

RATHDRUM LOCAL AREA PLAN 2017

APPENDIX E

LOCAL BIODIVERSITY AREAS REPORT



Wicklow County Council
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RATHDRUM LOCAL AREA PLAN

2006-2012

Local Biodiversity Areas

January 2006



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1. INTRODUCTION

1.1. Background and Aims

This report was commissioned by Wicklow County Council to assist with the preparation of the Local Area Plan for the town and environs of Rathdrum, Co. Wicklow. The aims of the study were:

- To identify sites within the study area which are of local value for their natural heritage (termed Local Biodiversity Areas).
- To integrate this information into local planning policy as part of the Local Area Plan (LAP) process.
- To map this information and make it available on the Local Authority Geographic Information System (GIS).
- To identify where potential exists for habitat networks which link these LBAs with nearby designated sites, in this way enhancing their overall biodiversity value.

1.2. Definitions

Local Biodiversity Area is a non-statutory term which simply indicates that the site has some local value for nature conservation. It does not imply any legal or other restrictions to use of the site.

Biodiversity is a shortened form of the words “biological diversity”. This means the variety of life forms, both plant and animal.

1.3. Methodology

A desktop study was undertaken by examining colour aerial photographs (flown 2000) of the study area to determine the distribution of semi-natural habitat which is potentially of local biodiversity value. Consultations were undertaken with several agencies to gather records of flora and fauna. The National Parks & Wildlife Service supplied data on designated areas, rare plants and bat species. The Eastern Regional Fisheries Board was consulted in relation to fisheries value of watercourses in the area.

A field survey was carried out in January 2006 to ‘ground truth’ the habitats identified on aerial photographs and to classify these according to the Heritage Council scheme (Fossitt 2000). Dominant plant species were recorded and evidence of fauna was noted where relevant. While winter is not the optimum period for ecological field survey it is possible to infer the presence of certain species from the habitats present. Thus the likely presence of certain fauna was listed.

Based on this information, a number of areas, which contained habitats of local wildlife value, were selected and delineated as **Local Biodiversity Areas (LBAs)**. In addition a number of linear features were identified as **Habitat Networks**. These have the potential to act as corridors or stepping stones for wildlife species moving between the LBAs or between designated areas.

1.4. Site evaluation

The evaluation of each site is based on a field assessment of the diversity and rarity of the habitats and species which it contains. The study used a five-point scale of evaluation for Local Biodiversity Areas based on the site evaluation table (See Appendix 1) prepared by NATURA for other studies. The ratings are as follows:

- A: International value
- B: National value
- C: High local value
- D: Moderate local value
- E: Low local value.

All designated areas fall into the categories A and B (international and national importance) while remaining sites are generally rated C, D, or E (local value from high to low).

2. SURVEY AND ANALYSIS

2.1. General description of study area

Rathdrum is located in the central section of the valley of the Avonmore River. The majority of the town is on the western slopes of the valley between 80m and 200m above sea level. The geology of the town area comprises ancient Cambrian and Lower Ordovician rocks such as slate, phyllite and schist with complex faulting against rhyolitic volcanic rocks and slates of Upper Ordovician age in the river valley area (McConnell 1994).

2.2. Designated areas

Designated areas are those areas of land which have been designated under national or international legislation. These include Natural Heritage Areas (NHAs), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). In some areas, more than one designation applies.

There are two designated areas within the general district of Rathdrum although neither is within the town boundaries. These are as follows:

Vale of Clara (site code 000733): This area is designated as proposed NHA, candidate SAC and is also covered by a statutory Nature Reserve Order. It is managed by the National Parks & Wildlife Service. The principal habitats of interest here are the oak-dominated woodlands and the Avonmore River. There are also records of several rare plant species (see Appendix 2). The southern boundary of the designated area is coincident with the town boundary of Rathdrum.

