

**Wynchmoor,
Pursers Lane,
Peaslake,
Surrey Hills,
GU5 9RE**

**PROVISIONAL ENVIRONMENTAL
ASSESSMENT
(including Phase 1 Bat survey & Phase 2
Emergence Survey)**

25th February 2023

Dr.Jonty Denton (Chartered Ecologist) FRES FLS MCIEEM CECol



Prepared by

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EXECUTIVE SUMMARY

Consultant Chartered Ecologist Dr.Jonty Denton FRES FLS MCIEEM CEcol was commissioned to undertake Provisional Environmental Assessment and Daytime Bat Assessment (Phase 1) of Wynchmoor, Pursers Lane, Peaslake, Surrey Hills, GU5 9RE.

The Daytime Bat Assessment / Phase 1 Bat Survey was undertaken in accordance with the Bat Conservation Trust Guidelines (Collins, 2016) on 25th February 2023.

The house has medium potential. Therefore, a phase 2 bat survey is recommended.

Priority habitats

There are no priority habitat on site but there are woodlands included on the priority habitats inventory over Pursers lane to the south.

INTRODUCTION

This report presents the results of a Provisional Ecological appraisal including a phase 1 bat survey at Wynchmoor, Pursers Lane, Peaslake, Surrey Hills, GU5 9RE.

The purpose of the survey was to assess the ecological value of the site and identify its suitability for protected animal species and identify ecological constraints resulting from the proposals for the redevelopment of the site.

Site Setting and Description

The site encompasses a large mature garden with a house and garage. These are situated in Peaslake in a rural setting in Surrey. The site is flanked by mature gardens to the north and east and open pasture to the west.

METHODS

General

A Phase 1 habitat survey and Provisional Environmental Assessment (PEA) were undertaken in line with guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017), which indicates that a PEA normally involves:

An assessment of the possible presence of protected or priority species and the likely importance of habitat features, and notes including mapping of any incidental sightings of non-native invasive plant species and protected or priority mammal species.

The results provide an ecological description of the site and information about species that may occur there. It either allows evaluation of the ecological importance of the site, or - if insufficient to do so - indicates what further surveys are needed.

The phase 1 habitat survey (including habitat assessment for protected species) was carried out on the 25th February 2023 by Dr Jonty Denton (Chartered Ecologist).

Background Data Search

A desk-based assessment was carried out using the DEFRA MagicMap website <https://magic.defra.gov.uk/MagicMap.aspx> to identify all designated sites within 5km of the site and all other designated sites and protected species within 2km.

A search was made for information on statutory designated sites (often internationally and nationally important sites for ecology) and non-statutory designated sites (often important in a local context) within 1 km of the site boundary.

Habitat Survey

Phase 1 Habitat Survey

The site was examined using appropriate methods generally following NCC (1990)¹ for Phase 1 habitat survey, with procedures appropriately selected from Institute of Environmental Assessment (1995) and Jermy *et al.* (1995) for species and any specialist habitat appraisal as required, and/or the current guidance on survey methods and Ecological Impact Assessment from the (Chartered) Institute of Ecology and Environmental Management (*e.g.* CIEEM 2013, IEEM 2007 and updates).

Invasive Non-native Species

Phase 1 habitat survey does not involve exhaustive surveying for any individual plant species, but if invasive plant species listed under Schedule 9 (Part II) of the Wildlife and Countryside Act 1981 (as amended), *e.g.* *Heracleum mantegazzianum* (Giant Hogweed), *Impatiens glandulifera* (Himalayan Balsam) or *Reynoutria japonica* (Japanese Knotweed), were seen during the normal course of the survey then they were noted.

Habitat Assessment for Protected Animals

Introduction

The site was assessed for its suitability to support protected species that are likely to occur in the area. These were:-

- Bats
- badger
- common reptiles (Slow Worm *Anguis fragilis* & Grass Snake *Natrix Helvetica*)
- Great Crested Newts (*Triturus cristatus*);
- birds

Further details of the assessment methods are given below.

