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1. Green Infrastructure Data Sources

In the creation of Green Infrastructure mapping, regard was had to the following sources of information:

Tailte Éireann Prime 2 Mapping:

WATER_LINE

WATER_SINGLE_STREAM_LINE

WATER POLY

VEGETATION_POLY (FUNC_ID = Managed Woodland)

VEGETATION_POLY (FUNC_ID = Unmanaged Woodland)

VEGETATION_POLY (FUNC_ID = Green Space)

VEGETATION_POLY (FUNC_ID = Cemetery)

VEGETATION_POLY (FUNC_ID = Graveyard)

EPA OGC Web Mapping Service:

River Waterbodies

National Parks & Wildlife Service OGC Web Map Service:

Special Protection Area (SPA)
Proposed Natural Heritage Area (pNHA)

Bluesky Mapping:

National Tree Map

WCC Datasets:

Local Biodiversity Areas¹

Historical Mapping & Aerial Imagery:

Geohive.ie

Google Earth

Google Maps

Environmental Impact Assessment Reports, Natura Impact Assessment Reports (Appropriate Assessment), Ecological Assessments and Other Assessments of recent and historical planning applications, as relevant.

Site Visits

Blessington Local Area Plan 2013 – existing zonings

¹ In 2006, a report by Natura Environmental Consultants was prepared in advance of the preparation of a local area plan at that time. This provided baseline information that remains worthy of consideration to this day. This report is available on wicklow.ie

2. Approach to Green Infrastructure in Blessington

Chapter 18 of the Wicklow County Development Plan 2022-2028 sets out the policies and objectives applicable to Blessington with regard to Green Infrastructure.

It states that Green Infrastructure (GI) can be broadly defined as 'an interconnected network of green space that conserves natural ecosystem values and functions and provides associated benefits to human populations. Green Infrastructure is the ecological framework needed for environmental, social and economic sustainability – in short it is a nation's natural life sustaining system'.

Green Infrastructure can include varying land uses - pasture lands, croplands, woodlands, heath, bog, scrubland, quarries, parks, formal and informal green spaces, active and passive spaces, areas around domestic and non-domestic buildings, brownfield areas, waterways, waterbodies, waterway corridors, wetlands, coastal areas and community/institutional lands such as hospitals, schools, graveyards, allotments and community gardens. Heritage sites, European sites and NHAs are also important GI sites.

Specifically County Policy Objective 18.5 states that it is an objective of Wicklow County Council:

'To identify and facilitate the provision of linkages along and between green / river corridors within the county and adjoining counties to create inter connected routes, and develop riverside parks and create linkages between them to form 'necklace' effect routes including development of walkways, cycleways, bridleways and wildlife corridors where feasible and ensuring that there is no adverse impact (directly, indirectly or cumulatively) on the conservation objectives of European sites.'

Therefore, in the creation of Green Infrastructure mapping for Blessington, primarily watercourse-based green corridors were identified to form the core of ecological corridors in the area. Other areas of potential biodiversity value were also identified, and thereafter potential linkages between same were evaluated in order to connect the individual sites into a coherent, interlinked network of ecological corridors and 'necklace' effect routes.

In the identification of watercourse-based green corridors, particular regard has been had to CPO 17.26 of the Wicklow County Development Plan, which requires a 25m riparian buffer zone along watercourses in line with guidance issued by Inland Fisheries Ireland.

Other areas of value that have been included as sites in the ecological corridor network have been informed by the Wicklow County Development Plan 2022-2028, with a particular focus on the County Policy Objectives set out in Chapter 17 'Natural Heritage & Biodiversity', combined with the data sources listed above. Such sites could include:

- Significant existing areas of forestry or woodland, as identified by GIS mapping, aerial imagery or visual inspection.
- Areas identified as Local Biodiversity Areas in previous studies.
- European sites (SACs, SPAs) and land with high ecological connectivity to such, i.e. lands in close proximity and visibility.
- Other protected sites, e.g. NHAs or pNHAs, and land with high ecological connectivity to such, i.e. lands in close proximity and visibility.
- Existing hedgerows, linear tree stands, and 'stepping stone' areas that provide connectivity between sites.
- Where relevant, existing 'green' land use zonings as per the Blessington Local Area Plan 2013 notably, the continuance of the approach of a buffer from the Poulaphouca Reservoir, which has been applied to the pNHA and SPA going forward, following the greater extent of the two protected sites where they overlap.

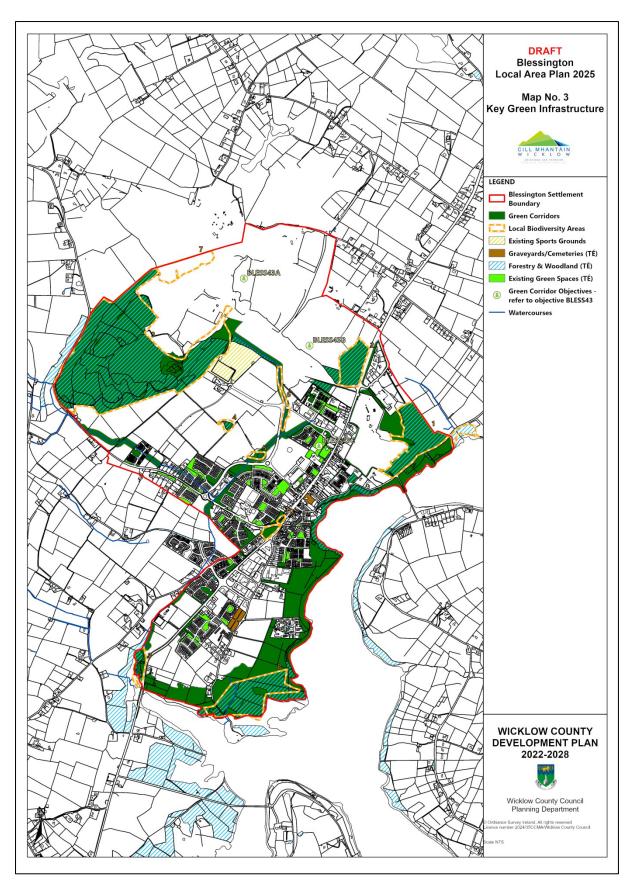
The resultant **Key Green Infrastructure Map No. 3** (see below) includes a series of interconnected ecological corridors.

Note that the inclusion or exclusion of individual hedgerows/linear tree stands does not speak to the biodiversity value, or lack thereof, or any individual such feature. Rather, it indicates hedgerows/linear tree stands of particular relevance for connectivity between larger sites of ecological importance.

Other non-contiguous features have been included in the Key Green Infrastructure Map. Such standalone features (which could include residential open space and other open areas of appropriate land cover) could act as important 'stepping stones' between different branches of ecological corridors.

While existing roadways do cross the identified ecological corridors, some level of permeability may be possible through culverts. As such, ecological corridors have been mapped as crossing roadways. Where permeability is poor, e.g. narrow, long sections of pipe culverts, it is recommended that objectives be included in the Blessington Local Area Plan to require significant road improvements to ameliorate / improve culverts to more permeable features. Such features could include box culverts with wildlife ledges, or indeed clear-span bridges in place of culverts, etc.