Avondale House (site code 002093): The house is a proposed NHA as it contains a significant roost of bats of at least six species. The house is located approximately 1km south of the town boundary of Rathdrum but it is linked by woodland habitats occurring along the Avonmore River.

The Avonmore River downstream of Rathdrum is undesignated for a distance of approximately 9km but the lower reaches of the river valley are included in the following pNHA.

Avoca River Valley (site code 001748): The entire pNHA is a large area of mixed woodland located in the valleys of the Avoca and Aughrim rivers. The best examples of relatively pure deciduous woods are found around Shelton Abbey. Oak is the dominant tree species with ash, beech and birch locally abundant. Some of the woodlands have been impacted in the past by air pollution from the fertiliser factory at Arklow.

2.3. Habitats

The main habitat types of biodiversity value which occur within the town boundary of Rathdrum are listed below. The classification (and codes in parenthesis) follows that of Fossitt (2000).

Depositing lowland rivers (FW2)
 Artificial ponds and lakes (FL8)
 Dry calcareous and neutral grassland (GS1)
 Amenity grassland (GA2)
 Mixed broadleaved woodland (WD1)
 Mixed broadleaved/conifer woodland (WD2)
 Conifer plantation (WD4)
 Scattered trees and parkland (WD5)
 Hedgerows (WL1)
 Treelines (WL2)

2.4. Key species

Rare plants

There are two rare plant records from the NPWS rare plant database which are known from the study area. Neither species is protected but both are listed in the *Irish Red Data Book* (Curtis & McGough 1988). The species are as follows:

Greater broomrape (*Orobanche rapum-genistae*) is recorded from Rathdrum, Ballygannon Forest, in 2000. The location is approximately 500m north of the town boundary.

Shepherds needle (*Scandix pecten-veneris*) is a species which is now thought to be extinct in Ireland. It was recorded from the Rathdrum area (grid square T18) in 1950 and has not been recorded since.

Mammals

The mammal species which occur in the town area of Rathdrum are similar to those in the surrounding area, which includes the Vale of Clara and Avondale Woods. Deer (mainly sika/red deer hybrids) are common in the area and are likely to use the woodland in the river valley as a corridor for movement. Badger is also a common mammal in these woodlands and is likely to use agricultural grassland in the Rathdrum Town area for foraging. Otter has been recorded on the Avonmore River

and is also likely to use the minor tributary at the southern end of the town and the pond at the northern end of the town.

A number of bat species have been recorded in the Rathdrum area. Avondale House (1km south of the town boundary) holds a significant roost of at least six bat species: soprano pipistrelle, Leisler's, brown long-eared, natterers, Daubentons and whiskered bats. There is a smaller known bat roost close to St. Colmans Hospital which contained pipistrelle and brown long-eared bats. It is also possible that the railway tunnel at the south-eastern perimeter of the town may hold bat roosts. Two species, Daubenton's and pipistrelle bats have been recorded feeding over the Avonmore River at the road bridge and within Parnell Memorial Park over the ponds. Given the abundance of woodland in the area it is likely that most species of bats known in Ireland (with the exception of lesser horseshoe bats) may occur at some time in the Rathdrum area (information from E. Mullen, NPWS).

Birds

The woodlands in the Vale of Clara contain a typical breeding bird community of old woodlands. This includes a number of less common species such as jay, long-eared owl, treecreeper, woodcock and blackcap. The wood warbler and crossbill have also been recorded in the Clara area while kingfisher, dipper and grey wagtail occur on the Avonmore River. All of these species may occur at some times within the town boundary of Rathdrum, especially in the woodlands and along the river corridor.

The goosander has recently been recorded as a newly established breeding species on the Avonmore River and is likely to use the Rathdrum stretch of the river for feeding at certain times of year. The buzzard is a bird of prey which has recently re-established breeding territories in Co. Wicklow. It is very likely to breed in some of the older, less disturbed woodlands at the south-east of the town.