Phase 1 Bat Survey Methods

The Daytime Bat Assessment / Phase 1 Bat Survey was undertaken in accordance with the Bat Conservation Trust Guidelines (Collins, 2016).

The Phase 1 Bat Survey was carried out on the afternoon of the 25th February 2023, and comprised of a daytime walkover of the site, internally and externally, to record evidence of any protected bat species.

Details of the survey methods are given below.

The buildings were investigated externally to identify potential bat access/egress locations and roosting areas such as gaps or holes between roof tiles, fascias and soffits and to record direct evidence of bat presence such as droppings and urine staining. This was followed by a detailed investigation of all accessible internal spaces to record evidence of bat roosting activity such as droppings, feeding remains, live animals, corpses, urine staining and fur staining. The building was assessed as to its suitability for supporting roosting bats. The survey conformed to current Bat Conservation Trust guidelines (Bat Conservation, (2016) *Bat surveys for professional ecologists: Good practice guidelines* 3rd edition).

The details of the assessment criteria used to determine the ecological value of on-site attributes is outlined below. During the Phase 1 survey the assessment criteria are based on the potential for the site to support the species considered. However, in many cases Phase 2 surveys will be required to confirm presence /absence of any bat species and hence the importance of a population at the site, therefore the assessment of value should be considered as provisional.

Where possible, a provisional assessment of potential will be made although this may well require Phase 2 surveys to confirm status.

High Potential- High potential buildings are those that have features highly suitable for use by roosting bats, including gaps around soffits, hanging tiles, extensive roof spaces etc. High potential buildings are often, but not always, buildings of more historic construction. Further Phase 2 surveys will be required to confirm the presence/absence of bats.

Medium Potential- Medium potential buildings have a moderate number of features that may be utilised by bats for roosting, these may include loose fascias, roof spaces etc. Further Phase 2 surveys are likely to be required to confirm the presence/absence of bats.

Low Potential- Low potential buildings are those that provide limited bat roosting potential although some features that may be utilised by bats may be present. Further Phase 2 surveys are likely to be required to confirm the presence/absence of bats.

No/Negligible Potential – These are buildings that are extremely unlikely to support roosting bats due to the absence of suitable features. Further Phase 2 surveys are unlikely to be required for buildings with negligible potential.

Phase 1 Survey Equipment

During the Phase 1 survey the surveyor was equipped with 10 x 42 close focus binoculars and a high-powered torch.

Badgers

An initial assessment was carried out to identify areas that might be used by Badgers for commuting, foraging and sett-building within 30 m of the plot. This involved a systematic search for setts, foraging signs, paths (runs) and latrines.

Common reptiles

The site was assessed for its potential for commoner reptile species.

Amphibians

The suitability of aquatic and terrestrial habitat on the site and in the immediate vicinity was considered (where accessible), along with the habitat-connectivity between suitable habitat areas. Aerial photography and Ordnance Survey maps were examined for ponds or other suitable breeding habitat within 500 m of the site.

Birdlife

The site was assessed for its potential for breeding birds as well as foraging and wintering useage.

RESULTS

Designated Sites

Statutory Sites

The site falls with the North Downs AONB. Hackhurst and White Downs SSSI lies 2km to the north and Leith Hill SSSI 2.3km to the southeast.

It falls outside the Nitrate Vulnerable Zone (2017)

Priority habitats occurring within 1km include deciduous woodland (336m to northeast).

Phase 1 Habitat Survey

The habitats on site comprise hardstanding, amenity grassland (semi-improved), shrubberies, and deciduous woodland.

The woodland belt to the rear is of planted mature Douglas fir and larch (See figure 23).

The eastern boundary is a manicured laurel hedge with mature pollarded oaks and a large ash.

The western boundary is dominated by tall dense x Leylandii hedge to over 10 metres in height (See figure 2)

There is a mature shrubbery adjacent to the turning area in front of the house with hazel, ornamental *Prunus* and young cypress. leylandii.

