PENNINE ecological

PRELIMINARY ECOLOGICAL APPRAISAL

SKIRDEN LODGE

JANUARY 2025

Chartered Institute of Ecology and Environmental Management

CIEEM

25 YEARS

Arboricultural ASSOCIATION Professional Member

Preliminary Ecological Appraisal

Skirden Lodge, Tosside, North Yorkshire, BD23 4SX

A report for

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1. INTRODUCTION

1.1 REASON FOR SURVEY

PENNINE ecological have been commissioned by Andrea Waddington, to undertake a Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment at land at Skirden Lodge, Tosside.

The assessment is required for a planning application to convert an existing building into a dwelling with associated parking and landscaped garden.

A biodiversity survey and report has been completed to provide a baseline of the site conditions and to determine whether the proposals would result in significant impacts to protected habitats or species.

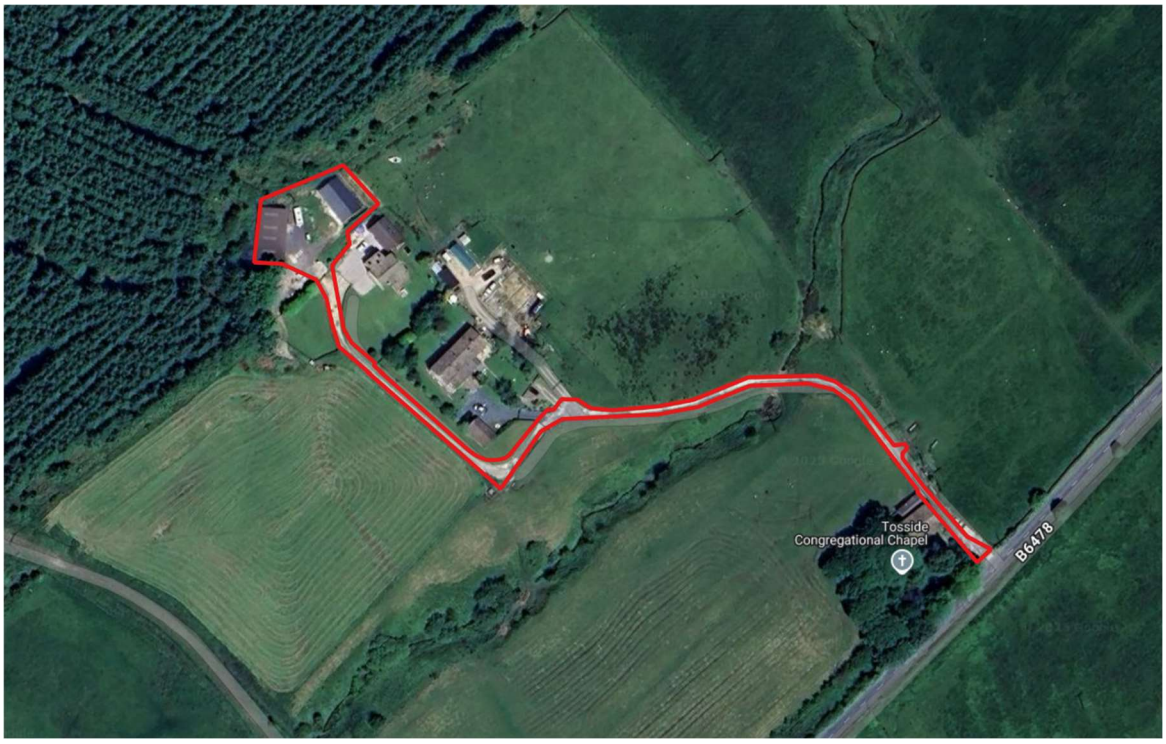
This report addresses potential ecological impacts which may arise from the proposals. This includes;

- Habitat assessment (UKHabs survey).
- Badger survey.
- Potential breeding bird issues associated with the site.
- Great Crested Newt Assessment.
- Common amphibians.
- Riparian mammals.

1.2 SITE LOCATION

The site is situated within a predominantly agricultural area to the west of Tosside, North Yorkshire. The sites central National Grid Reference is SD 7686 5548. An aerial image of the area subject to survey is shown below.

Figure 1.1: Aerial image of land at Skirden Lodge, with red line survey area



2. METHODOLOGY

2.1 DESK SURVEY

A desk-based data search using freely available information was undertaken.

The Multi Agency Geographical Information Centre www.magic.gov.uk was also referred to in respect of statutory sites, GCN licence returns, and European Protected Species Licences (EPSL) issued in respect of GCN and bats.

