We welcome the opportunity to comment on the proposal for the whole area at this stage and support the approach taken with relation to placemaking. We consider important to look at a site of this scale with an holistic approach, taking into consideration not only the requirements of the Adopted Local Development Plan, but also new and forthcoming opportunities coming from recent and emerging legislation and guidance.

We have provided general comments referring to our previous responses as part of the LDP consultations and structured the other sections of this response on the basis of the comments provided by our specialists. We would expect the Council to review and incorporate them in the SPG as appropriate, however we would be able to discuss this in more detail, and with reference to more specific sections of the SPG, before it is finalised, if necessary.

1. General

1.1 We commented on this site on 30 January 2017 (our ref: PCS/150397) as part of the consultation for the Scottish Borders Council - Housing Supplementary Guidance. We said:

MTWEE002 - *We **support** the requirement for a FRA to assess the flood risk from the River Tweed and the requirement for the developer to demonstrate how the risk from surface water would be mitigated. Consideration will need to be given to bridge and culvert structures within and adjacent to the site.*
*We however **require a modification** to the developer requirement to investigate the possibility of deculverting*

1.2 We also commented as part of the LDP2 consultation:

MTWEE003 – Flood risk -*We require an FRA which assesses the risk from the River Tweed, Allan Water and small watercourse which flows along the boundary of the northern allocation. Consideration will need to be given to bridge and culvert structures within and adjacent to the site which may exacerbate flood risk. Review of the surface water 1 in 200 year flood map indicates that there may be flooding issues within this site. This should be investigated further and it is recommended that contact is made with the flood prevention officer. Site will likely be constrained due to flood risk.*

Water environment - The site borders the River Tweed along a large part of its length so care must be taken to protect this sensitive water environment. There also appears to be a pond within the estate which should be protected. Foul water must be connected to the SW foul network, however this site is not currently within the sewered catchment.

Co-location: potential for odour from Easter Langlee landfill (PPC) and WML exempt composting site at Pavillion Farm.

2. Flood risk

2.1 We have been asked to provide comments on the Public Consultation: Draft Supplementary Planning Guidance (SPG) on Tweedbank – Vision for Growth & Sustainability, A Community for the future. The proposal is for a residential/mixed use development at Lowood, Tweedbank comprising approximately 9 hectares of residential development and 2 hectares of employment land.

Technical Report

2.2 We have reviewed the documents provided with this consultation with respect to flood risk and it is noted that the application site (or part thereof) is located within the medium likelihood (0.5% annual probability or 1 in 200 year) flood extent of the SEPA Flood Map, and may therefore be at medium to high risk of fluvial flooding from the River Tweed. SEPA Flood Maps also indicate that the site is at risk of surface water flooding.

2.3 We have previously been consulted on this site (MTWEE002) in the Scottish Borders Council 2016 Local Development Plan consultation. However, the site was not included within the adopted Local Development Plan (LDP). Further comments were provide for the inclusion of site MTWEE003 in LPD2 in 2017.

2.4 We note that the proposed development is residential and mixed use. It should be noted that residential development is considered within the Highly Vulnerable Use category within SEPA's Land Use Vulnerability Classification.

2.5 As is noted within the Draft SPG, SEPA will require that a Flood Risk Assessment (FRA) is undertaken to assess the flood risk to the site from the River Tweed. Consideration will need to be given to bridge structures located upstream and downstream of the site. The presence of Lowood Pond within the application site should also be considered within the FRA. The appropriate climate change uplifts for the River Tweed catchment should be applied.

2.6 We are aware that Scottish Borders Council have recently undertaken a Surface Water Management Plan for Galashiels, which includes Tweedbank and the application site. We recommend that contact is made with the Council's Flood Risk Management staff to determine if there is available output from that study which may provide further information regarding surface water flood risk to the application site.

Caveats & Additional Information

2.7 The SEPA Flood Maps have been produced following a consistent, nationally-applied methodology for catchment areas equal to or greater than 3km^2 using a Digital Terrain Model (DTM) to define river corridors and low-lying coastal land. The maps are indicative and designed to be used as a strategic tool to assess, flood risk at the community level and to support planning policy and flood risk management in Scotland.