The area north of the house has lawn and mature mixed ornamental shrubberies and flower beds (See figure 4).

The habitats are shown on figures 1. A list of vascular plants is given in Appendix 1.

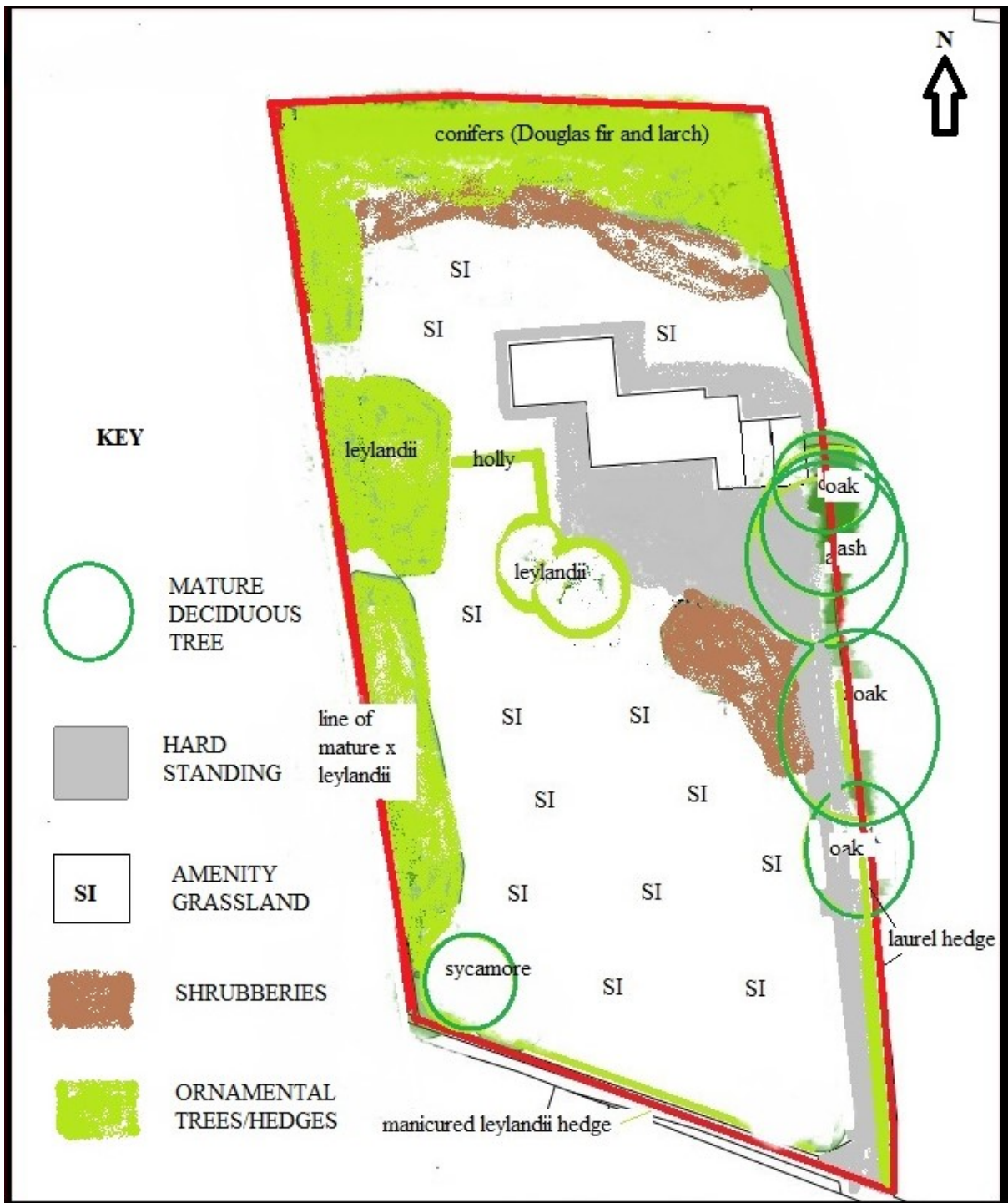


Figure 1. Habitat map (south section).