Invertebrates

Less common butterflies which are known from the Vale of Clara include the holly blue and the silver-washed fritillary. Both of these species could also occur in the woodlands in the Rathdrum area where their foodplants are also found. The freshwater pearl mussel occurred historically in the Avonmore River and may still survive in places

Water Quality and Fisheries

The stretch of the Avonmore River within Rathdrum town boundary is important for spawning of both salmon and trout and sea lamprey have been recorded here by electrofishing (information from Eastern Regional Fisheries Board).. The most recent water quality sampling data from the Environmental Protection Agency (EPA) indicate unpolluted water with a Q value of 4 at Rathdrum Bridge in 2000 (www.epa.ie).

Despite the poor water quality downstream of Avoca, significant numbers of salmon and sea trout run upriver to spawn in clean, uncontaminated waters in the upper reaches of the catchment. An extensive fish stock survey was carried out by the Central and Eastern Regional Fisheries Boards in 2001 and 2002, which showed that juvenile salmon were widely distributed at 74% of all sites throughout the upper part of the catchment, while brown trout are widely distributed in the upper main channel and its tributaries. Sea lamprey and eels also pass upstream, presumably

under spate conditions when dilution of pollutants in the water would be greatest (information from Eastern Regional Fisheries Board).

2.5. Local Biodiversity Areas

Based on the desktop study and field survey a number of Local Biodiversity Areas were selected and delineated in the study area. These are described briefly below and tabulated in Appendix 3.

LBA 1. Avonmore River and banks

The entire river within the town boundary is included because it contains a significant amount of semi-natural habitat including river channel with the full sequence of riffle, glide and pool with marginal gravel banks on the meanders. In many parts, the banks are overhung with trees, including oak, ash, willow, alder and birch. It is an important salmonid river with spawning salmon, trout and sea lamprey in the main channel and tributaries. The river is also a vital passage for salmon and trout migrating to the upper reaches of the Avonmore catchment. The river is used by otter, feeding bats and a range of typical riparian bird species including kingfisher, dipper and grey wagtail. Goosander is one of the rarer breeding birds which uses the river for feeding. The presence of significant populations of salmon and sea lamprey (Annex II species in the EU Habitats Directive) makes this stretch of the river of national importance for biodiversity.

LBA 2. Woodland south of the railway station

This area contains some significant stands of mixed broadleaved/conifer woodland especially on the slopes leading down the Avonmore River. Oak and ash are dominant in places while sweet chestnut, larch and Scots pine also occur. There is a large plantation of western hemlock to the west of the railway line. This woodland is contiguous with the woodlands around Avondale House and is probably an important feeding area for the bats which roost at the house. There is evidence of deer movement along the river corridor within the woodland. Badger activity was noted in the fields immediately west of this woodland and it is likely that the area contains at least one badger sett. Typical woodland breeding birds are present and the area is a potential nesting site for buzzard and long-eared owl. This area is of high local value for biodiversity.

LBA 3. Woodland north of the railway station

This area contains two conifer plantations dominated by western hemlock. One of these is east of the railway line and the other to the north of the old vocational school building. The southern edge of the eastern plantation is bordered by a tributary of the Avonmore River which is fast flowing with riffles and cascades. On the eastern side of the road, north of the railway embankment is a band of deciduous woodland dominated by beech, ash, sycamore and oak, with an understorey of hazel and holly. This area contains a typical community of woodland breeding birds. This is bordered by an area of grassland on the river bank. West of the road the woodland is dominated by young sycamore and sweet chestnut. Laurel is present in this section of the woodland and threatens future regeneration of trees through shading. Between the bend of the road and the primary school there is a significant treeline of mature beech trees on the northern side of the road. These trees are all potential bat roosts. This area is of high local value for biodiversity.

LBA 4. Parnell Memorial Park

While the bulk of this area is amenity grassland, it contains a number of mature trees and is bisected by a small stream which has been impounded to form an artificial pond. There is a line of very large mature trees in private land along the north-east boundary of the park. The main mature trees are beech, sycamore, Scots pine, horse chestnut, ash, larch and a variety of conifers. Young trees of birch and rowan have been planted in the park. The flowing stream and pond surrounded by mature trees, makes this a valuable feeding area for bats and small birds. This area is of moderate local value for biodiversity.

