ECOLOGY SUMMARY NOTE, JUNE 2023
SANDY LANE, YSTRADOWEN

12 June 2023

Introduction

Soltys Brewster Ecology (SBE) were commissioned by Lewis Homes to undertake an ecological walkover survey of an additional land parcel located off Sandy Lane, Ystradowen. The site, approx. 1.5ha in size, is proposed for the development of 46no. residential units. The drainage proposals for the development include an off-site surface water route located to the north of the site (as shown in Appendix I). Additional survey work is required to establish the baseline ecological conditions along the off-site drainage route and identify any ecological constraints or opportunities associated with the proposals.

Background Information

The site is located to the north of Sandy Lane in Ystradowen, Vale of Glamorgan (central grid reference: ST015778). An initial Preliminary Ecological Appraisal (PEA) was undertaken at the site by SBE in March 2022. The survey identified that the site comprises of poor semi-improved grassland, hedgerow boundaries and scattered trees. At the time of the survey, the drainage proposals were unknown and the survey work did not include the additional land parcel to the north of the site.

Following the PEA, additional Stage 2 ecology surveys were undertaken at the site and within the wider area by SBE between April – November 2022. This included bat activity surveys as well as survey work to establish the likely presence/absence of Great Created Newt *Triturus cristatus* and Hazel Dormouse *Muscardinus avellanarius* at the site. The survey work established the use of the site by at least 6no. different bats species including Common and Soprano Pipistrelle *Pipistrellus pipistrellus/pygmaeus*, Noctule *Nyctalus noctula*, Serotine *Eptesicus serotinus*, Myotis sp. and Brown Long-Eared bat *Plecotus auritus*. The surveys did not find any evidence to indicate the presence of Hazel Dormouse within the habitats at the site. In addition, eDNA survey of surrounding ponds (within 150m) returned a negative sample for Great Crested Newt.

The current report presents the findings of an ecological walkover survey undertaken along the proposed drainage route and describes any ecological constraints or opportunities associated with the proposals. The findings of the current survey work should be read in conjunction with the previous PEA and Stage 2 ecological reports.

Walkover Survey

The fieldwork was undertaken on 2nd June 2023 by a suitably experienced ecologist[1] and followed standard Phase 1 Habitat Survey protocol as per JNCC (2010) guidelines[2]. All areas located along the proposed drainage route were surveyed (where access allowed). Site photographs and Target Notes are included within Appendix II.

During the field survey any trees located within close proximity to the drainage route were assessed for their potential to support roosting bats and were categorised in relation to the bat roosting features (BCT, 2016). The categories are as follows:

- **Known or confirmed roost**
- **High** - A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
- **Moderate** – A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
- **Low** – A tree with one or more potential roost sites that could be used by individual bats opportunistically. Or: A tree of sufficient size & age to contain PRFs (Potential Roost Features) but with none seen from the ground or features seen with only very limited roosting potential.
- **Negligible** – Negligible habitat features on site likely to be used by roosting bat

The survey identified that the field parcel located to the north/north-east of the site boundary (which the drainage route crosses) currently comprises of poor semi-improved grassland, dense scrub and tall ruderal vegetation. The majority of the field parcel is characterised by poor semi-improved grassland which has been subject to irregular grazing by horses. Species present include Yorkshire Fog *Holcus lanatus*, Cock's Foot *Dactylis glomerata*, Creeping Bent *Agrostis stolonifera*, Rough Meadow Grass *Poa trivialis*, False Oat Grass *Arrhenatherum elatius*, Sweet Vernal Grass *Anthoxanthum odoratum*, Meadow Buttercup *Ranunculus acris*, Common Sorrel *Rumex acetosa*, Broad-Leaved Dock *Rumex obtusifolius* and Nettle *Urtica dioica*. There are some damper areas of grassland located along the drainage route (see Target Note 2) which support occasional Marsh Thistle *Cirsium palustre*, Soft Rush *Juncus effusus*, Horsetail *Equisetum sp.*, Water Forget-Me-Not *Myosotis scorpioides*, Water Dropwort *Oenanthe sp.* and Meadow Sweet *Filipendula ulmaria*.