2.8 We refer the applicant to the document entitled: "*Technical Flood Risk Guidance for Stakeholders*". This document provides generic requirements for undertaking Flood Risk Assessments. Please note that this document should be read in conjunction with Policy 41 (Part 2).

2.9 Our Flood Risk Assessment Checklist should be completed and attached within the front cover of any flood risk assessments issued in support of a development proposal which may be at risk of flooding. The document will take only a few minutes to complete and will assist our review process.

2.10 Please note that we are reliant on the accuracy and completeness of any information supplied by the applicant in undertaking our review, and can take no responsibility for incorrect data or interpretation made by the authors.

2.11 The flood risk advice contained in this letter is supplied to you by SEPA in terms of Section 72 (1) of the Flood Risk Management (Scotland) Act 2009 on the basis of information held by SEPA as at the date hereof. It is intended as advice solely to Scottish Borders Council as Planning Authority in terms of the said Section 72 (1).

3. Water environment

3.1 Planning authorities have been designated responsible authorities under the Water Environment and Water Services (Designation of Responsible Authorities and Functions) Order 2006. As such authorities are required to carry out their statutory functions in a manner that secures compliance with the objectives of the Water Framework Directive (i) preventing deterioration and (ii) promoting improvements in the water environment in order that all water bodies achieve "good" ecological status by 2015 and there is no further deterioration in status. This will require water quality, quantity and morphology (physical form) to be considered.

3.2 The water environment also includes the pond, which needs protection, as highlighted already in Section 1 above.

Surface water

3.1 We note the intention to require a Drainage Impact Assessment.

3.2 We expect surface water from all developments to be treated by SUDS in line with Scottish Planning Policy (Paragraph 268) and, in developments of this scale, the requirements of the Water Environment Controlled Activities Regulations (CAR). SUDS help to protect water quality and reduce potential for flood risk. Guidance on the design and procedures for an effective drainage system can be found in Scotland's Water Assessment and Drainage Assessment Guide.

3.3 The proposed SUDS should accord with the SUDS Manual (C753) and the importance of preventing runoff from the site for the majority of small rainfall events (interception) is promoted. The applicant should use the Simple Index Approach (SIA) Tool to ensure the types of SUDS proposed are adequate. We would also expect that the SUDS complies with General Binding Rule (GBR) 10, 11 and 21 (see the CAR Practical Guide). There should be appropriate capacity for the SUDs and take in to account for climate change

3.4 Construction phase SUDS should be used on site to help minimise the risk of pollution to the water environment. Further detail with regards construction phase SUDS is contained in Chapter 31 of SUDS Manual (C753).

3.5 Comments should be requested from Scottish Water where the SUDS proposals would be adopted by them and, where appropriate, the views of your authority's roads department and flood prevention unit should be sought on the SUDS strategy in terms of water quantity and flooding issues.

3.6 GBR 9 should be taken in to consideration at points as machinery could well be in close proximity to River Tweed SSSI and SAC. This will include silt mitigations so that not construction run off can enter the water environment without appropriate treatment. Consideration should also be given to the potential for flood/ high rainwater to inundate the site during works and result in silt/ materials/ being carried into waterbodies.

3.7 The development would require a Construction Site Licence (CSL). See further details in the regulatory requirements section below.

Waste water

3.8 All proposed foul water should be going to existing foul sewer, as it is close proximity to Galashiels WTW. We understand that there may be capacity issues and therefore consultation with Scottish Water and the SEPA local regulatory team are essential to determine the approach to this proposal.

3.9 It should be noted that should a connection to the public sewer not be achievable then we would be required to be re-consulted as any private waste water discharge would require authorisation under Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR). Given the size of the development SEPA would have concerns over such an authorisation, which could in turn potentially constrain development at the site.