LBA 5. Riverside ponds at holiday park

Two artificial ponds have been created with water supply from the Avonmore River which borders the site to the north, east and south. The ponds contain a variety of floating and submerged aquatic plants including pondweeds. There is relatively little marginal vegetation due to the steep sides of the ponds. An island in the larger southern pond is a valuable feature for nesting birds. Small numbers of water birds such as mallard and moorhen are likely to breed here and the habitat has potential for feeding by grey heron around the margins. The area is also likely to be used by feeding bats in the summer months and by otters which move along the river corridor. This area is of moderate local value for biodiversity.

2.6. Habitat Networks

One of the aims of this study was to identify where potential exists for habitat networks which link these Local Biodiversity Areas with nearby designated sites, in this way enhancing their overall biodiversity value. By definition such networks are linear features which may provide corridors or stepping stones for wildlife species moving within their normal range. They are particularly important for mammals (including bats) and small birds. A table of such habitat networks is given in Appendix 4 and these are described briefly below.

- A. **Avonmore River and banks:** The river is the most important habitat network in the study area, providing a link between the upper and lower parts of the catchment and an important corridor for movement of salmon, trout, lamprey, birds, bats and otter. It links the important woodland habitats in the Vale of Clara and at Avondale. The Eastern Regional Fisheries Board (ERFB) has serious concerns about the weir at Rathdrum which has no fish pass and may inhibit the upstream movement of fish, especially sea and river lamprey.
- B. **Tributary stream south of the town:** This stream has a small catchment area which is confined to the southern part of the town. It is also slightly polluted. It may have potential as a salmonid spawning area (this is to be confirmed by the ERFB). The stream flows through a stone culvert under the railway, which is a potentially suitable roost site for bats. The stream forms a link, between the Parnell Memorial Park, the woodland north of the station and the Avonmore River, which is probably used by birds, bats and otter.
- C. **Treelines south of the town:** These treelines form corridors of mature cover which link the Parnell Memorial Park with the countryside around Avondale House. They are probably used by bats from the roost in Avondale and by small birds and mammals.

- D. *Treeline south-east of the town:* This treeline forms a corridor of mature trees, including ash and oak, which links the Parnell Memorial Park with the woodland south of the railway station. It is probably used by small birds, bats and other mammals.
- E. *Treelines north of the town:* This network of hedgerows and treelines contains a mixture of deciduous trees including ash and oak. They link Ballygannon Wood (part of the Vale of Clara SAC) to the north of the town with the Avonmore River. They are probably used by small birds, bats and other mammals.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1. Conclusions

This study has identified a number of Local Biodiversity Areas within the town of Rathdrum which are not already protected under national or international legislation. It has also identified where potential exists for habitat networks which link these LBAs with each other and with nearby designated sites. The vulnerability of these areas and networks varies depending on the types of threat to the habitats concerned.

Rivers, streams and ponds are vulnerable to water pollution from both agricultural and domestic sources. Clearance of bankside vegetation and development along the banks can reduce the corridor value of the watercourses. Barriers, such as unsuitable culverts on streams or the weir on the Avonmore River, may inhibit the movement of fish. The pond in Parnell Park is subject to frequent herbicide treatment with potentially severe consequences for plant and animal communities within the pond and stream.

Woodlands are vulnerable to timber felling, to grazing by stock and to the invasion of non-native plants, such as laurel, which may prevent regeneration. Dumping of refuse is a localised problem close to roads.

Treelines and hedgerows are vulnerable to removal of mature trees and shrubs, thus reducing the corridor value which they have for wildlife. Significant treelines should be retained within future developments and afforded adequate protection during construction.