[1] Associate member of the Chartered Institute of Ecology & Environmental Management (CIEEM)
[2] Joint Nature Conservation Committee (JNCC) (2010) *Handbook for Phase I Habitat Survey. A technique for environmental audit.* JNCC, Peterborough.

Further north along the drainage route, the grassland transitions to areas of dense scrub and tall ruderal vegetation, which at the time of the current survey, were inaccessible (Target Note 5). This includes dense Bramble *Rubus fruticosus agg*. scrub, Common Nettle and occasional Willow *Salix sp*. stands.

The proposed drainage route intersects a species-poor hedgerow as it exits the northern boundary of the site (Target Note 1). The unmanaged hedgerow supports tall stands of Hazel *Corylus avellana*, Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa* and Oak *Quercus sp*. (up to 5m in height).

The proposed drainage route is located parallel to an existing ditch and bank supporting a line of mature Oak trees. The existing ditch (located to the east of the tree line) contains a small volume of water with no aquatic vegetation present and is heavily shaded by the adjacent hedgerow understorey. The trees located along the bank appear over-mature in appearance and were assessed for their potential to support roosting bats. The trees located nearest to the site (at Target Notes 3 & 4) support a number of potential bat roost features (PRFs) including large cavities and desiccation fissures and were assessed to have moderate to high potential to support roosting bats. Trees further north along the proposed route were not assessed as they could not be accessed due to dense vegetation and boggy ground (as shown on the attached plan in Appendix II).

No invasive plant species were identified along the proposed drainage route.

Recommendations

The walkover survey identified that the proposed drainage route intersects areas of grassland, dense scrub and hedgerow. The route is also located within close proximity to mature trees assessed to have moderate – high potential to support roosting bats. The Stage 2 survey work at the application site identified that the northern hedgerow boundary, which the route intersects, supports at least 6no. foraging and commuting bats species and was considered to be of Local importance to bats. The following avoidance and mitigation measures are considered appropriate to the off-site drainage proposals and remain consistent with those included in the previous reports.

- Removal of woody vegetation (e.g., dense scrub) to avoid the nesting bird season (typically March – September) and be undertaken over the winter period.
- Retention of hedgerow located along northern site boundary (priority habitat). Any disturbance or selected shrub removal (to accommodate the drainage route) should be minimised and temporary in nature, with any shrub removal undertaken over the winter period and replacement

planting provided at the earliest planting opportunity, to minimise disturbance to foraging and commuting bats.

- Sensitive approach to clearance of grassland along the proposed drainage route to minimise any risks to reptiles or amphibians that may be present (vegetation to be cleared via a directional two-stage process between April and October).
- If any trees assessed to have potential to support roosting bats are likely to be impacted by the proposed works[3] further survey work to establish the likely presence/absence of roosting bats will be required to determine any further mitigation measures or licencing requirements. As per current best practice guidelines (BCT, 2016), for trees assessed to have high potential to support roosting bats 3no. separate survey visits are recommended.
- Appropriate pollution prevention measures to minimise run-off into adjacent ditch.

[3] An Arboricultural Impact Assessment (AIA) would be appropriate if any excavation or widening of the existing ditch is required.

References

Bat Conservation Trust (2016) *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.

Soltys Brewster Ecology (SBE) (2022a) *Sandy Lane, Ystradowen – Preliminary Ecological Appraisal*. Document Ref: E22108601/Doc 01. Dated: March 2022.

SBE (2022b) *Sandy Lane, Ystradowen – Stage 2 Ecology Report*. Document Ref: E22108601/Doc 02. Dated: December 2022.