4. Engineering activities in the water environment

4.1 In order to meet the objectives of the Water Framework Directive of preventing any deterioration and improving the water environment, developments should be designed to avoid engineering activities in the water environment wherever possible. The water environment includes burns, rivers, lochs, wetlands, groundwater and reservoirs. We require it to be demonstrated that every effort has been made to leave the water environment in its natural state. Engineering activities such as culverts, bridges, watercourse diversions, bank modifications or dams should be avoided unless there is no practicable alternative. Paragraph 255 of SPP deters unnecessary culverting. Where a watercourse crossing cannot be avoided, bridging solutions or bottomless or arched culverts which do not affect the bed and banks of the watercourse should be used. Further guidance on the design and implementation of crossings can be found in our Construction of River Crossings Good Practice Guide. Other best practice guidance is also available within the water engineering section of our website.

4.2 If the engineering works proposed are likely to result in increased flood risk to people or property then a flood risk assessment should be submitted in support of the planning application and we should be consulted as detailed below.

4.3 A site survey of existing water features and a map of the location of all proposed engineering activities in the water environment should be included in the ES or planning submission. A systematic table detailing the justification for the activity and how any adverse impact will be mitigated should also be included. The table should be accompanied by a photograph of each affected water body along with its dimensions. Justification for the location of any proposed activity is a key issue for us to assess at the planning stage.

4.4 Where developments cover a large area, there will usually be opportunities to incorporate improvements in the water environment required by the Water Framework Directive within and/or immediately adjacent to the site either as part of mitigation measures for proposed works or as compensation for environmental impact. We encourage applicants to seek such opportunities to avoid or offset environmental impacts. Improvements which might be considered could include the removal of redundant weirs, the creation of buffer strips and provision of fencing along watercourses. Fencing off watercourses and creating buffer strips both helps reduce the risk of diffuse water pollution and affords protection to the riparian habitat.

5. River Basin Management Plan (RBMP)

5.1 We would welcome reference to the River Basin Management Plan for the river Tweed and ensuring that developments consider opportunities as appropriate. Having consulted our specialists, please see their comments below which could be incorporated in the SPG.

- There are no RBMP pressures on the river at this site –this long stretch is currently at good condition and should be protected from deterioration.

- Biosecurity measures should be employed on the development site.

- No morphology pressures are logged in our system– but this has not been surveyed/groundtruthed – so there may be opportunities to improve but these would need proper assessment.

- Riparian planting should always be sensitive: an appropriate scheme to fit with what is currently there; planning of tree stands ages etc; using native species mix and implemented with regard to banks etc. Biodegradable tree shields are also now available.

5.2 See also https://www.sepa.org.uk/environment/water/river-basin-management-planning/

6. Ecology

6.1 We note the recommendation to use native planting in Section 9 – Design Guidance.

6.2 Management of Invasive non-native species (INNS). The full plan must cover mitigation of spread when working in and around Himalayan Balsam (and any other INNS found- Japanese Knotweed and Giant Hogweed are present nearby.) Whilst Himalayan Balsam has already been identified in the Phase 1 survey, it is important that a survey of the area to check for other INNS is completed immediately prior to any development commencing to inform biosecurity plan as these species can spread quickly. All developers should work with the Tweed Forum regarding these issues in terms of mitigation and biosecurity for the duration of any development and post development. All developers should be aware of the waste management implications when dealing with Japanese Knotweed.

6.3 Works to be conducted around the pond and near the river must comply with best practice for avoiding water contamination. There must be plans to control run off and manage site drainage. Consideration must also be given to the potential for flood/ high rainwater to inundate the site during works and result in silt/ materials/ being carried into waterbodies.

6.4 The extended Phase 1 survey does not suggest presence of groundwater dependent terrestrial ecosystems (GWDTEs) or peat based habitats so this is not a concern for SEPA.

6.5 Planting is mentioned a few times. Should this form part of the final plan, in particular the suggestion of planting the pond margin, careful consideration should be given to ensure native and non-invasive species are chosen which naturally occur in this geographic area.