While the Key Green Infrastructure Map is not intended as a land use map (see below), it is recommended that written and land use zoning objectives be included in the new Blessington Local Area Plan to ensure the maintenance of the biodiversity value and ecological connectivity of identified (or otherwise) Green Infrastructure assets.



MAP No. 3: Blessington Key Green Infrastructure

3. Approach to Green Infrastructure & Land Use Zoning in Blessington

Key Green Infrastructure Map No. 3 indicates Green Infrastructure Assets regardless of the land use zoning of the assets in question.

In some cases, it may be worth zoning areas of land for a land use that would ensure the protection of such GI assets, e.g. OS2 'Natural Areas', while in other cases it may be too prescriptive or unwieldy to identify and 'zone' accordingly all GI assets on a land use map.

It is proposed to transpose GI green corridor assets as necessary into land use zoning objectives utilising the following approach:

- 25m riparian buffer zones on both sides of a watercourse, where largely undeveloped, will generally be specifically protected via an appropriate 'open space' land use zoning objective, as per CPO 17.26 of the Wicklow County Development Plan 2022-2028.
- Defined European, or other, protected sites will not be zoned
- Necessary buffers around defined European, or other, protected sites, will generally be protected via an appropriate 'open space' land use zoning objective.
- Significant areas of existing woodland/forestry will, where deemed necessary, generally be protected via an appropriate 'open space' land use zoning objective, as per CPO 17.18-17.23 of the Wicklow County Development Plan 2022-2028.
- Hedgerows and linear tree stands will generally **not** be protected via land use zoning objectives but will rather be protected via the development management process.
- GI assets that form part of existing permitted open spaces, e.g. the permitted public open space for a residential development that would usually be zoned RE 'Existing Residential' in previous local area plans, will generally be specifically protected via an appropriate 'open space' land use zoning objective.
- GI assets that form part of other existing permitted developments, will be included or excluded
 as land use zoning objectives on a case-by-case basis. Where not included, they can be
 protected as needed through the development management process.

Those assets identified as warranting protection via an appropriate land use zoning objective may have a variety of specific land use zoning objectives assigned to them. A precautionary approach will generally be followed, where land use zonings will be considered in the following order of preference: OS2 'Natural Areas' zoning objectives as a first preference, followed by a preference for OS1 'Open Space' or AOS 'Active Open Space' zoning objectives, followed by zoning objectives that could involve the substantial development of structures on the land. Where there may be ambiguity about the level of development possible on a GI asset while maintaining its essential biodiversity and ecological connectivity functions, input from WCC Heritage/Biodiversity Officers may be sought.

Note that this document addresses lands zoned for reasons of green infrastructure/ecological connectivity/biodiversity only, and does not preclude the planning authority from zoning other lands as OS2 'Natural Areas', OS1 'Open Space', AOS 'Active Open Space', etc., as deemed appropriate.

The objective and description of various 'open space' land use zoning objectives within the plan area are as follows:

AOS: Active Open Space	To protect and enhance existing and provide for new active open space	Subject to the protection and enhancement of natural biodiversity, to facilitate the further development and improvement of existing active open spaces, formal exercise areas, sports grounds, playing pitches, courts and other games areas and to facilitate opportunities for the development of new high quality active recreational areas.
OS1: Open Space	To protect and enhance existing and provide for recreational open space	Subject to the protection and enhancement of natural biodiversity, to facilitate the further development and improvement of existing parks and casual play areas, to facilitate opportunities for the development of new high quality amenity open areas and to restrict developments / activities (such as the use or development of such lands for formal sports grounds for organisations that are not available for a broad range of the public) that would reduce the opportunities for use by the wider public.
OS2: Natural Areas	To protect and enhance existing open, undeveloped lands	To protect, enhance and manage existing open, undeveloped lands that comprise flood plains, buffer zones along watercourses and rivers, steep banks, green breaks between built up areas, green corridors and areas of natural biodiversity.

Uses appropriate for **active open space (AOS)** zoned land are sport and active recreational uses including infrastructure and buildings associated with same. Schools are appropriate.

Uses appropriate for **open space (OS1)** zoned land are recreational uses such as formal / informal landscaped parks with off-road walking / cycling paths, as well as playgrounds, skate parks, Mixed Use Games Areas and outdoor gyms.

Uses appropriate for **natural areas (OS2)** zoned land are uses that protect and enhance the function of these areas as flood plains, buffer zones along watercourses and rivers, green breaks between built up areas, green corridors and areas of natural biodiversity. The development of these lands for recreational uses may only be considered where such use is shown to not undermine the purpose of this zoning.

All of the above land use zonings would facilitate elements to protect and improve biodiversity, e.g. pollinator friendly planting opportunities, and would generally consist of open lands conducive to the movement of fauna. The primary differentiation between the land use zoning would be the intensity of use by humans and the likelihood of significant levels of lighting being required, generally increasing as the land use changes from OS2 'Natural Areas' to OS1 'Open Space', and on to AOS 'Active Open Space'.

Albeit the majority of all other land use zonings facilitate the physical development of the lands, the Wicklow County Development Plan 2022-2028 has a number of objectives to protect/enhance the GI

assets on all sites where development is proposed, e.g. as set out in Chapter 17 'Natural Heritage and Biodiversity', Chapter 18 'Green Infrastructure', or Appendix 1 'Development and Design Standards'

4. Identification of Green Infrastructure Land Use Zoning in Blessington

Note that the below assessment has considered areas within the settlement boundary as set out in the Blessington Local Area Plan 2013. This boundary may be subject to change, such that some areas may no longer be within a revised local area plan boundary.

Location	Glen Ding Woods
Description	Wooded area to the west of Blessington, encompassing Glen Ding, Rath Turtle Moat and extending into quarry lands to the north. Indicated as a Local Biodiversity Area.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013
Inter N cord	(ii) (iii) (iv)
	GD-CZ 'Glen Ding Conservation and Heritage Zone', with areas of EX 'Extractive Industry' to the north.
Reasons for inclusion as land use zoning include	Existing areas of woodland forestry CPOs 17.18-17.23, previous zoning under Blessington LAP 2013, Local Biodiversity Area. Note that spurs of the co-located Local Biodiversity Area extending from the northwest and south east of the GI Asset appear from aerial imagery to be no longer under woodland cover and have not been

Recommendation for the New Local Area Plan

Site (i): Zone all lands identified as a GI asset as OS2 'Natural Areas' or maintain as GD-CZ 'Glen Ding Conservation and Heritage Zone'.

included.

Site (ii): Located within boundary of a permitted quarry under WCC Reg. Ref. 99/410. However, site (ii) was not within the permitted 'extractive area' under that permission and as such was not subject to quarrying operations and is under tree cover. On that basis, site (ii) should be zoned from EX 'Extractive Industry' to either OS2 'Natural Area' or GD-CZ 'Glen Ding Conservation and Heritage Zone'.

Site (iii): Located within the boundary of a permitted quarry under WCC Reg. Ref. 99/410, and

indicated as being within the 'extractive area'. On the basis of the previous quarrying operations on the site and the varied stages of restoration ongoing across the wider landholding, site (iii) should be maintained as EX 'Extractive Industry'.