The Local Area Plan should contain a series of objectives to protect the nature conservation value of these areas and networks.

3.2. Proposed Natural Heritage Objectives

1. Protect the nature conservation value of any area identified as a Local Biodiversity Area or Habitat Network through planning conditions attached to future developments.

2. Protect the natural habitats within the corridor of the Avonmore River to maintain the link between the Vale of Clara to the north and Avondale/Avoca to the south.
3. Maintain good water quality in the Avonmore River and its tributaries as an essential prerequisite to enhancing the fisheries and biodiversity value of this important natural resource.
4. Consider partial removal of the weir at Rathdrum or installation of a fish pass to allow free passage of salmonid fish and lamprey to the upper catchment of the Avonmore River.
5. Protect key treelines and hedgerows to the north and south of the town as habitat networks linking small areas of woodland.
6. Consider designating significant mature trees or groups of trees, which are of either landscape or ecological value, under statutory Tree Preservation Orders.
7. Encourage developers to incorporate and enhance features of the natural environment such as streams, riverbanks, treelines and hedgerows within open space layouts and in the planning of future developments.
8. Consider the establishment of a way-marked walking route along the river corridor to link the existing footpaths in the Vale of Clara and Avondale, in cooperation with existing landowners.

4. REFERENCES

- Curtis, T.G.F. & McGough, H.N. (1988) *The Irish Red Data Book: 1 Vascular Plants*. Stationery Office. Dublin.
- Fossitt, J.A. (2000) *A Guide to Habitats in Ireland*. Heritage Council. Kilkenny.
- McConnell, B. (1994) *Geology of Kildare-Wicklow*. Geological Survey of Ireland. Dublin.

APPENDIX 1. SITE EVALUATION SCHEME

<i>Rating</i>	<i>Qualifying Criteria</i>
A	<p>Internationally important Sites designated (or qualifying for designation) as SAC* or SPA* under the EU Habitats or Birds Directives.</p> <p>Undesignated sites containing good examples of Annex I <u>priority</u> habitats under the EU Habitats Directive.</p> <p>Major salmon river fisheries.</p> <p>Major salmonid (salmon, trout or char) lake fisheries.</p>
B	<p>Nationally important Sites or waters designated or proposed as an NHA* or statutory Nature Reserves.</p> <p>Undesignated sites containing good examples of Annex I habitats (under EU Habitats Directive).</p> <p>Undesignated sites containing <u>significant numbers</u> of resident or regularly occurring populations of Annex II species under the EU Habitats Directive or Annex I species under the EU Birds Directive or species protected under the Wildlife (Amendment) Act 2000.</p> <p>Major trout river fisheries.</p> <p>Water bodies with major amenity fishery value.</p> <p>Commercially important coarse fisheries.</p>
C	<p>High value, locally important Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or significant populations of locally rare species.</p> <p>Small water bodies with known salmonid populations or with good potential salmonid habitat.</p> <p>Sites containing <u>any</u> resident or regularly occurring populations of Annex II species under the EU Habitats Directive or Annex I species under the EU Birds Directive.</p> <p>Large water bodies with some coarse fisheries value.</p>
D	<p>Moderate value, locally important Sites containing some semi-natural habitat or locally important for wildlife.</p> <p>Small water bodies with some coarse fisheries value or some potential salmonid habitat.</p> <p>Any water body with unpolluted water (Q-value rating 4-5).</p>
E	<p>Low value, locally important Artificial or highly modified habitats with low species diversity and low wildlife value.</p> <p>Water bodies with no current fisheries value and no significant potential fisheries value.</p>

*SAC = *Special Area of Conservation*

SPA= *Special Protection Area*

NHA= *Natural Heritage Area*

APPENDIX 2: SITE SYNOPSIS FOR DESIGNATED AREA

SITE NAME: Vale of Clara

SITE CODE: 000733

The Vale of Clara woodland, situated mostly on the east side of the Avonmore River, immediately north of Rathdrum, between 107 and 244 m above sea level, forms an integral part of one of the most scenic valleys in Wicklow. This wood is a remnant of the once extensive forests of east Wicklow, which may have occupied this site since the end of the last Ice Age. Unfortunately, the hardwoods have been replaced or underplanted with conifers since the 1940s, but now that most of the site is within the Vale of Clara Nature Reserve the future of the existing hardwoods is secure.