7. Air quality

7.1 The planning system has an important role to play in improving air quality and reducing exposure to air pollution and this is recognised in current Scottish Government policy, as set out in the Scotland's National Planning Framework 3 (NPF3), Scottish Planning Policy (SPP) and Cleaner Air for Scotland, Strategy - The Road to a Healthier Future (CAFS, 2015). All of these documents are currently under review, with the role of planning in promoting good air quality expected to take greater prominence in the forthcoming NPF4 and CAFS documents.

7.2 Scottish Borders Council does not currently have any AQMAs, however ensuring the delivery of good air quality objectives should be a priority for all developments. The Scottish Borders LDP also outlines a clear policy commitment under Policy EP16: Air Quality. This outlines that development proposals, which could adversely affect the quality of air in a locality to a level that could potentially harm human health and wellbeing or the integrity of the natural environment, must be accompanied by provisions that the Council is satisfied will minimise such impacts to an acceptable degree. This policy will also be applicable to the development proposals which are subject of this draft SPG.

7.3 The “Tweedbank – Vision for Growth and Sustainability, A Community for the Future” – Draft Supplementary Planning Guidance (SPG), outlines the development and policy framework for the development of the Lowood Estate located north of the town of Tweedbank. The 36ha site will provide mixed use development, including 9ha of residential and 1.2-2ha of employment. The Lowood Estate is approximately a third of the size of the existing Tweedbank settlement and therefore represents a significant neighbourhood expansion.

7.4 The proposed development site is located in close proximity to the Tweedbank train station, travel hub and park and ride which offers accessible opportunities for public transport infrastructure for residents of the forthcoming development. The draft SPG also identifies a number of national and local walking and cycling networks in close proximity which also offer opportunities for active travel. The site is therefore well connected to encourage internal and outward mobility without the use of private vehicles.

7.5 The SPG describes a vision for the site which will include ensuring that the site is visually and physically connect to Tweedbank and encourage active travel, green infrastructure and community integration and provides further detailed analysis of site zoning and design details which contribute to the overarching design guidance proposals outlined in the document. The key principle of the design guidance relevant to air quality include that parking should be based on Scottish Borders Council minimum requirements and incorporated within the development sensitively. We note that as part of the pre-development checklist transportation, public transport and connectivity should be discussed with the Council in order to identify the actions for the future developer.

7.6 It is encouraging to note that the draft SPG document already describes a number of principles which already promotes good air quality within new development areas including the integration of the inputs of the planning, transport, housing, education and environment functions prior to application submission via the pre-development checklist to ensure that environmental considerations, including those related to air quality, are considered at the earliest stages of the planning application process. Additionally the site is located nearby existing bus and rail services, which are accessible both by foot and cycling, with the additional benefit of design considerations being identified including being safe, well lit and integrated within the development layout.

7.7 We would **recommend** that as part of pre-development checklist, that the SPG also ensures that good air quality outcomes for the proposed site are integrated into the document by identifying the principles of good practice, as outlined in the Delivering Cleaner Air for Scotland – Development Planning and Development Management guidance (Guidance from Environmental Protection Scotland and the Royal Town Planning Institute). The pre-development checklist should require that these are followed and incorporated in to the considerations for design and operation of the site as far as practically possible. This could include the identification of the location of buildings where particularly sensitive members of the population are likely to be present such as school buildings or care home, which should be sited 100m or more away from busy roads. Also, that new housing in central areas of the development should be designed to ensure residents are not exposed to poorer air quality as a result of being located nearby busier roads and congested junctions.

7.8 We would advise that the further following good practice measures should be included in the draft SPG document to ensure that the development framework for the site is as up to date as possible in advance of updated strategies with regards to protecting and improving air quality in Scotland, both in planning and environmental policy areas.