APPENDIX I PRELIMINARY ENGINEERING APPRAISAL

Storage Notes:-

Total Site area = 1.568ha

Approximate Discharge Rate = 5.4 l/s

Impermeable area Incl. UC = 0.75ha

Estimated Storage = 538-840m3 (Circa 645m3 required based on hydrobrake)

Available Volume in Pond Basin with Retaining Wall = 645m3

Confirmation required from the VOG for the wall arrangement and adoption

LEGEND:-

- Proposed Retaining Wall - Slab on edge to be considered for walls adjacent gardens / patios for heights up to 0.45m
- Proposed criblock Retaining Wall
- Proposed Underbuild
- Proposed Tanking
- Proposed Ground Level
- Proposed Finished Floor Level
- Proposed Embankment
- Proposed Pumping Station Position
- Proposed Rising Main
- Proposed Permeable Paving (Tanked - subject to location specific infiltration tests).
- Proposed SWALE positon

NOTES

- Bio-retention Trenches to be provided to all plot surface water drainage
- Steps not indicated, to be considered with adjacent retaining wall also
- SUD's features indicative only and subject to discussions with VOG CC
- Permeable paving to be considered within plot driveways - privately maintained by house owner

Proposed Surface Water Route

SW to discharge into adjacent discharge to Greenfield rates via a flow control device

Adjoining site rising main easement / extents

Grasscrete maintenance Access Track

Proposed Pumping Station Position - Type 3

Detention Basin with a 645m3 capacity

Attenuation Basin

Cascade feature to be built to discharge SW into Basin from SWALE

Option A - Point of discharge in Badgers Brook close infrastructure

Wall moved off boundary to allow for construction footprint

Contractibility issues for retaining wall, more room required

Option B Rising main to discharge to DCWW sewer - Location to be confirmed

Sandy Lane

Very Wet Field

very dense undergrowth

P.O.S.

L.A.P

Surface Water to discharge to ditch / stream via headwall adjacent 'Point B'.

6m Easement Over SW (Subject to Confirmation by SAB)

Proposed Surface Water Route

SW to discharge into adjacent discharge to Greenfield rates via a flow control device

Detention Basin with a 645m3 capacity

Attenuation Basin

Rev	Date	Description	By
9	02.03.21	Outfall plan added, permeable paving note added	RWP
8	04.01.22	Site Layout amended, engineering amended to suit.	RWP
7	07.12.21	Site Layout amended, engineering amended to suit.	RWP
6	22.11.21	Site Layout amended, engineering amended to suit.	RWP
5	06.09.21	Site Layout amended, engineering amended to suit.	RWP
4	27.08.21	Site Layout amended, engineering amended to suit.	RWP
3	09.04.21	Basin Arrangement Revised	RWP
2	05.11.19	DCWW connection pot indicated, rising main amended to suit.	RWP
1	31.10.19	Site Layout amended, drawing added, Sheet updated to A3	RWP

Dimensions to be verified on site.
This drawing should not be scaled. Use figured dimensions only
Any discrepancies should be referred to the Engineer prior to work being put in hand.
This drawing is copyright.

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QuadConsult ENGINEERS IN PARTNERSHIP
Consulting Civil & Structural Engineers

Client: The key to quality Lewis Homes

Project: Ystradowen

Title: Preliminary Engineering Appraisal

Drawing Status: FOR INFORMATION ONLY

Designed by	Drawn by	Checked by	Date	Scales @ A2 size
RWP	RWP	SM	Oct '19	1:250
Project No		Drawing No		Revision
19351		SK101		9