Site (iv): Located within the boundary of a permitted quarry under WCC Reg. Ref. 69/3014. Parts of this site are indicated as being within the 'extractive area', while other parts are not so indicated. On the basis of the previous quarrying operations and the varied stages of restoration ongoing across the wider landholding, site (iv) as within the 'extractive area' should be maintained as EX 'Extractive Industry', while those areas of site (iv) outside the 'extractive area' should be zoned from EX 'Extractive Industry' to OS2 'Natural Areas'.

Site (v): The majority of this site does not appear to be located within the boundaries of either permitted or pre-1964 quarrying operations. It is under tree cover and provides ecological connectivity between Glen Ding and the Deerpark watercourse. On this basis, site (v) should be zoned from EX 'Extractive Industry' to OS2 'Natural Areas'.

Those elements of the GI asset that are zoned EX 'Extractive Industry' can be protected via the development management process.

Location	Deerpark Watercourse (North)
Description	Watercourse and riparian buffer from Glen Ding Woods along boundary of GAA grounds towards BIRR
Map of GI Asset	Land Use Zoning: Blessington LAP 2013
	OS 'Open Space' along watercourse, with areas of R1 'New Residential' and E 'Employment'

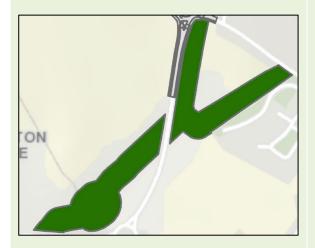
Watercourse 25m riparian buffer zone CPO 17.26

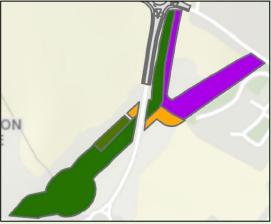
Recommendation for the New Local Area Plan

Reasons for inclusion as land use zoning

include

Location	Deerpark Watercourse (Centre)
Description	Watercourse and riparian buffer along BIRR, with small tributary from the north east rising from
	Blessington Industrial Estate. The area of the new town park in which this GI asset is located is currently under construction.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013





Reasons for inclusion as land use zoning include

OS 'Open Space', with areas of AOS 'Active Open Space', R1 'New Residential', and E 'Employment'. Watercourse 25m riparian buffer zone CPO 17.26

Recommendation for the New Local Area Plan

That area of the GI asset currently under construction as the new town park shall maintain an OS1 'Open Space', with the GI asset to be protected at development management stage.

Location	Deerpark Watercourse (South) – does not include
	area to west of indicated orange line.
Description	Watercourse and riparian buffer south from BIRR,
	passes through residential open space (to east
	and south west) and permitted attenuation area
	(to north west inside BIRR) before being
	culverted shortly before reaching Naas Road.
	Emerges as open watercourse south of Naas
	Road and continues to border with Co. Kildare.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013





OS 'Open Space', with areas of RE 'Existing Residential' and NC 'Neighbourhood Centre'.

Reasons for inclusion as land use zoning include

Watercourse 25m riparian buffer zone CPO 17.26

Recommendation for the New Local Area Plan

Zone all lands identified as a GI asset as OS2 'Natural Areas'.

Note that some data sources indicate that the newtown little watercourse directly enters the deerpark watercourse at this location, to the immediate south of the Naas Road (see corridor west of blue line below). Other data sources do not indicate the newtown little watercourse at this location. Studies prepared under the CFRAM programme state the newtown little watercourse enters a pond upstream from this point, with no visible channel or pipe coming out of the pond. As the exact path of the watercourse at this location is uncertain, it will not be included as a land use zoning. However it will be included as a green corridor in Green Infrastructure mapping that can be further assessed at development management stage.

Additional green corridor of possible newtown little watercourse (west of blue line):



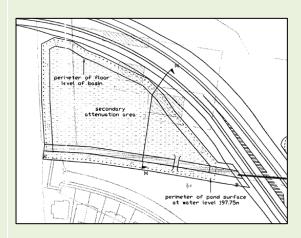
Location	Deerpark Secondary Attenuation Area – area to	
	west of indicated orange line.	
Description	Permitted secondary attenuation area under	
	WCC Reg. Ref. 00/3687 immediately adjacent to	
	deerpark watercourse and riparian buffer. The	
	site contains multiple mature trees interspersed	
	through 'overgrown'/coarse grassland.	
Map of GI Asset	Land Use Zoning: Blessington LAP 2013	





OS 'Open Space', with areas of RE 'Existing Residential' and NC 'Neighbourhood Centre'.

Layout of secondary attenuation area under WCC Reg. Ref. 00/3687:



Reasons for inclusion as land use zoning include

Existing areas of woodland forestry CPOs 17.18-17.23; Permitted use of the lands as attenuation basin; current 'overgrown' condition.

Recommendation for the New Local Area Plan

Report of WCC Biodiversity Officer:

'This area is sheltered, adjacent to a watercourse in good condition, and contains a diversity of habitat types. Combined with low levels disturbance (light, footfall etc.), and the climate resilience if affords through its attenuation function, this area has high potential and realised biodiversity potential.

There are mature ash Fraxinus excelsior² and one stand-alone lime Tilia cordata tree on the northern of the area, and these together with a parallel line of hawthorn Crataegus monogyna, elder Sambucus nigra, and willow Salix spp form a natural corridor, through and which likely constitutes a feeding resource area for bats. The area is overgrown with nettle Urtica dioica, bramble Rubus fructicosus and cleavers Galium aparine and may be developed as a footpath, to connect with a path across the main road. If so, the addition of lighting should be avoided³.

To the south of this an area of rough grassland is bordered by the riparian zone to the west, with a hedgerow made up of predominantly ash, sycamore Acer pseudoplatanus and scrub, but with several young elm Ulmus glabra trees which appear to be attempting to re-colonise the site. Ash trees are also self-seeding throughout the open area particular along the eastern boundary, where there are also young self-seeded oaks Quercus robur.

The hedgerows and riparian zone provide excellent cover and food resources for birds, small mammals, amphibians and invertebrates. The open grassland contains a good mix of grasses and wild flowers, including buttercup Ranunculus spp., bush vetch Vicia sepium, hogweed Heracleum sphondylium, herb robert Geranium roberianum, ragwort Jacobaea vulgaris, giant willowherb Epilobium hirsutum. All of these are good for pollinators and other invertebrates, and several species of butterfly and moths were observed. The grassland also functions as a foraging area for birds (only wood pigeon and jackdaw observed) and undoubtedly supports small mammals and frogs, which in turn are prey for raptors

The species and habitat diversity supported by this area, and its secluded nature, allow it to function as a biodiversity refuge and stepping stone.'

² Affected by ash dieback disease, but still provided ecological value.

³ Use Dark Sky Ireland's Environmentally Friendly Lighting Guide 2024



Image 1 Young Elm trees recolonising area

Could the subject lands be developed (in whole or in part) for the purposes of substantial numbers of structures, hard surfacing, etc. without comprising its essential biodiversity quality and ecological function/connectivity?	Such uses would be considered inappropriate
Could the subject lands be developed (in whole or in part) for the purposes of playing pitches, flood lighting, changing facilities, etc. without comprising its essential biodiversity quality and ecological function/connectivity?	Such uses would be considered inappropriate
Could the subject lands be developed (in whole or in part) for the purposes of landscaped public parks, seating areas, walkways, etc. without comprising its essential biodiversity quality and ecological function/connectivity?	Such uses would be considered inappropriate
Could the subject lands be developed (in whole or in part) for the purposes of low impact tourist accommodation, e.g. aires/campervan parking on minimal hard standing, campsites, sanitary and service facilities, play areas, low-level path lighting, etc. without comprising its essential biodiversity quality and ecological function/connectivity?	Such uses would be considered inappropriate

On the basis of the report of the WCC Biodiversity Officer and the above reasons for inclusion as a land use zoning, zone all lands identified as a GI asset as OS2 'Passive Open Space'.

Location	Bastion Wood
Description	Landmark group of mature trees adjoining the
	western boundary of the new town park.
	Indicated as a Local Biodiversity Area.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013





E 'Employment', with a small area of OS 'Open Space' along the boundary with the new town park.

Reasons for inclusion as land use zoning include

Existing areas of woodland/forestry CPOs 17.18-17.23, Local Biodiversity Area

Recommendation for the New Local Area Plan

Location	Glen Ding/Newtown Park Watercourse
Description	Watercourse and riparian zoned flowing through agricultural lands along Naas Road before being culverted shortly before Glen Ding estate. Flows through culvert through undeveloped lands to the east of Glen Ding estate before passing through Deerpark estate and joining the Deerpark Watercourse just north of Naas Road. Possible potential for restoration of open watercourses where culvert passes through undeveloped lands.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013





AG 'Agricultural Lands', with areas of AOS 'Active Open Space' and RE 'Existing Residential'.

Reasons for inclusion as land use zoning include

Watercourse 25m riparian buffer zone CPO 17.26 $\,$

Recommendation for the New Local Area Plan

Location	Deerpark Watercourse (Burgage)
Description	Watercourse and riparian zone flowing along county boundary. Passes behind existing
	residential areas and Blessington WWTP along its southern boundary
Map of GI Asset	Land Use Zoning: Blessington LAP 2013





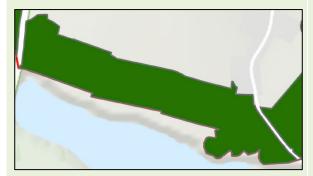
AG 'Agricultural Lands', with areas of OS 'Open Space', CE 'Community & Education', E 'Employment', and RE 'Existing Residential'.

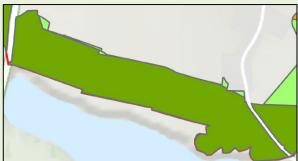
Reasons for inclusion as land use zoning include

Watercourse 25m riparian buffer zone CPO 17.26

Recommendation for the New Local Area Plan

Location	Lakeshore (N81 to lane at Burgage More)
Description	Section of Lakeshore buffer stretching from the
	N81 along towards the roadway along Burgage
	More.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013





AG 'Agricultural Lands' and Reservoir c. 100m Buffer/Conservation Zone

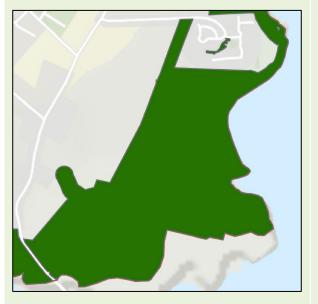
Reasons for inclusion as land use zoning include

100m buffer from Poulaphouca Reservoir pNHA, as a continuation of the approach in Blessington LAP 2013

Recommendation for the New Local Area Plan

The assessment of the site to the east (see immediately below) indicates that a low-lying area generally below the 194m contour is worthy of protection. This contour and low lying area passes through this area and is generally encompassed the previous 100m buffer, but in some areas this previous buffer does not extend far enough to cover the low-lying area. On this basis, zone all lands within the 100m buffer and, where relevant, below the 194m contour in this area as OS2 'Natural Areas'.

Location	Lakeshore (Lane at Burgage More to the Avon)
Description	Wide area around border of SPA/pNHA
	consisting of areas of existing forestry
	watercourses with riparian zones and low lying
	land with visibility to Reservoir.
Man of GLAsset	Land Use Zoning: Blessington LAP 2013







100m buffer from Poulaphouca Reservoir pNHA, as continuation of approach in Blessington LAP 2013; Watercourse 25m riparian buffer zone CPO 17.26; Existing areas of woodland/forestry CPOs 17.18-17.23; Lands with high visibility to Poulaphouca Reservoir SPA.

Recommendation for the New Local Area Plan

<u>Lands corresponding to watercourse and riparian zone, existing woodland/forestry, 100m buffer from Poulaphouca Reservoir pNHA:</u>

Zone all lands identified, for the above reasons, as a GI asset OS2 'Natural Areas'

Lands outside of the above with high visibility and proximity to Poulaphouca Reservoir SPA:

Report of WCC Biodiversity Officer:

'This area is predominantly comprised of improved grassland enclosed within mature/ancient hedgerows, which have escaped (i.e. become tree lines) primarily of hawthorn Crataegus monogyna and ash Fraxinus excelsior.

The adjacent Poulaphouca Reservoir is of international importance for its Greylag Goose population, for which it is designated an SPA. The birds feed on improved grassland areas outside the SPA boundaries and, to date, records of foraging birds are concentrated around northern portion of the reservoir at Threecastles, and not in the area in question. Nevertheless, these grassland areas may provide foraging opportunities for other wetland birds, such as lapwing and curlew, and may also offer reliance as habitat use changes in response to climate change.

These mature tree lines throughout this area have high ecological value as navigation aids, movement corridors and for the provision of nest sites, shelter and foraging resources. Their maturity adds further to their value in this regard and they are likely utilised by a wide range of taxa including invertebrates, birds, bats and ground mammals. Unfortunately most of the ash trees are likely to be affected by and eventually succumb to ash dieback disease, but such mature trees will take a considerable amount of time to decline and die, and during this period they play an important ecological role as dying and subsequently dead wood. Where safety is not an issue, affected trees should be left in situ.

If this area is developed further, provision could be made to carry out supplementary planting within hedgerows to ensure they retain their form and function into the future. Tree planting could also be extended out from boundary areas to create linear woodland areas as the site is well positioned for woodland creation, which would further screen the Poulaphouca Reservoir SPA and the greenway.

To the east of this area, the land become wetter as it slopes down toward the reservoir, and is bisected by a watercourse. This creates wet grassland interspersed with wet Willow-Alder-Ash woodland, and the convergence of multiple habitat types into a diverse mosaic increases the ecological value of the wider area.

The development of the greenway adjacent to the reservoir is likely to cause increased footfall and may heighten disturbance to wildlife. Further increasing the buffer around the SPA (>100m) will help to provide undisturbed habitat and may mitigate the disturbance caused by increased usage.

If the land is being developed for AOS hedgerows must be retained and due consideration must be given the design of an appropriate lighting scheme, to minimise disturbance for bats. Replacement planting for trees lost due to ash dieback should also be considered under any planned development.'

Could the subject lands be developed (in whole or in part) for the purposes of substantial numbers of structures, hard surfacing, etc. without comprising its essential biodiversity quality and ecological function/connectivity?

Such uses would be considered appropriate, subject to:

- Limitation on the size of development versus retained green space
- Grazing regime maintained
- Ecological survey of site for use by wetland birds, bats and other mammals (pine marten, badger)
- Connectivity must be fully retained (corridors through any physical barriers)
- Lighting must be bat friendly as per Dark Sky quidelines
- Mature trees retained
- Compensatory tree planting programme for ash tree lost due to die-back
- Biodiversity plan developed (for example, ponds, pollinator friendly planting)

Could the subject lands be developed (in whole or in part) for the purposes of playing pitches, flood lighting, changing facilities, etc. without comprising its essential biodiversity

Such uses would be considered inappropriate (flood lighting)

quality and ecological function (connectivity)	
quality and ecological function/connectivity? Could the subject lands be developed (in	Such uses would be considered appropriate
,	
whole or in part) for the purposes of	
landscaped public parks, seating areas,	
walkways, etc. without comprising its	The state of the s
essential biodiversity quality and ecological function/connectivity?	 Ecological survey of site for use by wetland birds, bats and other mammals
	(pine marten, badger)
	 Connectivity must be fully retained
	(corridors through any physical barriers)
	• Lighting must be bat friendly as per
	Dark Sky guidelines
	Facility must be closed to public at dusk
	Mature trees retained
	Compensatory tree planting programme
	for ash tree lost due to die-back
Could the subject lands be developed (in	
whole or in part) for the purposes of low	
impact tourist accommodation, e.g.	• Limitation on the size of development
aires/campervan parking on minimal hard	
standing, campsites, sanitary and service	——————————————————————————————————————
facilities, play areas, low-level path lighting,	
etc. without comprising its essential	
biodiversity quality and ecological	
function/connectivity?	 Connectivity must be fully retained
,,	(corridors through any physical barriers)
	• Lighting must be bat friendly as per
	Dark Sky guidelines
	Mature trees retained
	Compensatory tree planting programme
	for ash tree lost due to die-back
	Biodiversity plan developed (for
	example, ponds, pollinator friendly
	planting)

On this basis of the above reasons for inclusion as a land use zoning, and the report of the WCC Biodiversity Officer, zone the identified low lying area to the east of the site as OS2 'Natural Areas'. Zone the remainder of the site with a variety of land use zonings (e.g. MU, RN1, etc.) as required, with the inclusion of a range of appropriate mitigation measures via general or specific objective in the written statement of the local area plan. The boundary between the OS2 area and the remainder of the site will be generally along the 194m contour, although in some cases around the southern boundary of the Avon resort the boundary is more accurately represented by the 195m and 196m contours.

Location	Woodland within the Avon
Description	Small group of trees within the grounds of the Avon
Map of GI Asset	Land Use Zoning: Blessington LAP 2013





T 'Tourism'.

Reasons for inclusion as land use zoning include

Existing areas of woodland/forestry CPOs 17.18-17.23

Recommendation for the New Local Area Plan

On the basis of the size of the existing woodland, it is recommended to maintain the existing zoning of T 'Tourism'. The GI asset in question can be protected at development management stage through the application of the objectives and development standards of the Wicklow County Development Plan and Blessington Local Area Plan.

Location

Description

Lakeshore (the Avon to Kilbride Road)

Wide area around lakeshore from the Avon to Kilbride Road. Includes sections of existing woodland/forestry along narrow laneways (currently zoned RE & E) between Troopersfield Road and lands currently zoned AOS. Includes low lying lands with high visibility and proximity to Poulaphoua Reservoir SPA.

Map of GI Asset

Land Use Zoning: Blessington LAP 2013





AG 'Agricultural Lands', Reservoir c. 100m buffer/conservation zone, RE 'Existing Residential', E 'Employment', AOS 'Active Open Space'

Reasons for inclusion as land use zoning include

100m buffer from Poulaphouca Reservoir pNHA, as a continuation of the approach in Blessington LAP 2013; Existing areas of woodland/forestry CPOs 17.18-17.23; Lands with high visibility to Poulaphouca Reservoir SPA.

Recommendation for the new Local Area Plan

Lands corresponding to existing areas of forestry/woodland:

Zone lands identified, for the above reasons, as a GI asset OS2 'Natural Areas'

Lands outside of the above with high visibility and proximity to Poulaphouca Reservoir SPA:

Report of WCC Biodiversity Officer:

This area is predominantly improved grassland, with mature hedgerows dominated by hawthorn Crataegus monogyna and ash Fraxinus excelsior and other native tree species. These hedgerows are important ecological features, used as for shelter, feeding resources, and as navigation aids by multiple taxa including bat, birds and small mammals.

The grassland is outside the known foraging area of the Greylag Goose but it is adjacent to the 100m buffer delineated for ecological consideration around the SPA. Increasing the width of this buffer serves to further strengthen the resilience of the ecological features that have been identified for protection, by buffering them from adverse impacts such as disturbance, and potentially providing alternative foraging habitat.

To the east of this area are a variety of semi-natural woodland (Willow Salix spp. and Alder Alnus glutinosa, wetland and scrub habitats which have a high local conservation and function as wildlife refuge in the otherwise intensively farmed or forested land.'

Could the subject lands be developed (in whole or in part) for the purposes of substantial numbers of structures, hard surfacing, etc. without comprising its essential biodiversity quality and ecological function/connectivity?

Such uses would be considered appropriate, subject to:

- Limitation on the size of development versus retained green space
- Grazing regime maintained
- Ecological survey of site for use by other wetland/farmland birds, bats and other mammals (pine marten, badger)
- Connectivity must be fully retained (corridors through any physical barriers)
- Lighting must be bat friendly as per Dark Sky guidelines
- Mature trees retained
- Compensatory tree planting programme for ash tree lost due to die-back
- Biodiversity plan developed (for example, ponds, pollinator friendly planting)

Could the subject lands be developed (in whole or in part) for the purposes of playing pitches, flood lighting, changing facilities, etc. without comprising its essential biodiversity quality and ecological function/connectivity?

Such uses would be considered inappropriate (flood lighting)

Could the subject lands be developed (in whole or in part) for the purposes of landscaped public parks, seating areas, walkways, etc. without comprising its essential biodiversity quality and ecological function/connectivity?

Such uses would be considered appropriate, subject to:

- Minimal development of paths only, not landscaped park
- Ecological survey of site for use by wetland birds, bats and other mammals (pine marten, badger)
- Connectivity must be fully retained (corridors through any physical barriers)
- Lighting must be bat friendly as per Dark Sky guidelines
- Facility must be closed to public at dusk
 - Mature trees retained

	, , , , , , , , , , , , , , , , , , , ,
	for ash tree lost due to die-back
Could the subject lands be developed (in	Such uses would be considered appropriate,
whole or in part) for the purposes of low	subject to:
impact tourist accommodation, e.g.	• Limitation on the size of development
aires/campervan parking on minimal hard	versus retained green space
standing, campsites, sanitary and service	Grazing regime maintained
facilities, play areas, low-level path lighting,	• Ecological survey of site for use by
etc. without comprising its essential	wetland birds, bats and other mammals
biodiversity quality and ecological	(pine marten, badger)
function/connectivity?	 Connectivity must be fully retained
	(corridors through any physical barriers)
	• Lighting must be bat friendly as per
	Dark Sky guidelines
	Mature trees retained
	Compensatory tree planting programme
	for ash tree lost due to die-back
	Biodiversity plan developed (for

Compensatory tree planting programme

example, ponds,

planting)

friendly

pollinator

On the basis of the report of the WCC Biodiversity Officer and the above reasons for inclusion as a land use zoning, zone lands along the eastern boundary of the site (approximately corresponding to the edge of the existing built up area along Kilbride Road/Lakeview/Carrig Glen and a wooded area along the east of agricultural fields, as OS2 'Natural Areas'. Zone the remainder of the site for other land use zonings (e.g. T, etc.) as required, with the inclusion of a range of appropriate mitigation measures via general or specific objective in the written statement of the local area plan. Following a precautionary approach, and considering the range of mitigation measures that would be required, low-impact tourism uses would be more appropriate (e.g. campsite, etc.) than other land use zonings requiring the development of substantial structures.

Location Description

Lakeshore (Kilbride Road to Knockieran Bridge) Heavily vegetated area south of Kilbride Road along towards Knockieran Bridge.

Map of GI Asset







AG 'Agricultural Lands', Reservoir c. 100m buffer/conservation zone.

Reasons for inclusion as land use zoning include

100m buffer from Poulaphouca Reservoir pNHA, as continuation of approach in Blessington LAP 2013

Recommendation for the New Local Area Plan

Lakeshore (Knockieran Bridge to north-east LAP boundary, on lakeside of Kilbride Road only) Description South of Kilbride Road, heavily vegetated land along lakeshore and low lying open green area highly visible to Poulaphouca Reservoir SPA (to the south east of recently constructed and established rural housing). Map of GI Asset Land Use Zoning: Blessington LAP 2013





AG 'Agricultural Lands', reservoir c. 100m buffer/conservation zone.

Reasons for inclusion as land use zoning include

100m buffer from Poulaphouca Reservoir pNHA, as continuation of approach in Blessington LAP 2013; lands highly visible to Poulaphouca Reservoir SPA.

Recommendation for the New Local Area Plan

Lands corresponding to 100m buffer of Poulaphouca Reservoir pNHA:

Zone all lands identified as a GI asset, for the above reasons, as OS2 'Natural Areas'.

Lands outside of the above with high visibility and proximity to Poulaphouca Reservoir SPA:

Report of WCC Biodiversity Officer:

'This area is predominantly improved grassland, but it is connected to the reservoir and bordered by mature hedgerows. The linear connectivity to the reservoir is particularly important ecologically and should be retained.

Although part of this area fall outside the proposed 100m buffer surrounding the SPA, increasing the width of this buffer serves to further strengthen the ecological resilience of the SPA, by buffering it from adverse impacts such as disturbance. This area of grassland is closer to the known foraging habitat of the Greylag Goose at Threecastles, and within sight of the reservoir, and it could represent important reserve habitat, particularly in the advent of changing climatic conditions.'

Could the subject lands be developed (in whole or in part) for the purposes of substantial numbers of structures, hard surfacing, etc. without comprising its essential biodiversity quality and ecological function/connectivity?

Such uses would be considered inappropriate (would create an island of development in a wider agricultural landscape, better to maintain connectivity)

Could the subject lands be developed (in whole or in part) for the purposes of playing pitches, flood lighting, changing facilities, etc. without comprising its essential biodiversity quality and ecological function/connectivity?

Such uses would be considered inappropriate (flood lighting)

Could the subject lands be developed (in whole or in part) for the purposes of landscaped public parks, seating areas, walkways, etc. without comprising its essential biodiversity quality and ecological function/connectivity?

Such uses would be considered appropriate, subject to:

- Minimal development of paths only, not landscaped park
- Specific ornithological advice sought on potential use by Greylag Goose
- Ecological survey of site for use by wetland birds, bats and other mammals (pine marten, badger)
- Connectivity must be fully retained (corridors through any physical barriers)
- Lighting must be bat friendly as per Dark Sky guidelines
- Facility must be closed to public at dusk
- Mature trees retained
- Compensatory tree planting programme for ash tree lost due to die-back

Could the subject lands be developed (in whole or in part) for the purposes of low tourist accommodation, impact aires/campervan parking on minimal hard standing, campsites, sanitary and service facilities, play areas, low-level path lighting, without comprising its essential biodiversity quality and ecological function/connectivity?

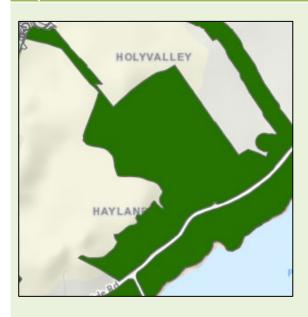
Such uses would be considered appropriate, subject to:

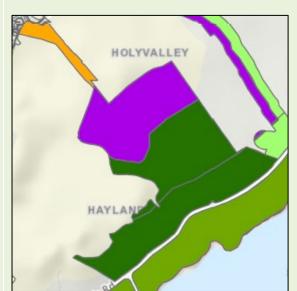
- Limitation on the size of development versus retained green space
- Grazing regime maintained
- Ecological survey of site for use by wetland birds, bats and other mammals (pine marten, badger)
- Connectivity must be fully retained (corridors through any physical barriers)
- Lighting must be bat friendly as per Dark Sky guidelines
- Mature trees retained
- Compensatory tree planting programme for ash tree lost due to die-back
- Biodiversity plan developed (for example, ponds, pollinator friendly planting)

On the basis of the report of the WCC Biodiversity Officer, the level of mitigation that would be required for other land uses, the sensitive landscape of the area, and the above reasons for inclusion of a land use zoning, zone all lands identified as a GI asset as OS2 'Natural Areas'.

Location	Doran's Pit & Adjacent Lands
Description	Former quarry lands that have partially
	regenerated into forestry/woodland, and other
	adjacent areas of existing forestry/woodland.
	Parts thereof are indicated as a Local Biodiversity
	Area.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013

Map of GI Asset





OS 'Open Space', E 'Employment', R1 'New Residential'.

Reasons for inclusion as land use zoning include

Existing areas of woodland/forestry CPOs 17.18-17.23, Local Biodiversity Area

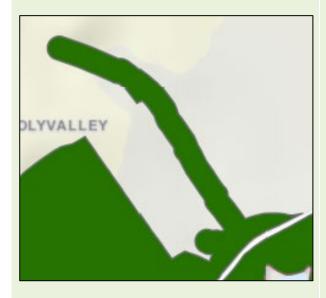
Recommendation for the New Local Area Plan

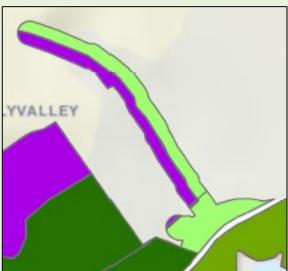
Location Description

Watercourse to north-east of Doran's Pit Watercourse and riparian zone in agricultural lands to north east of Doran's Pit. Flows under Kilbride Road into Poulaphouca Reservoir SPA.

Map of GI Asset







Reasons for inclusion as land use zoning include

AG 'Agricultural Lands', Reservoir c. 100m buffer/conservation zone, E 'Employment.

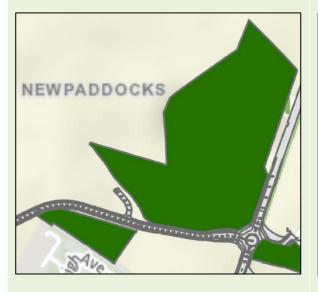
Watercourse 25m riparian buffer zone CPO 17.26; 100m buffer from Poulaphouca Reservoir pNHA, as continuation of approach in Blessington LAP 2013; A small area between the riparian buffer zone and the adjacent Doran's Pit GI Asset has been included to provide for ecological connectivity between the two GI Assets.

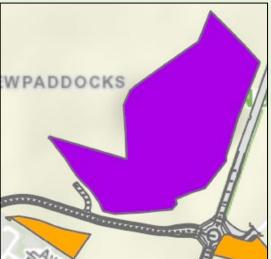
Recommendation for the New Local Area Plan

Location	Edmonstown Pond
Description	Waterbody, likely altered as part of adjacent quarrying operations, but visible on historical mapping for a significant time period.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013
OLDPADDOCKS	OLDPADDOCKS
Reasons for inclusion as land use zoning include	Watercourse 25m riparian buffer zone CPO 17.26

Zone all lands identified as a GI asset as OS2 'Natural Areas'.

Location	Newpaddocks & Santryhill forestry/woodland
Description	Two non-contiguous areas of existing
	forestry/woodland on either side of the proposed
	route of the northern section of the BIRR.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013





Reasons for inclusion as land use zoning include

E 'Employment', R2 'New Residential Low Density' Existing areas of woodland/forestry CPOs 17.18-17.23

Recommendation for the New Local Area Plan

Zone all lands identified as a GI asset as OS2 'Natural Areas'.

Location	The Rectory Pathway/Priest's Walk
Description	Tree-lined walkway linking Blessington Main
	Street to Kilbride Road through the recently
	completed Rectory residential development.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013
241 Percent	RE' Existing Residential', OS 'Open Space'
Reasons for inclusion as land use zoning include	Existing areas of woodland/forestry CPOs 17.18-17.23, Previous OS zoning as per the Blessington

On the basis of the existing trees on the walkway, the current status of the walkway as part of a recent housing development, and its previous zoning under the Blessington LAP 2013, it is recommended that the lands identified as a GI asset be zoned OS1 'Open Space'.

LAP 2013

Location	Kilbride Road Trees
Description	Areas of existing forestry/woodland to the north
	of Kilbride Road within the curtilage of residential development.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013

Reasons for inclusion as land use zoning include

Existing areas of woodland/forestry CPOs 17.18-17.23

RE 'Existing Residential'

Recommendation for the New Local Area Plan

On the basis of the lands previous zoning objective, and current live planning applications on the land at the time of writing, it is recommended to zone the lands RE 'Existing Residential', where the GI asset can be protected at development management stage through the application of the objectives and development standards of the Wicklow County Development Plan and Blessington Local Area Plan.

Location Description

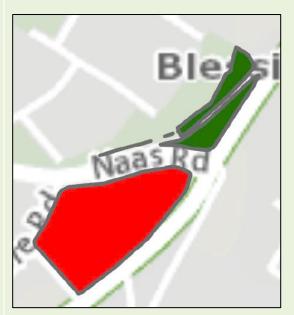
Dempsey's Lane/Naas Road Junction

Tree lined walkway following an old road alignment from Blessington Main Street to the Naas Road, along with irregular shaped inclined agricultural field to the immediate south with areas of mature trees. Indicated as a Local Biodiversity Area.

Map of GI Asset

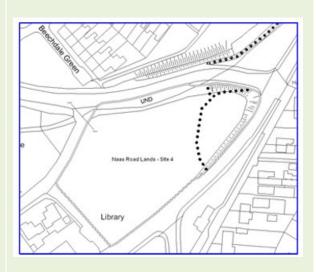
Land Use Zoning: Blessington LAP 2013





OS 'Open Space' (Dempsey's Lane), TC 'Town Centre (Naas Road Junction).

The LAP 2013 written statement indicates that the site zoned TC is designated OP4, with a requirement of a public open space of 0.3 ha and a walkway from Dempsey's Lane to Rockypool Villas:



Local Biodiversity Area, Existing areas of woodland/forestry CPOs 17.18-17.23, Previous OS zoning objective under Blessington LAP 2013.

Recommendation for the New Local Area Plan

Report of WCC Biodiversity Officer:

This area consists of a sloped, dry meadow enclosed by hedgerows and tree lines of varying quality. The meadow area is comprised of a good mix of grasses and flowering plants which will likely support a high diversity of pollinators, other invertebrates, and birds. Meadow species noted on the site visit included white clover Trifolium repens, buttercup Ranunculus spp., bush vetch Vicia sepium, ribwort plantain Plantago lanceolate, herb robert Geranium roberianum, ragwort Jacobaea vulgaris, giant willowherb Epilobium hirsutum, spear thistles Cirsium vulgare, marsh woundwort Stachys sylvatica and yellow rattle Rhinanthus minor.

The northern boundary is comprised of mature beech Fragus sylvatica trees and has been utilised by the local Tidy Towns group for the installation of bee boxes⁴. These veteran trees are of high ecological value, and likely harbour rich invertebrate life, as well as providing shelter and nest sites for a wide range of taxa. The boundary wrapping around the south west to the north east of the meadow is an escaped hedge, which is comprised of mature hawthorn Crataegus monogyna, blackthorn Prunus Spinosa, Elder, Sambucus nigra and willow Salix spp. This mature native hedgerow also has good ecological value, particularly for nesting and foraging birds (Great tit Parus major

Magpie Pica pica observed on site).

Although no direct signs were observed the site is forage-rich and secluded enough to support an array of small mammals, up to and including badger Meles meles, and likely functions as a valuable corridor and feeding area. Previous ecological surveys⁵ detected the presence of common pipistrelle Pipistrellus pipistrellus which use the tree lines and hedgerows for navigation and foraging.

This area is situated in a central and built-up part of Blessington, and functions as green refuge as well providing vital linkages with other important biodiversity areas, such as that developed at Dempsey's lane, which has also be greatly improved through the work of the Tidy Towns group.'

Could the subject lands be developed (in whole or in part) for the purposes of substantial numbers of structures, hard surfacing, etc. without comprising its essential biodiversity quality and ecological function/connectivity?	Such uses would be considered inappropriate
Could the subject lands be developed (in whole or in part) for the purposes of playing pitches, flood lighting, changing facilities, etc. without comprising its essential biodiversity quality and ecological function/connectivity?	Such uses would be considered inappropriate (flood lighting)
Could the subject lands be developed (in whole or in part) for the purposes of	Such uses would be considered appropriate, subject to:

⁴ https://blessingtontidytowns.ie/bee-boxes/

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⁵ Application WCC Reg. Ref. 23/60307

landscaped public parks, seating areas, walkways, etc. without comprising its essential biodiversity quality and ecological function/connectivity?

- Ecological survey of site for use by wetland birds, bats and other mammals (pine marten, badger)
- Connectivity must be fully retained (corridors through any physical barriers)
- Lighting must be bat friendly as per Dark Sky guidelines
- Facility must be closed to public at dusk
- Mature trees retained
- Mature hedgerows retained (not including low beech hedgerow)
- Biodiversity plan developed (for example, ponds, pollinator friendly planting)

Could the subject lands be developed (in whole or in part) for the purposes of low impact tourist accommodation, e.g. aires/campervan parking on minimal hard standing, campsites, sanitary and service facilities, play areas, low-level path lighting, etc. without comprising its essential biodiversity quality and ecological function/connectivity?

Such uses would be considered appropriate, subject to:
Subject to:

- Limitation on the size of development versus retained green space
- Ecological survey of site for use by wetland birds, bats and other mammals (pine marten, badger)
- Connectivity must be fully retained (corridors through any physical barriers)
- Lighting must be bat friendly as per Dark Sky guidelines
- Mature trees retained
- Biodiversity plan developed (for example, ponds, pollinator friendly planting)

On this basis of the report of the WCC Biodiversity Officer, the above reasons for inclusion as a land use zoning, the site's identification as a Local Biodiversity Area, and following a precautionary approach between the potentially appropriate uses, zone all lands identified as a GI asset as OS1 'Open Space'.

Location	N81 South
Description	Linear area existing trees between the N81 and
	Blessington Orchard.
Map of GI Asset	Land Use Zoning: Blessington LAP 2013
N81 181	N81 81
	RE 'Existing Residential'
	-
Reasons for inclusion as land use zoning include	Existing areas of woodland/forestry CPOs 17.18-17.23

On the basis of the small size and linear nature of the GI asset, it is recommended to zone the land RE 'Existing Residential' to reflect its previous zoning under the Blessington LAP 2013. The GI asset can be protected at development management stage through the application of the objectives and development standards of the Wicklow County Development Plan and Blessington Local Area Plan.

Location	Blessington Abbey
Description	Area of existing forestry/woodland between the N81 and Blessington Abbey
Map of GI Asset	Land Use Zoning: Blessington LAP 2013
the Green diassiped	he Green Sind
	RE 'Existing Residential'
Descent for inclusion as land use rening	Existing areas of woodland/forestry CDOs 17.10
Reasons for inclusion as land use zoning include	Existing areas of woodland/forestry CPOs 17.18-17.23

On the basis of the small size of the GI asset, it is recommended to zone the land RE 'Existing Residential' to reflect its previous zoning under the Blessington LAP 2013. The GI asset can be protected at development management stage through the application of the objectives and development standards of the Wicklow County Development Plan and Blessington Local Area Plan.

5. Identification of Green Infrastructure Specific Local Objectives in Blessington

Though not appropriate for a land use zoning objective, Green Infrastructure mapping has revealed areas where a Specific Local Objective or other development requirement could increase ecological connectivity within identified sites.

Namely, within the grounds of St. Mary's Senior National School is a substantial existing green space to the north of the school building. This existing green space is bounded on both sides by green corridors representing linear tree stands/shrubbery. While usually existing green spaces can act as 'stepping stones' between green corridors, there is a clear opportunity here for a more substantial link through the green area to join the eastern and western boundaries of the indicated green corridors. This would directly link the riparian corridor to the west with Blessington Main Street.

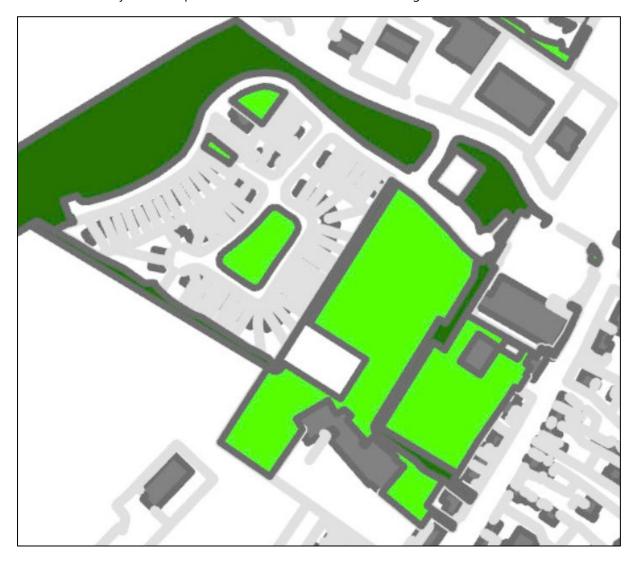


Figure 1: Green Infrastructure Assets in the vicinity of St. Mary's Senior National School.

Rather than including a new green corridor link as a land use zoning, it is recommended that a Specific Local Objective or other development requirement be included in the LAP written statement to ensure the creation of an east west green link through this site were any development on this existing green space to take place.

Secondly, significant opportunities exist for the creation of green corridors through active and former quarry lands. Such lands are surrounded to the south by Glen Ding Forest, the deerpark watercourse, and Local Biodiversity Areas along the west of the N81. To the north, in Co. Kildare, is the Red Bog SAC. The creation of additional ecological corridors through the redevelopment or restoration of quarries could greatly increase connectivity between these sites.

Rather than including new green corridor links as land use zonings, it is recommended that a Specific Local Objective or other development requirement be included in the LAP written statement to ensure the creation of an new green links through the area, were any redevelopment or restoration to take place.

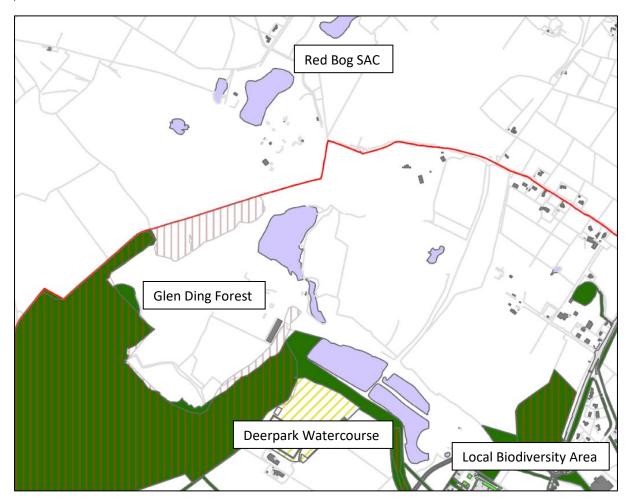


Figure 2: Green Infrastructure Assets in the vicinity of active/former quarry lands.



ENDLESS OPPORTUNITIES