These good practice measures include,

Design measures:

- Wherever possible, new developments should not create a new “street canyon” or building layouts that inhibit effective dispersion of pollutants;
- Delivering sustainable development should be the key theme for the assessment of any application for development on site;
- New development should be designed to minimise public exposure to pollution sources, e.g. by locating habitable rooms away from busy roads, or directing combustion exhaust through well-sited vents or chimney stacks.
- Giving careful consideration to the location of developments where particularly sensitive members of the population are likely to be present;

Operational measures:

- The provision of at least 1 Electric Vehicle (EV) “rapid charge” point per 10 residential dwellings and/or 1000m2 of commercial floor space. Where on-site parking is provided for residential dwellings outside individual driveways, these should include EV charging points to the standard of one point per 10 residential units or a higher standard if set out in the LDP.
- Where development proposals will generate significant additional traffic, provision of a travel plan (with provision to measure its implementation and effect) which sets out measures to encourage sustainable means of transport (public, cycling and walking) via subsidised or free-ticketing, improved links to bus stops, improved infrastructure and layouts to improve accessibility and safety must be required if other mitigation measures are unable to be met. Where bus services are limited or non-existent the Travel Plan should consider the need to fund and subsidise bus services for at least the first 5 years of the development. Bus operators, the Councils Transport function and the Regional Transport Partnership should be asked to provide costs and operational advice where bus services are limited or non-existent.

Further measures to offset potential site emissions also include,

- Support and promotion of car clubs;
- Contributions to low emission vehicle refuelling infrastructure;
- Provision of incentives for the uptake of low emission vehicles;
- Financial support to low emission public transport options; and
- Improvements to cycling and walking infrastructure.

7.9 We would further advise that we note and support other proposed approaches throughout the draft SPG which promote high quality building standards, reduce energy use, both of which can help to reduce local emissions of air pollutants. They will also align with other policies aimed at increasing sustainability, notably for reducing greenhouse gas emissions.

8. Energy

8.1 We welcome the identification in section 5, page 24, of the opportunity for low carbon energy/low carbon development within the site and the direction in section 9, page 37, that all new development should employ renewable energy solutions. We note the consideration that has been made as part of the review of Energy Options for Tweedbank Expansion (page 44).

8.2 In addition to this, we recommend that any layout or design of the development is informed and provides space for low carbon energy (including heat) within the site, as an integrated part of the design.

9. Sustainable waste management

9.1 Scottish Planning Policy Paragraph 190 states that "All new development including residential, commercial and industrial properties should include provision for waste separation and collection to meet the requirements of the Waste (Scotland) Regulations." In accordance with this policy, the relevant Local Development Plan and the Scottish Government Planning and Waste Management Advice, space should be designated within the planning application site layout to allow for the separation and collection of waste, consistent with the type of development proposed. This includes provision to separate and store different types of waste, kerbside collection and centralised facilities for the public to deposit waste for recycling or recovery ("bring systems"). Please consult the council's waste management team to determine what space requirements are required within the application site layout.

9.2 Scottish Planning Policy (Paragraph 192) states that planning authorities should consider requiring the preparation of sites management plans for construction sites. In the interests of seeking best practice and meeting the requirements of Scottish Planning Policy, we recommend that a site waste management plan (SWMP) is submitted, showing which waste materials are going to be generated and how they are going to treated and disposed.

9.3 All wastes should be handled in accordance with the "waste management duty of care" – residual contamination should be dealt with through the local authority planning and contaminated land departments.

10. Contaminated land

10.1 Advice on land contamination issues should be sought from the local authority contaminated land specialists because the local authority is the lead authority on these matters under Part IIA of the Environmental Protection Act 1990 except for matters relating to radioactively contaminated land or special sites.

11. Co-location

11.1 We mentioned in Section 1 the possible co-location issues related to the SEPA regulated sites.

12. Regulatory requirements

12.1 Authorisation is required under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) to carry out engineering works in or in the vicinity of inland surface waters (other than groundwater) or wetlands. Inland water means all standing or flowing water on the surface of the land (e.g. rivers, lochs, canals, reservoirs).

12.2 Management of surplus peat or soils may require an exemption under The Waste Management Licensing (Scotland) Regulations 2011. Proposed crushing or screening will require a permit under The Pollution Prevention and Control (Scotland) Regulations 2012. Consider if other environmental licences may be required for any installations or processes.