Figure 2. Looking northwest across garden to southwest of house.



Figure 3. Looking east across garden to rear of house



Figure 4. Looking west across parking area in front of workshop.

Invasive Non-native Species

No plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) were recorded on the site.

Bat Survey

Bats are fully protected under the Wildlife and Countryside Act 1981, as amended, and also receive additional protection via The Conservation of Species and Habitats Regulations (2010) from intentional killing and injury and from intentional damage, destruction or obstruction of access to a place of shelter. It is an offence to kill or injure a bat or interfere with any roosting or resting site. A bat roost is interpreted as "any structure or place used for shelter or protection" whether or not bats are present at the time or not. Barbastelle Bats, Bechstein's Bat, Noctule, Soprano Pipistrelle, Brown Long-eared Bat, Greater Horseshoe Bat and Lesser Horseshoe Bat are also UK BAP Priority Species and SPI.

According to the DEFRA's MagicMap, a bat license 2020-45972-EPS-MIT was issued for a property 520m to the south. This was issued in 2014 for common pipistrelles.

Building assessments

House

The house is a dormer bungalow with attached flat roofed extension and garage. There is a pitched roof extension off the northwest corner connected by a small pitched roof connecting roof faced with hang tiles. The dormers are faced with hang tiles with some potential openings (see figures 5 and 6).

The loft void was accessed via a hatch in an upstairs landing. It is lined with bitumen felting which his in good order. The floor is covered with fibre glass insulation throughout. There was no external light visible from within the loft and no sign of any bat activity.



Figure 5. South and east elevations of bungalow looking north. Red arrow indicates opening into soffit.



Figure 6. North elevation of bungalow looking south.



Figure 8. Loft void looking east.

Garage

The attached flat roofed double garage has no enclosed voids and has negligible potential for bats.

Shed

The derelict sheds to the north of the house (see figure 9) have negligible potential for bats with no enclosed voids or crevices.



Figure 9. Derelict shed looking north.

Trees

Several mature trees are earmarked for removal and an attempt was made to carry out Ground Level Tree Assessment (GLTAs). The mature x leylandii have negligible potential for roosting bats being devoid of holes or cavities.

Badgers

Badgers are protected under the Protection of Badgers Act 1992, which makes it illegal to kill, injure or take a badger or to interfere with their setts; such as by the use of heavy machinery nearby.

There were feeding signs typical of badger (see figure 10) 10m north of the house, but no signs of sett entrances on or within 5m of the plot.



Figure 10. Badger feeding signs of house.

Reptiles

There is negligible potential for reptiles in the absence of unshaded structured habitats.

Amphibians

Great Crested Newts are protected under schedule 5 of the Wildlife and Countryside Act 1981 and of the Conservation (Natural Habitats &c) Regulations 2010 from intentional killing and injury and from intentional damage, destruction or obstruction of access to a place of shelter. In addition Great Crested Newts and Common Toads are UK BAP Priority species and SPI.

There are no water bodies on site and the nearest pond marked on OS map is 632m to the southwest. According to Magicmaps there are no GCN returns within 1km of the property. Amphibians such as Common Frog and Common Toad (UKBAP/SPI) may occur in the wider area.

Breeding Birds

All wild birds are protected under Wildlife and Countryside Act 1981, as amended, from damage or destruction of their nest whilst in use or construction, some birds listed on Schedule 1 receive additional protection from disturbance during nesting.

Birds recorded on site included Blue Tit, Chaffinch, Goldfinch, Coal Tit, Great Tit, Magpie, Robin, Song Thrush and Wren. Jackdaws and a buzzard were seen overflying the plot.