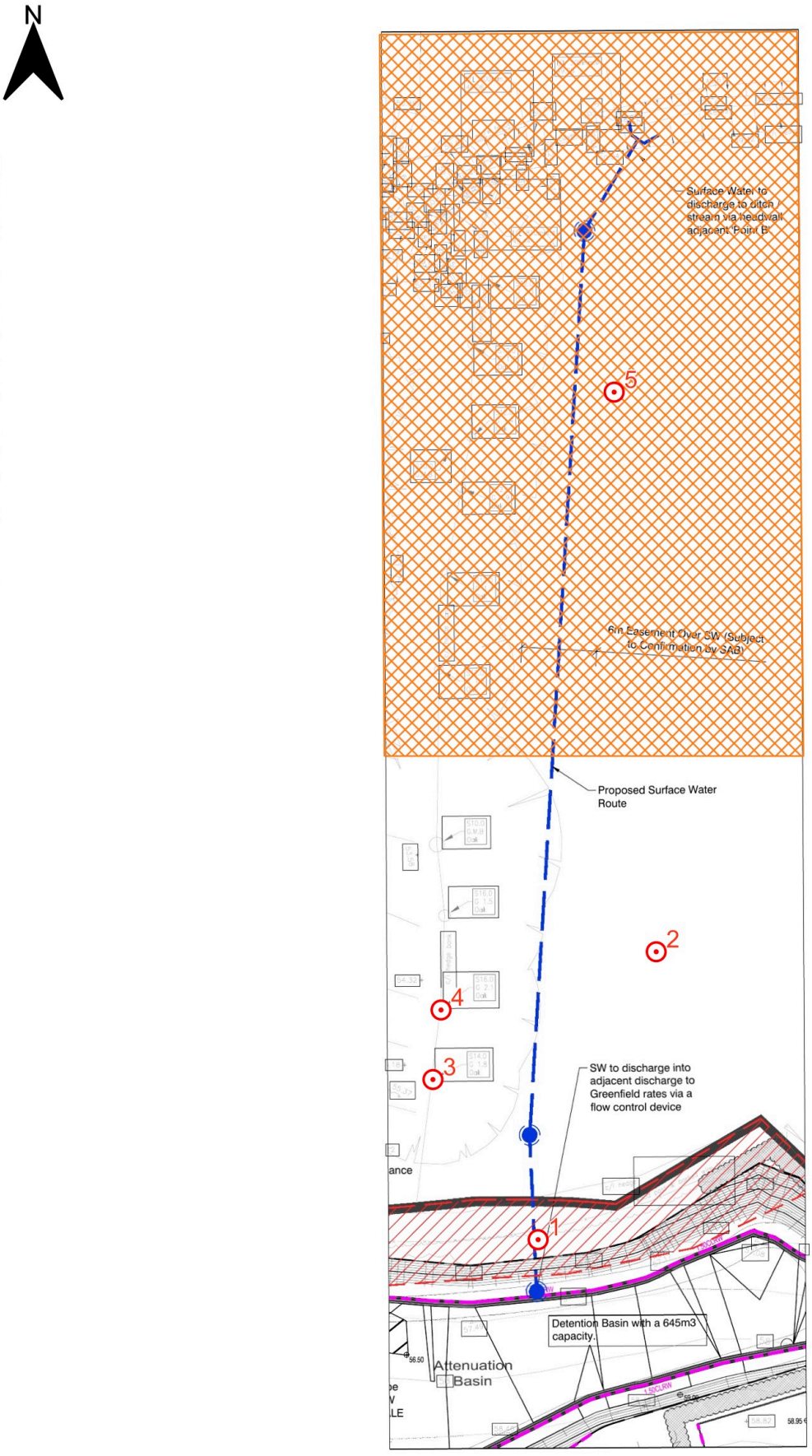
File name: 19351-C-SK101 Rev 9 Preliminary Engineering Layout.dwg

APPENDIX II ECOLOGY WALKOVER PLAN AND TARGET NOTES

Target Note	Description
1	Unmanaged species-poor hedgerow supporting tall stands of Hazel, Hawthorn, Blackthorn and occasional Oak. 
2	Area of poor SI grassland transitioning to tall ruderal and dense scrub vegetation. 
3	Mature Oak tree assessed to have moderate potential to support roosting bats. The north extending branch has significant damage/decay with small desiccation fissures and large cavity – although this is upwards facing and likely exposed to weather conditions.

	
4	Mature Oak tree assessed to have high potential to support roosting bats. Tree contains cavity on main trunk (approx. 0.5m high) which leads to internal cavity capable of supporting a large number of roosting bats. 
5	Inaccessible area. Dense scrub.



Key

- Target Notes
- No Access

PRELIMINARY	PLANNING	DESIGN	TENDER	CONSTRUCTION

Lewis Homes

Sandy Lane, Ystradowen

Ecology Walkover - Off-Site Drainge

E22108601/DR08 DJ MW 06 June 2023

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