12.3 A Controlled Activities Regulations (CAR) construction site licence will be required for management of surface water run-off from a construction site, including access tracks, which:

- is more than 4 hectares,
- is in excess of 5km, or
- includes an area of more than 1 hectare or length of more than 500m on ground with a slope in excess of 25˚

See SEPA's Sector Specific Guidance: Construction Sites (WAT-SG-75) for details. Site design may be affected by pollution prevention requirements and hence we strongly encourage the applicant to engage in pre-CAR application discussions with a member of the regulatory services team in your local SEPA office.

12.4 Below these thresholds you will need to comply with CAR General Binding Rule 10 which requires, amongst other things, that all reasonable steps must be taken to ensure that the discharge does not result in pollution of the water environment. The detail of how this is achieved may be required through a planning condition.

12.5 Details of regulatory requirements and good practice advice for the applicant can be found on the Regulation section of our website or by contacting waterpermitting@sepa.org.uk or wastepermitting@sepa.org.uk.

12.6 If you have any queries relating to this letter, please contact me by email at planning.se@sepa.org.uk.

Yours sincerely

Silvia Cagnoni-Watt
Senior Planning Officer
Planning Service

ECopy to:

Karen Ruthven KRuthven@scotborders.gov.uk
Charles Johnston cjohnston@scotorders.gov.uk

Disclaimer

This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at this time. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning or similar application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. For planning applications, if you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found on our website planning pages.

From: Viv Gray <Viv.Gray@nature.scot>
Sent: 05 May 2020 16:46
To: Ruthven, Karen
Subject: Tweedbank supplementary guidance - HRA advice

Hi Karen,

I hope you're well and coping with the current lockdown.

I thought I should email you as I've just submitted our response to the Tweedbank Supplementary Guidance consultation. Our advice on HRA is hopefully clear but it takes a somewhat different approach to that you might have experienced before and I think it would be useful for me to say a bit more about that. We have based our advice on recent case law (the People Over Wind decision in the ECJ) in combination with the proposed standoff from the River Tweed that is already set out in the draft Supplementary Guidance. There are two things to be aware of:

- The case law has changed the application of mitigation in HRA and one thing it does is clarify that provided that mitigation is already an intrinsic part of a proposal, it can be applied as a means of avoiding Likely Significant Effect (LSE).
- The draft Supplementary Guidance includes standoff areas from floodplain and river terraces, effectively introducing areas that are not developable.

The latter means that we consider that intrinsic mitigation is in place which, due to its nature, then means that LSE can be avoided.

The clarification I wanted to make which I think is perhaps difficult to include in the response itself without things becoming confusing is that we are happy that this can be done in this case but you would need to take care with any future plan or strategy that you weren't seeking to introduce 'intrinsic' mitigation for the purpose of avoiding LSE as that would expressly be outwith the acceptable applications set out in the People Over Wind decision. Similarly, we would encourage you to treat any applications with caution if they appear to be including mitigation for the express purpose of avoiding having to undertake further HRA. It's hopefully fairly straightforward to avoid either of these situations by considering whether mitigation has been identified for a reason clearly unrelated to HRA and which is nevertheless required and justifiable. In these situations we can then advise on whether it would also avoid LSE or not.

I hope that this and our advice on this matter in our response is clear but please don't hesitate to contact me to discuss further if required. I'm available either via email or on my usual direct dial number below.

Regards,
Viv

Vivienne Gray | Policy and Advice Officer – Planning Advisor
Scottish Natural Heritage | Silvan House | 3rd Floor East | 231 Corstorphine Road | Edinburgh | EH12 7AT | viv.gray@nature.scot | t: 0131 316 2644 | CISCO 7012644
Dualchas Nàdair na h-Alba | Taigh Silvan | 3mh Làr an Ear | 231 Rathad Chros Thoirphin | Dùn Èideann | EH12 7AT
nature.scot – Connecting People and Nature in Scotland – @nature_scot