The woods are a mosaic of relatively pure Oak wood, mixed woodland and commercial plantations, growing on an acidic orange-brown, sandy loam over a schist bedrock. A distinct mor humus, often several centimetres thick, overlies the mineral soil.

The Oak woods are good examples of the species-poor *Blechno-Quercetum* vegetation community, a habitat listed on Annex I of the EU Habitats Directive, and are best developed in the Cronybyrne area. The understorey is mostly of Holly (*Ilex aquifolium*), Hazel (*Corylus avellana*) and Rowan (*Sorbus aucuparia*). The ground flora includes Great Wood-rush (*Luzula sylvatica*), Bilberry (*Vaccinium myrtillus*), Ivy (*Hedera helix*), Honeysuckle (*Lonicera periclymenum*), Wood-sorrel (*Oxalis acetosella*) and Violets (*Viola* spp.).

The areas of mixed woodland contain a variety of underplanted conifers, as well as Beech (*Fagus sylvatica*) and other introduced deciduous species. The planted conifer compartments are of a wide range of conifer species. An area of wet woodland is well developed near Ballyhad Bridge. The Avonmore River, which flows through the site, creates further habitat diversity.

Narrow-leaved Helleborine (*Cephalanthera longifolia*), a rare plant species which is listed in the Irish Red Data Book has been recorded from the locality, as has the scarce, Ivy-leaved Bellflower (*Wahlenbergia hederacea*). Several rare species of Myxomycete fungus have also been recorded from the site, namely *Cribraria rufa*, *Diderma floriforme*, *Stemonitis smithii* (only known Irish site) and *Trichia verrucosa* (in its only known Republic of Ireland site).

The woodland bird community includes the Jay, Long-eared Owl, Treecreeper, Woodcock and Blackcap. The Wood Warbler and Crossbill have also been recorded, while the Dipper and Grey Wagtail occur on the Avonmore River.

The Holly Blue (*Celastrina argiolus*) butterfly has been seen within the woods.

This site is a good example of what remains of the once extensive forests of east Wicklow, and is representative of the relatively dry, acid Oak woods of eastern Ireland. The woodlands are of considerable conservation significance as they conform to a type listed on Annex I of the EU Habitats Directive. The historical record of landuse within the woods adds to the interest of the site.

1.2.1999

Note: No site synopsis is available for Avondale House pNHA.