EVALUATION, IMPACTS AND RECOMMENDATIONS

Designated Sites

The site falls within the North Downs AONB. Hackhurst and White Downs SSSI lies 2km to the north and Leith Hill SSSI 2.3km to the southeast.

It falls outside the Nitrate Vulnerable Zone (2017)

Habitats

The areas that would be impacted by the proposals include shrubberies, amenity grassland and hard standing.

Protected Species

Reptiles

There is negligible potential for reptiles in the absence of unshaded structured habitats.

Amphibians

There is potential for common amphibians to use surface refugia in the woodland and shrubberies. A careful watching brief should be kept and surface refugia searched prior to any ground clearance. Any animals found should be relocated to a designated safe area at the north end of the woodland.

Breeding Birds

Any removal of vegetation and structures should be undertaken outside of the bird nesting season, which is typically 1st March to 31st August.

If any works occur within the breeding bird season the shrub layer and trees should be checked, ideally by an ecologist, and if any nesting birds are found there is a legal obligation to protect the affected area with a buffer zone of 10m until after the young have fledged.

Phase 1 Bat Survey

The house has some potential for roosting bats in form of access points into unventilated spaces. A phase 2 emergence survey is required to confirm whether bats are utilising the property.

This would entail positioning surveyors around the structures such that all potential entrance/exit points are covered. The structures are then watched from 30 minutes before sunset to 90 minutes after sunset.

Any emerging or re-entering bats are recorded along with their flight path, their species and the time of flight.

An emergence survey would identify:

- Whether bats are present in a structure, the species and number involved
- Entrance and exit points for the roost
- The type of roost
- Actions needed to be taken to ensure legal compliance.

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INTERNET RESOURCES

Google Maps: www.maps.google.co.uk

Magic Interactive Map: www.magic.gov.uk

Appendix 1. Plant species list

LD =locally dominant, F= frequent, O= occasional, R= rare, P= planted

<i>Acer pseudoplatanus</i>	Sycamore	very common	O
<i>Achillea millefolium</i>	Yarrow	very common	F
<i>Agrostis capillaris</i>	Common Bent	very common	O
<i>Agrostis stolonifera</i>	Creeping Bent	very common	F
<i>Arrhenatherum elatius</i>	False Oat-Grass	very common	O
<i>Arum maculatum</i>	Lords-and-Ladies	very common	O
<i>Conyza canadensis</i>	Canadian Fleabane	very common	O
<i>Epilobium</i> sp	Willowherb	common	F
<i>Fagus sylvatica</i>	Beech	very common	P
<i>Ficaria verna</i>	Lesser celandine	common	F
<i>Galium aparine</i>	Cleavers	very common	LD
<i>Geranium lucidum</i>	Round-leaved cranesbill	very common	F
<i>Holcus lanatus</i>	Yorkshire-fog	very common	F
<i>Hypericum calycinum</i>	Rose-of-Sharon	common	P
<i>Hypochaeris radicata</i>	Cat's-ear	very common	F
<i>Ilex aquifolium</i>	Holly	very common	LD
<i>Lolium perenne</i>	Perennial Rye-grass	very common	F
<i>Malus domestica</i>	Apple	common	P
<i>Plantago lanceolata</i>	Ribwort Plantain	very common	F
<i>Pteridium aquilinum</i>	Braken	very common	F
<i>Poa annua</i>	Annual Meadow-grass	very common	F
<i>Polygonum aviculare</i>	Knotgrass	very common	LD
<i>Ranunculus acris</i>	Meadow Buttercup	very common	F
<i>Ranunculus repens</i>	Creeping Buttercup	very common	F
<i>Pilosella officinarum</i>	Mouse-ear hawkweed	very common	LD
<i>Prunella vulgaris</i>	Selfheal	very common	F
<i>Quercus robur</i>	Pedunculate Oak	common	O
<i>Rumex acetosa</i>	Common sorrel	very common	F
<i>Rumex obtusifolius</i>	Broad-leaved Dock	very common	F
<i>Sagina procumbens</i>	Procumbent Pearlwort	very common	F

<i>Stellaria holostea</i>	Greater stictchwort	common	F
<i>Taraxacum</i> spp	a dandelion	common	F
<i>Trifolium pratense</i>	Red Clover	very common	O
<i>Trifolium repens</i>	White Clover	very common	O
<i>Urtica dioica</i>	Common Nettle	very common	O
<i>Veronica persica</i>	Common Field-speedwell	very common	F
<i>Viola riviniana</i>	Common Dog-violet	common	F
X <i>Cupressocyparis leylandii</i>	Leyland Cypress	very common	LD

**Wynchmoor,
Pursers Lane,
Peaslake,
Surrey Hills,
GU5 9RE**

Phase 2 Bat emergence survey

July 2023

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TIMING AND METHODOLOGY

The surveys were conducted on evenings of the 30th June and 14th July 2023.

Surveyors were stationed to the southwest viewing the western and southern elevations and to the northeast viewing the northern and western elevations. Canon XA40 HD digital camcorders with IR illumination were also employed at each station (see figure 1). Survey commenced 30 minutes before sunset and continued until 90 minutes after sundown. *EchotouchPro*, *Echotouch*, and *Batbox Duet* detectors were employed to monitor and record bat activity. Walkie-talkie communications were maintained between surveyors to avoid multiple counting and help triangulate emergence and flight lines.

Survey Team

Dr. Jonty Denton is a licensed bat ecologist with over 25-years experience monitoring bats across England & Wales.

Ruby Denton Bsc (Hons) has over 5-years' experience, clocking up over 500 hours on Phase 2 emergence/re-entry and transect work, and has experience of 10 species across South-East England.

RESULTS

The night of the 30th June was warm and breezy with light drizzle 100% cloud cover.

The night of the 14th July was also mild and breezy with 90% cloud cover.

SPECIES ENCOUNTERED

Common Pipistrelle *Pipistrellus pipistrellus*

Active on all both surveys with peak count of 4 on 30th June. These emerged remarkably early (before sunset) and were foraging in the lea of the tall trees to the west of the property.



Figure 1. Locations of viewers, cameras (Blue stars) and bat flightpaths (red and orange lines)

(courtesy of Googlemaps)

CONCLUSIONS

Activity was generally low with exception of a feeding frenzy of common pipistrelles pre-sunset on the 30th June.

As a number of bats were observed commuting and foraging across the site, lighting must also be considered as part of the proposal. Lighting can be detrimental to roosting, foraging and commuting bats. Any new lighting around the buildings must be focused away from the tree lines and hooded or baffled to ensure minimal light spillage. Lamps of greater than 2000 lumens (150 W) must not be installed.

APPENDIX 1. FIELD DATA

Project		Start time	20.50	Finish	22.40	Temperature	18 C at start 15 C at finish
	JD RD	30.6.23		sunset	21.20	Weather	100% cloud beaufort 1
Bat passes heard							
Station no.	Start time		No.	passes	comments		
NE, SW	21.38	Common pip	4	20+	Foraging in shelter of tall trees to west of house (see A on figure 1)		
NE	21.48-50	Pipistrelle sp.	1	5	Foraging >30m to north of property		
NE,SW	22.01-03	Pipistrelle sp.	1	5	Foraging >30m to north of property		

Project		Start time	20.45	Finish	22.42	Temperature	17 C at start 16 C at finish
	JD RD	14.7.23		sunset	21.12	Weather	100% cloud beaufort 1
Bat passes heard							
Station no.	Start time		No.	passes	comments		
SW	21.18-20	Common pip	1	5+	Foraging to west of house		
SW	21.26	Common pip	1	1	Flew in from southeast past west gable (see flightpath B on figure 1)		
SW	21.48	Pipistrelle sp.	1	1	Brief pass to southwest HNS		