A review of the Craven District Council planning portal was undertaken in relation to historic planning applications within the vicinity of the site.

In addition, Pennine Ecological's dataset was referenced which contains extensive records of species and habitats generated from surveys undertaken since the company's formation in 1996.

It should be noted that species records over 500m of the site are not reproduced here as they are considered to have no association with the site and are beyond the sphere of influence for this proposal.

2.2 HABITAT SURVEY

A UK Habitat Classification (UKHabs) survey (UKHab Ltd, 2020) of the habitats within the red line boundary was undertaken on 21/01/2025. The site's habitats were mapped, and vascular plant species were recorded and given a DAFOR ((Dominant (D), Abundant (A), Frequent (F), Occasional (O), Rare (R)) score. Each habitat was given a distinctiveness and habitat condition score (Natural England, 2023). Secondary codes have been applied where required to describe the primary habitats. Habitats have been mapped using the fine-scale minimum mapping unit.

2.3 PROTECTED SPECIES SURVEYS

Badger Survey

A badger survey was undertaken of the site and up to 50m from the site boundary (where access permitted) and followed standard survey guidance (Harris et al., 1989, and Roper, 2010). The badger survey used standard techniques for establishing the use of the site by badger, and includes searches for evidence of badgers including:

- Setts.
- Pathways.
- Footprints.
- Latrines.
- Foraging areas.
- Scratching posts.
- Boundary searches for runs, pathways, and latrines.

Preliminary Roost Assessment

The preliminary bat roost assessment was undertaken on the 21/05/2024 following the methodology outlined in Bat Conservation Trust: Bat Surveys for Professional Ecologists, Good Practice Guidelines (2023). All buildings on the site were assessed from ground level and using close focusing binoculars where required and were subject to internal inspections.

Breeding Bird Assessment

The site was assessed for its potential to support breeding birds. This included identifying any evidence of historic nesting within the site.

Any bird activity within the site was recorded whilst undertaking the site survey.

Great Crested Newt Assessment

The site was evaluated by means of desk study and the surveyor's specialist knowledge of the species, in particular its terrestrial habits and breeding requirements.

Riparian Mammals

The brook which flows through a culvert under the access road for the site was subject to riparian mammal surveys. A search for evidence of water vole and otter was undertaken within the site and up to 50m upstream and downstream of the site. The survey included a search for; spraints/anal jelly (otter), latrines (water vole) burrows/holts/lay-ups, feeding remains and footprints. In addition, a habitat suitability assessment of the waterbody for both water vole and otter was undertaken

Other Protected and Notable Species

Consideration was given to other protected and notable species potentially present. The following species / species groups have been scoped out for further assessment, with brief reasoning provided below:

- Reptiles – There are no records of reptiles within 500m of the site and the site is not connected to any areas with known reptile populations. The habitat on site provides limited value for reptiles. Therefore reptiles are highly likely to be absent from the site and locally.
- Invertebrates – The are no notable invertebrate records within 500m of the site. The site is primarily arable field and of limited size. The site is highly unlikely to support notable invertebrate assemblages.

These species are not discussed further within this report.

2.4 SURVEY CONSTRAINTS

The site survey was conducted on 21/01/2024. Full access to the site and surrounding area was possible. The habitats on site were accurately identified and condition assessed.

There are considered to be no limitations to the evaluations and recommendations provided within this report.

Water vole surveys were undertaken outside the recognised survey season, however there are no impacts on the watercourse, so this constraint is not considered significant.

2.5 SURVEYOR EXPERIENCE

The surveyor and author of this report, Marcus Hogg, is a qualifying member of the Chartered Institute of Ecology and Environmental Management (QCIEEM) and has over five years' experience in ecological survey and evaluation. Key skills include the following.

- Extended Phase 1 Habitat Survey/UKHabs Survey.
- Proficient field botanist.
- Breeding bird survey.
- Mammal surveys including surveys for badger and preliminary bat roost survey. Natural England Bat Class Licence: 2022-10305-CL17-BAT.

- Extensive experience in great crested newt (GCN) surveying. Natural England Class Licence: 2022-10622-CL08-GCN.
- Ground-level and aerial tree assessments.

3. RESULTS

3.1 DESK STUDY

3.1.1 Statutory Sites

The site is situated within the Forest of Bowland Area of Outstand Natural Beauty (AONB).

In addition, the site falls within the Impact Risk Zone[1] (IRZ) of White Moss Site of Special Scientific Interest (SSSI) which is located approximately 2.7km to the south-east of the site. Due to the nature and scale of the development and the distance to the SSSI, consultation with Natural England is not required.

3.1.2 Non-Statutory Sites

There are no non-statutory designated sites within 2km of the site.

3.1.3 Protected / Notable Habitats and Species

There are three parcels of deciduous woodland within 1km of the site. The closest of which is 190m south-west of the site.

3.2 HABITAT SURVEY

Habitats Present

- g4 Modified grassland
- u1c Artificial unvegetated – unsealed surface
- u1b Developed land; sealed surface
- u1b5 Buildings

General Description

The site comprises two existing buildings with associated gravel parking a residential garden. The site is accessed from the south via a concrete road.

Habitat Descriptions

(i) g4 (*847*); Modified grassland (*introduced shrub*)

In the northeast of the site is modified grassland mown short for use as a lawn. The grassland is dominated by perennial ryegrass (*Lolium perenne*) (D) with frequent occurrences of Yorkshire fog (*Holcus lanatus*) (F), red fescue (*Festuca rubra*) (F), and creeping buttercup (*Ranunculus repens*) (F). Soft rush (*Juncus effusus*) (O) is observed occasionally in wetter areas.

Within the grassland southeast of B2 are newly introduced young specimen shrubs comprising cherry laurel (*Prunus laurocerasus)* (F) and Lawson's cypress (*Chamaecyparis lawsoniana*) (F).

[1] The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks posed by development proposals to: Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites

(ii) u1b; Developed land; sealed surface

Access to the main development area is via a concrete track. The habitat is sparsely vegetated with grassland species inhabiting the verges in some areas. Species include perennial ryegrass (D) with frequent occurrences of Yorkshire fog (F), cock's-foot (*Dactylis glomerata*) (F), and creeping buttercup (F). Soft rush (O) is observed occasionally in wetter areas.

(iii) u1b5; Buildings

In the north of the site are two buildings. B1 is a barn constructed from wood with timber cladding and a corrugated metal roof. B2 is a single-storey residential building constructed from block and stone with a pitched slate roof (detailed descriptions in Section 3.3.2).

(iv) u1c Artificial unvegetated - unsealed surface

In centre of the site is an area of unvegetated unsealed surface comprising compacted gravel used for parking.

3.3 PROTECTED SPECIES SURVEYS

Badger Survey

(i) Setts

The survey found no setts on site or within 50m of the site.

(i) Foraging Signs and Pathways

No sign of badger activity was found on site or within 50m of the site.

(ii) Boundary Search

All of the boundaries of the site were walked and examined for potential runs, pathways, and latrines. The search found no evidence to suggest badger activity along any of the site boundaries.

The absence of any activity signs indicates that badgers are not entering the site. The absence of latrines indicates a lack of territorial activity in the near vicinity of the site.

Bat Assessment

(iii) Preliminary Roost Assessment

The site includes two existing buildings. B1 is a working agricultural barn and B2 is a residential building which is to be converted into two dwellings.

B1 is a wooden agricultural barn with timber cladding and a corrugated metal roof. The barn is open on its eastern aspect. No signs of bats (e.g. bat droppings) were identified during the survey. Overall, the barn is in good condition with only minor signs of damage/decay which could be used by roosting bats. Three potential roost features (PRFs) were recorded on the building which are described in Table 3.1 and Figure 3.1 below.

Table 3.1: Potential Roost Feature Details

PRF ref	PRF description	PRF suitability
1	Gap under timber cladding right of window on eastern aspect. Gap has depth of approximately 20cm which could accommodate low numbers of crevice dwelling bats only.	Low

2	Gap under timber cladding above window on eastern aspect of the building. Gap has depth of approximately 40cm, but it is unlikely to lead into a larger cavity. This feature has potential to accommodate small-moderate numbers of crevice dwelling bats.	Mod
3	Wooden rectangular bat box on northern aspect of the building. The bat box is clear of obstructions and faces the adjacent woodland. This bat box design has potential to accommodate moderate numbers of crevice dwelling bats but is unlikely to be support larger roosts such as maternity.	Mod

B1 is considered to have '**Moderate**' bat roost potential.

B2 is a single-storey residential building which currently comprises three dwellings separated by internal walls. The building is to be converted into two dwellings as part of the development proposals. The building is in a state of partial construction with completed exterior block walls and pitched timber and slate roof. The roof is vaulted and is lined with a breathable membrane. The building is in good condition typical of a newly built structure. The are no signs of damage or decay and no gaps on the exterior or interior of the building which could be used by roosting bats.

B2 is considered to have '**Negligible**' bat roost potential.

There are no trees on the site which could be used by roosting bats.

(iv) Bat Habitat Suitability

The grassland on the site has limited suitability for foraging bats. To the north of the site is conifer plantation woodland which is some limited value for foraging bats. Scattered trees and hedgerows in the surrounding landscape are likely to provide roosting and foraging potential for bats as well as acting as corridors for commuting bats. However, lighting from the working agricultural barn on the site (including security lighting) are likely to create a suboptimal foraging environment for bats on the site.

Based on the habitats present on site and within the surrounds, the site is considered to be sub-optimal for bats and of 'low' suitability.

Bird Assessment

A historic swallow nest was recorded within B2. This is likely to have been built during a phase of construction when the building was not sealed.

No nests were identified within B1, however, the open structure has "**High**" potential for nesting birds.

Bird activity during the survey was low, with only occasional overhead passes by wood pigeon.

Habitats other than B1 within the site are considered to be of '**Low**' suitability for breeding birds.

Great Crested Newts

(v) Pond Scoping

There are no ponds within 250m of the site.

Riparian Mammals

A brook flows southwest through the site and is culverted under the access road. The watercourse has an average width of 50cm and average water depth of 30cm. The substrate varies between boulder and grit/sand. The banks of the water course are natural and comprise grassland and bare earth and are steep in places. There is limited aquatic vegetation within the water and grasses and

rushes dominate the banks. The section of the watercourse that flows through the site is fully culverted with no open sections within the site boundary.

(vi) Water Vole

No evidence of water vole was recorded along the brook.

The banks of the brook are grazed grassland which may provide some shelter and a food source for water vole. The water south of the culvert was fast flowing at the time of the survey which is sub-optimal for water vole. However, water north of the culvert was more suitable for the species.

Presence of water vole cannot be reasonably discounted from the brook.

(vii) Otter

No evidence of otter was recorded along the river.

The brook is small and food sources for otter are likely to be limited (i.e. small numbers of small fish species and crustaceans). There are no suitable lay-up or holt creation areas along the surveyed extent.

Given the absence of otter evidence, the likely limited food availability, and the lack of lay-up / holt construction opportunities, otter are considered absent from the site and locally.

4. EVALUATION AND RECOMMENDATIONS

4.1 DESK STUDY

Statutory Designated Sites

The site is situated within the Forest of Bowland AONB. As the development is residential, the development will not attract an excess of people or traffic to the Forest of Bowland. In addition, the development will enhance it's setting within the landscape inline with isolated development rules. Therefore, no negative impact is anticipated on the Forest of Bowland AONB as a result of development.

The site is falls within the IRZ of White Moss SSSI which is located approximately 2.7km southeast of the site. Due to the limited scope of the development and the distance from the SSSI, no impact is anticipated on the designated site as a result of development. The Natural England (NE) Impact Risk Zone (IRZ) tool[2] has been reviewed and states that there is no requirement to consult NE for this proposal.

(i) Recommendations: Statutory Designated Sites

Due to the scale and nature of this proposal there is no requirement for any further assessment or consultation.

Non-statutory Designated Sites

There are no known non-statutory sites within 2km of the site.

4.2 HABITATS

The existing habitats on site are of low distinctiveness.

The majority of habitats are of very limited botanical value (i.e. modified grassland).

Due to the size and current condition of the habitats on site, the value of the current sites habitats cannot exceed 'site' ecological value, with impacts not extending beyond the land directly affected by the proposals.

The development will need to ensure appropriate compensation for the loss of habitats.

(i) Recommendations: Habitats

A biodiversity net gain (BNG) metric calculation will be undertaken, which will provide a baseline habitat value and indicate how the proposal will achieve a measurable 10% net gain, in accordance with national and local planning policy.

4.3 BADGERS

No evidence of badger activity was found within the site or the wider area during the survey.

It is concluded that badger are absent on site and locally.

(i) Recommendations: Badgers

There are no requirements for further surveys or assessment.

[2] GIS tool developed by Natural England to make a rapid initial assessment of the potential risks posed by development proposals to statutorily designated sites

4.4 BATS

Bats are comprehensively protected under European legislation (Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019).

The agricultural barn (B1) is considered to possess '**moderate**' bat roost potential. B1 is to be retained under the development proposals. Potential roost features within B1 may be disturbed by the proposed landscaping works to the east of the building. Given the limited scope of the landscaping proposals, which would use small plant machinery and hand-tools only, it is considered unlikely that potential disturbance from the works would exceed baseline disturbance of the barns current use.

The site and the surrounding area have some limited value for foraging bats which could be disturbed by artificial light from the development.

The habitat value of the site for bats cannot exceed 'site' ecological value, with impacts not extending beyond the land directly affected by the proposals.

(i) Recommendations: Bats

As B1 is to retained and potential roost features on the building will not be impacted by the development, no further surveys will be required.

A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures:

- Any external lighting will be positioned to avoid light-spill on to conifer plantation to the north and surrounding grassland habitats and trees.
- Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only.
- External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on.
- Narrow spectrum light sources will be used to lower the range of species affected by lighting.
- Light sources that emit minimal ultra-violet light will be used.
- White and blue wavelengths of the light spectrum will be avoided to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm/neutral colour temperature <4,200 kelvin.
- Bare bulbs and any light pointing upwards won't be used. The spread of light will be kept in line with or below the horizontal.

The installation of a bat box on the building will provide additional roosting habitat for bats. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.

4.5 BIRDS

All breeding birds (with only minor exceptions) are offered various levels of protection under the Wildlife and Countryside Act (1981) as amended.

Nesting provisions are provided by the open barn (B1) which will be retained.

The site is not capable of supporting a bird assemblage above 'site' ecological value.

(i) Recommendations: Birds

There are no requirements for further survey or assessment.

Additional bird nesting provisions should be included upon the new buildings. These enhancement measures would contribute to achieving an overall biodiversity net gain for this proposal.

Bird nesting provisions could include:

- Standard bird nest boxes which could support common garden and farmland bird species (e.g. 1B Schwegler nest box).

4.6 GREAT CRESTED NEWTS

Great crested newts are comprehensively protected under European legislation (Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019).

There are no ponds within 250m of the site. Due to the absence of suitable breeding ponds in the vicinity of the site, presence of great crested newt can be reasonably discounted.

(i) Recommendations: Great Crested Newts

No further survey or mitigation required.

4.7 RIPARIAN MAMMALS

Water vole are listed as Section 41 species (Section 41 of the NERC Act, 2006).

No evidence of riparian mammal activity was found within the brook that flows under the site during the survey.

The proposed works are to be isolated to the northern parcel of the site around B2. This is approximately 140m from the brook. The access road which the brook flows under is to be unaffected by the works. Therefore, no impact on water vole is anticipated as a result of the development.

(i) Recommendations: Riparian Mammals

There are no requirements for further survey or assessment.

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Greater Manchester Local Record Centre (GMLRC) MapApp. Latest access 22/01/2025. https://gmlrc.org/mapapp/

Appendix A: Site Photographs

Photograph 1: Modified grassland in the center of the site.

Photograph 2: Artificial unvegetated, unsealed surface currently used for parking.

Photograph 3: Existing artificial substrate access road.

Photograph 4: Brook running through culvert under access track.

Photograph 5: Potential amphibian refugia in the north of the site (Target Note 1).

Photograph 6: B1 – eastern aspect of agricultural barn.

Photograph 7: B1 - PRF1: Gap behind cladding right of window on eastern aspect.

Photograph 8: B1 – PRF2: Gap under cladding over window on eastern aspect.

Photograph 9: B1 – PRF3: Wooden bat box on northern aspect of the barn.

Photograph 10: Internal structure of B1.

Photograph 11: Western and southern aspects of B2.

Photograph 12: Southern and eastern aspects of B2.

Photograph 13: Northern gable of B2.

Photograph 14: Internal structure of B2 showing vaulted ceiling with breathable membrane.

Photograph 15: Historic swallow nest on steel ridge beam in southern-most section of B2.

Appendix B: Figures

Figure 1 – UKHabs Baseline Map


r2b - Other rivers and streams
u1b - Developed land; sealed surface
Site Boundary
Drawn by Marcus Hogg: 22/01/2025
0 10 20 30 40 50 60 70 80 90 100 110 120 m


r2b - Other rivers and streams
u1b - Developed land; sealed surface
Site Boundary
Drawn by Marcus Hogg: 22/01/2025
0
10
20
30
40
50
60
70
80
90
100 m

Appendix C: Condition Assessment Sheets

Modified Grassland Condition Assessment Sheet

Habitat Description
Small section of modified grassland along artificial substrate farm access track. Partially grazed.

ukhab – UK Habitat Classification

	Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	No	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	No	
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Yes	
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Yes	
	Essential criterion achieved (Yes or No)		No
	Number of criteria passed		3

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	1