APPENDIX 3: SCHEDULE OF LOCAL BIODIVERSITY AREAS IN RATHDRUM AND ENVIRONS

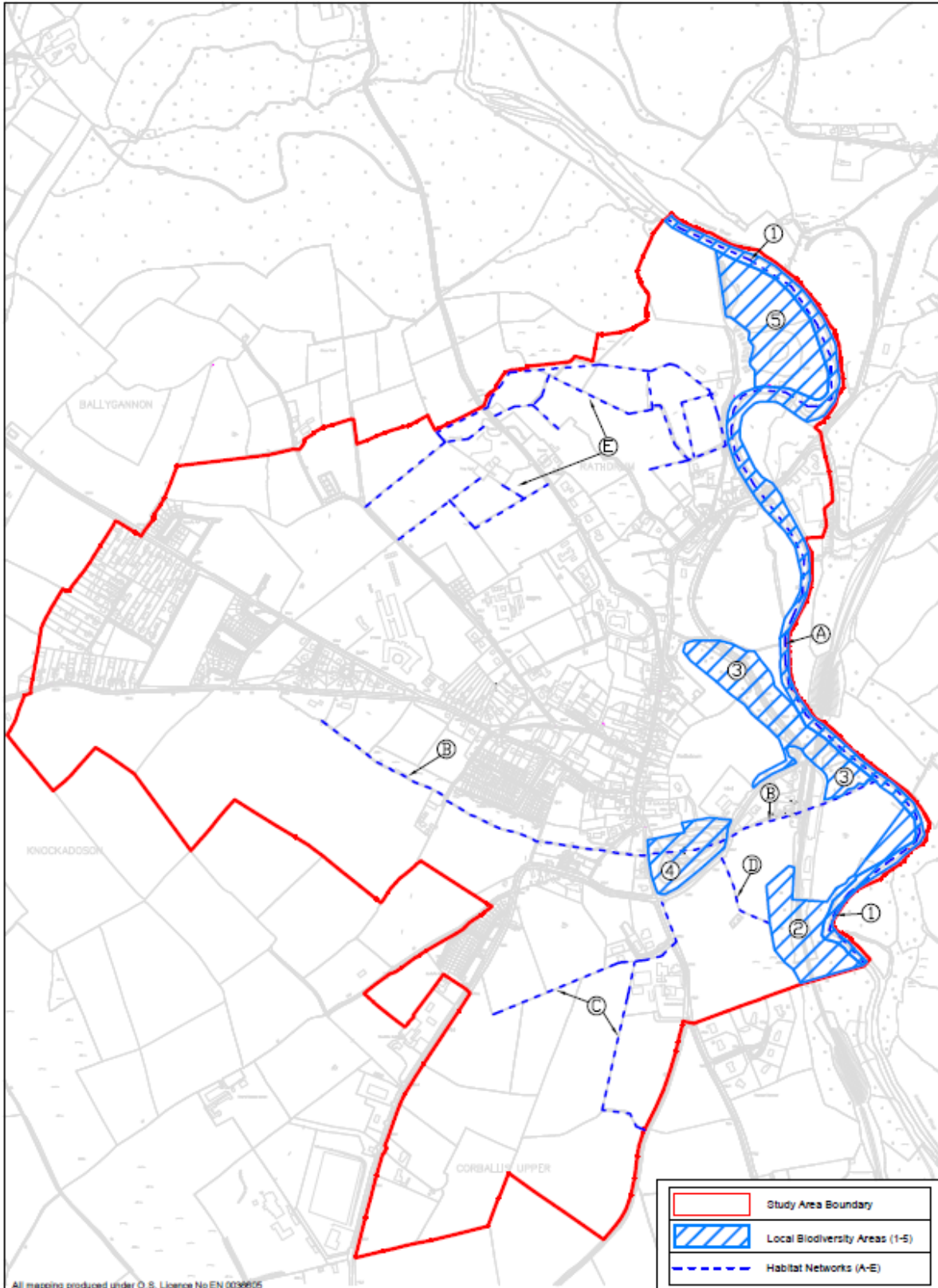
<i>Ref No.</i>	<i>Site name</i>	<i>Habitats present (Codes as in Fossitt 2000)</i>	<i>Species present or likely</i>	<i>Evaluation</i>	<i>Vulnerability (threats)</i>
1	Avonmore River and banks	FW2: Depositing lowland river WD2: Mixed broadleaved/conifer woodland	Birds including dipper, kingfisher and goosander. Bat species including Daubentons and pipistrelle Otter likely Salmon and trout passage Lamprey spawning area	B National	High: Water pollution Clearance of bankside vegetation Weir inhibits upstream movement of fish
2	Woodland south of railway station	WD2: Mixed broadleaved/conifer woodland WD4: Conifer plantation	Dominant trees ash, oak, sweet chestnut, Scots pine. Larch Western hemlock plantation Badger activity around western perimeter Potential bat roosts in older trees Possible deer activity along river corridor	C High local	Moderate: Dumping Grazing of stock
3	Woodland north of railway station	WD4: Conifer plantation WD2: Mixed broadleaved woodland FW2: Depositing lowland stream WL2: Treeline	Western hemlock in two plantations Dominant trees on east of road are beech, ash, sycamore, oak. West of road mainly young sycamore and sweet chestnut.. Treeline of mature beech on roadside leading up to primary school. Fringe of mature sycamore, horse chestnut, sweet chestnut and beech at northern end. Stream at southern end. Possible deer activity along river corridor Potential bat roosts in older trees. Culvert under railway may contain bat roost.	C High local	Moderate: Introduced laurel will shade out regenerating trees. Felling of trees for road widening. Harvesting of conifers may reduce wildlife value of area

RATHDRUM LOCAL AREA PLAN: LOCAL BIODIVERSITY AREAS

Ref No.	Site name	Habitats present (Codes as in Fossitt 2000)	Species present or likely	Evaluation	Vulnerability (threats)
4	Parnell Memorial Park	GA2: Amenity Grassland WD5: Scattered trees and parkland FW2: Depositing lowland stream WL2: Treelines	Mature trees: beech, sycamore, Scots pine, horse chestnut, ash, larch. Feeding area for bats. Likely breeding habitat for grey wagtail May contain trout.	D Moderate local	Moderate Water pollution in stream. Felling of mature trees on boundary Herbicide use close to watercourse is potentially toxic to freshwater life.
5	Riverside ponds at holiday park	FL8: Artificial ponds and lakes GS1: Dry neutral grassland	Two ponds with water supply from Avonmore River. Artificial island in larger pond. Floating and submerged aquatic plants. Some marginal vegetation. Feeding area for bats and otter. Breeding area for water birds such as moorhen and mallard.	D Moderate local	Moderate Water pollution from adjacent developments

APPENDIX 4: SCHEDULE OF HABITAT NETWORKS IN RATHDRUM AND ENVIRONS

<i>Ref No.</i>	<i>Site name</i>	<i>Habitats present (Codes as in Fossitt 2000)</i>	<i>Species likely to use habitat networks</i>	<i>Linkages</i>	<i>Vulnerability (threats)</i>
A	Avonmore River and banks	FW2: Depositing lowland river	Typical riparian birds. Bat species Otter Salmon and trout passage	Major corridor for wild fauna and flora. Links upper river catchment with lower more mature river valley. Links woodlands at Vale of Clara with Avondale House woodlands	High: Water pollution Clearance of bankside vegetation Weir inhibits upstream movement of fish
B	Tributary stream south of town	FW2: Depositing lowland stream	Typical riparian birds. Bat species Otter Salmon and trout passage	Links Parnell Memorial Park (LBA 4) and small area of gorse scrub to woodland north of railway station (LBA 3) and Avonmore River (LBA 1).	High: Water pollution Clearance of bankside vegetation
C	Treelines south of town	WL2: Treelines	Treelines with predominantly mature Scots pine. Likely to be used by bats and small birds	Links Parnell Memorial Park (LBA 4) to Avondale House and surrounding countryside	Moderate: Partly within area zoned for industrial and commercial use. Treelines should be retained within future development.
D	Treeline south-east of town	WL2: Treeline	Treeline with a mixture of deciduous trees including ash and oak. Likely to be used by bats, badgers and small birds	Links Parnell Memorial Park (LBA 4) to Woodland south of railway station (LBA 2)	Low: Currently agricultural. Treelines should be retained within future development.
E	Treelines north of town	WL2: Treelines	Network of treelines with a mixture of deciduous trees including ash and oak. Likely to be used by bats, badgers and small birds.	Link Ballygannon Wood (part of Vale of Clara SAC) to north of town with Avonmore river east of town.	Low: Currently agricultural. Treelines should be retained within future development.



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Local Biodiversity Areas
 and Habitat Networks

Rathdrum Local Area Plan	
Drawn by: MH	Project no: 1315
Checked: RN	Scale: 7500
Sheet no: 1 of 1	Date: 24.01.2008 Rev: