

**APPROPRIATE ASSESSMENT SCREENING OF
PROPOSED RENOVATION OF DAN BREEN HOUSE,
TIPPERARY TOWN**

Appropriate Assessment Screening

In accordance with the requirements of Article 6 (3) of the Habitats Directive (Council Directive 92/43/EEC)



PREPARED FOR

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1. INTRODUCTION

This Appropriate Assessment Screening report has been prepared in compliance with Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning

Authorities (DoEHLG 2009, February 2010) and the European Communities (Birds and Natural Habitats) Regulations 2011 (DoEHLG) to assess the potential impact of the proposed renovation of Dan Breen House in Tipperary Town on the Natura 2000 network.

The closest protected Natura site to Dan Breen House is Lower River Suir SAC which lies 5.84 km to south of the site at its closest point.

This report provides the information required to establish whether or not the proposed work is likely to have a potential impact on this protected site in relation to its conservation objectives or specifically on the habitats and species for which this site has been designated.

1.1 Protected Sites

International Conservation Designations

The Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) forms the basis for the designation of Special Areas of Conservation (SAC). It lists certain habitats (Annex I) and species (Annex II) for special protection. Similarly, Special Protection Areas (SPA) are classified under the Birds Directive (Council Directive 2009/147/EEC on the Conservation of Wild Birds).

Collectively, SACs and SPAs are referred to as the Natura 2000 network.

In general terms, they are considered to be of exceptional importance for rare, endangered or vulnerable habitats and species within the European Community. The Screening Assessment is carried out in accordance with the requirements of Article 6(3) of the EU Habitats Directive (92/43/EEC), which attempts to ensure the conservation of a wide range of rare, threatened or endemic animal and plant species through the assessment of the potential adverse effects of a plan or project on SACs and SPAs.

An Appropriate Assessment is an evaluation of the potential impacts of a plan or project on the conservation objectives of a Natura 2000 site, and the development, where necessary, of mitigation or avoidance measures to preclude negative effects.

National Conservation Designations

In Ireland, the basic designation for wildlife is the **Natural Heritage Area (NHA)**. This is an area considered important for the habitats present or which holds species of plants and animals whose habitat needs protection.

Proposed Natural Heritage Areas (pNHA) are habitats or sites of interest to wildlife that have been identified by NPWS. These sites become NHAs once they have been formally advertised and landowners have been notified of their designation. NHAs are protected under the Wildlife (Amendment) Act, 2000, from the date they are formally proposed. NHA is a statutory designation according to the Wildlife (Amended) Act, 2000 and requires consultation with NPWS if any development impacts on a pNHA.

Appropriate Assessment Screening

Appropriate Assessment screening takes into consideration the likely effects on any protected site (SAC or SPA) within 15km of the proposed works site. There are four protected sites in the European NATURA network within 15 km of Dan Breen House.

These sites are listed in Table 1.

SITE	SITE CODE	DISTANCE FROM SITE
Lower River Suir SAC	002137	5.84 km to south
Moanour Mountain SAC	002257	7.6 km to south west
Galtee Mountains SAC	000646	8.73 km to south
Lower River Shannon SAC	002165	12.9 km to north west

Table 1 – Protected Sites with 15km of works site

None of the four sites listed in Table 1 are hydrologically linked to the proposed work site. At its closest point to the proposed site, Lower River Suir SAC is 5.84 km to the south. There are no other lines of connectivity from the site to any of these four sites. There are no SPAs for birds within 15km of the proposed site.

The Habitats Directive protects important habitats and species within Special Areas of Conservation (SACs). It lists certain habitats (Annex I) and species (Annex II) for special protection. A second European Directive – the Birds Directive – seeks to protect birds of conservation importance by the designation of Special Protection Areas (SPA's).

European and national legislation places an obligation on Ireland to maintain at favourable conservation status sites designated as Special Areas of Conservation and Special Protection Areas.

Favourable conservation status of a habitat is achieved when:

- Its natural range, and the area it covers within that range, is stable or increasing, and
- The ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- Population data on the species concerned indicate that it is maintaining itself, and
- The natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and
- There is, and probably will continue to be a sufficiently large habitat to maintain its populations on a long-term basis.

Article 6 assessments are required under the Habitat's Directive (92/43/EEC) where a project may have significant effects on a Natura 2000 site (a European compilation of Special Areas of Conservation - SAC's and Special Protection Areas – SPAs - for birds).

Currently a detailed conservation management plan has not been prepared by National Parks and Wildlife Service for Lower River Suir SAC. A conservation objectives report was prepared in 2017. A Site Synopsis for this SAC was prepared by NPWS in 2013. The Site Synopsis is included in the Appendix.

2. METHODOLOGY OF SCREENING

This screening report examines whether the effects of the proposed renovation of Dan Breen House will have a negative effect on Lower River Suir SAC.

Appropriate Assessment

The assessment of a proposed project likely to affect a Natura 2000 site is a 4-stage process

The relevant guidance documents for Appropriate Assessment set out a staged process for carrying out Appropriate Assessment, the first of which is referred to as screening.

Stage 1 - The screening stage identifies the likely impacts on Natura 2000 sites, if any, which would arise from a proposed plan or project, either alone, or in combination with other plans and projects, and further considers whether these impacts are likely to be significant.

If it can be concluded during the screening exercise that there is no likelihood of significant impacts occurring on any Natura 2000 sites, as a result of the proposed development either alone or in combination with other plans and projects, then there is no requirement to proceed to subsequent stages of Appropriate Assessment.

If it is not possible to conclusively rule out significant impacts on Natura 2000 sites, the assessment should proceed to Stage 2: Appropriate Assessment for which a Natura Impact Statement (NIS) must be prepared.

Stage 3 of the process is Assessment of Alternative Solutions which examines alternative ways of achieving the objectives of the plan or project that avoid adverse impacts on the integrity of the Natura 2000 site.

Stage 4 Assessment where Adverse Impacts Remain is an assessment of compensatory measures where, in the light of an assessment of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

This report is comprised of the ecological impact assessment and testing required under the provisions of Article 6(3) by means of the first stage of Appropriate Assessment – **Stage 1 - the screening process.**

EU Guidance states:

“This stage examines the likely effects of a project or plan, either alone or in combination with other projects or plans, upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant”.

This report also provides the information required for the Competent Authority to complete the Appropriate Assessment (Stage 2) should this be necessary in the opinion of the Competent Authority. Screening has been undertaken in accordance with the European Commission’s Guidance on Appropriate Assessment (European Commission, 2001) which comprises the following:

1. Description of the Plan
2. Identification of Natura 2000 Sites potentially affected by the Plan
3. Identification and Description of Individual and Cumulative impacts likely to result from the Plan
4. Assessment of the Significance of the impacts identified on the Conservation Objectives of the site(s)

5. Exclusion of sites where it can be objectively concluded that there will be no significant impacts on conservation objectives

Following the guidelines set out by NPWS (2009), Appropriate Assessment Screening (Phase 1 - Appropriate Assessment) is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3) of the EU Habitats Directive –

- (1) Is the plan or project directly connected to or necessary for the management of the site?
- (2) Is the plan or project, alone or in combination with other such plans or projects likely to have significant negative effects on a Natura 2000 site(s) in view of the conservation objectives of that site(s)?

The renovation of Dan Breen House, outbuildings and site does not comply with the first screening test as the proposed development is not directly connected to, or necessary for the management of any Natura 2000 site. This screening exercise will therefore inform the Appropriate Assessment process in determining whether the proposed development, alone or in combination with other plans or projects, is likely to have significant effects on the Natura 2000 sites within the study area.

If effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overtly complicated, then the Appropriate Assessment process must proceed to Stage 2 Appropriate Assessment and the preparation of a Natura Impact Statement (NIS).

3. DESCRIPTION OF THE PROJECT

Nature and Extent of Proposed Development

Refurbishment and repurposing for training, educational and office use of the three storey Dan Breen House which sits centrally within the application site currently with an adjoining brick-built side extension. Works involve

I. Refurbishment and minor alterations to the Protected Structure, Dan Breen House including installation of new windows and doors, building fabric upgrades for energy efficiency, building services installations, installation of a new lift which will access all floors, alteration of the current toilet layout and installation of new fully accessible toilets on the ground floor and first floor. The building has a gross internal area of 58m² on the lower ground floor, 189m² on the ground floor and 184m² on the upper floor giving a gross internal area of 431m².

II. Refurbishment and repurposing for training and educational use of a single storey outbuilding of stone construction situated within a lower terrace area towards the south western boundary. Works involve installing roof structure and roof coverings, installing new windows and doors, building services installations and building fabric upgrades. The building has an internal area of 41m².

III. Refurbishment and repurposing for training and educational use of a two storey outbuilding situated along the western boundary. Works involve replacement roof

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structure and roof coverings, installing new windows and doors, building services installations and building fabric upgrades. The building has an internal area of 65m² on the ground floor and 67m² on the upper floor giving a gross internal area of 132m².

IV. Demolition of the single storey former Tipperary Town Library, single storey store/canteen building to the north of the library and replacement with a new single storey extension for flexible use with an internal area of 245m².

V. Demolition of the single storey red brick toilet block extension to the North of the two storey outbuilding at the rear of Dan Breen House and formation of a building services plant building situated along the north western boundary with a covered ‘loggia’ structure for outdoor activities, storage and cycle parking.

VI. Development of a rear courtyard surrounded by the new extension to the East, the new ‘loggia’ structure to the North, the existing two storey out building to the West and Dan Breen House to the South.

VII. Construction of a new entrance hall that will link the existing Dan Breen House to the new extension and allow access to the rear court yard including construction of a new stepped arrangement for access to the lower level of Dan Breen House and the lower level single storey outbuilding.

VIII. Installation of photovoltaic solar panels to the flat roof of the new single storey plant building and ‘loggia’ structure to the North of Dan Breen House.

IX. Landscaping enhancements throughout the site including installation of new edgings at junctions between hard and soft landscaping, asphalt surfacing to car park and access road, natural stone paving to the front of Dan Breen House, the new extension and the court yard along with installation of Nature Based Sustainable Urban Drainage Management systems to protect and enhance the existing mature trees and plants on site.

X. Installation of low-level lighting to car park, courtyard and walkways, up lighting to the mature trees, Dan Breen House and the buildings to the rear along with lighting within the columned frontages of the new extension and northern ‘loggia’ structure.

XI. Provision of 10no. car parking spaces including 2no. accessible parking spaces in close proximity to the main building entrance, provision of EV charging points and short stay secure bicycle parking.

XII. Development of a vehicle access security system at the vehicle entrance to the site.

4. SITE VISIT

Dan Breen House was visited on 20th September 2022..



Figure 1 – Plan showing the location of Dan Breen House in Tipperary Town

The River Ara flows through Tipperary Town approximately 700 m south of Dan Breen House. The River Ara flows in a south east direction to join the River Aherlow approximately 18 km downstream of Tipperary town. The boundary of Lower River Suir SAC lies close to the confluence of the River Ara and River Aherlow. The River Aherlow proceeds to flow in a south easterly direction to join the River Suir. There is no hydrological connectivity between the site of Dan Breen House and the River Ara. Therefore, there are no pathways to Lower River Suir SAC. The potential for adverse effects can therefore be ruled out.

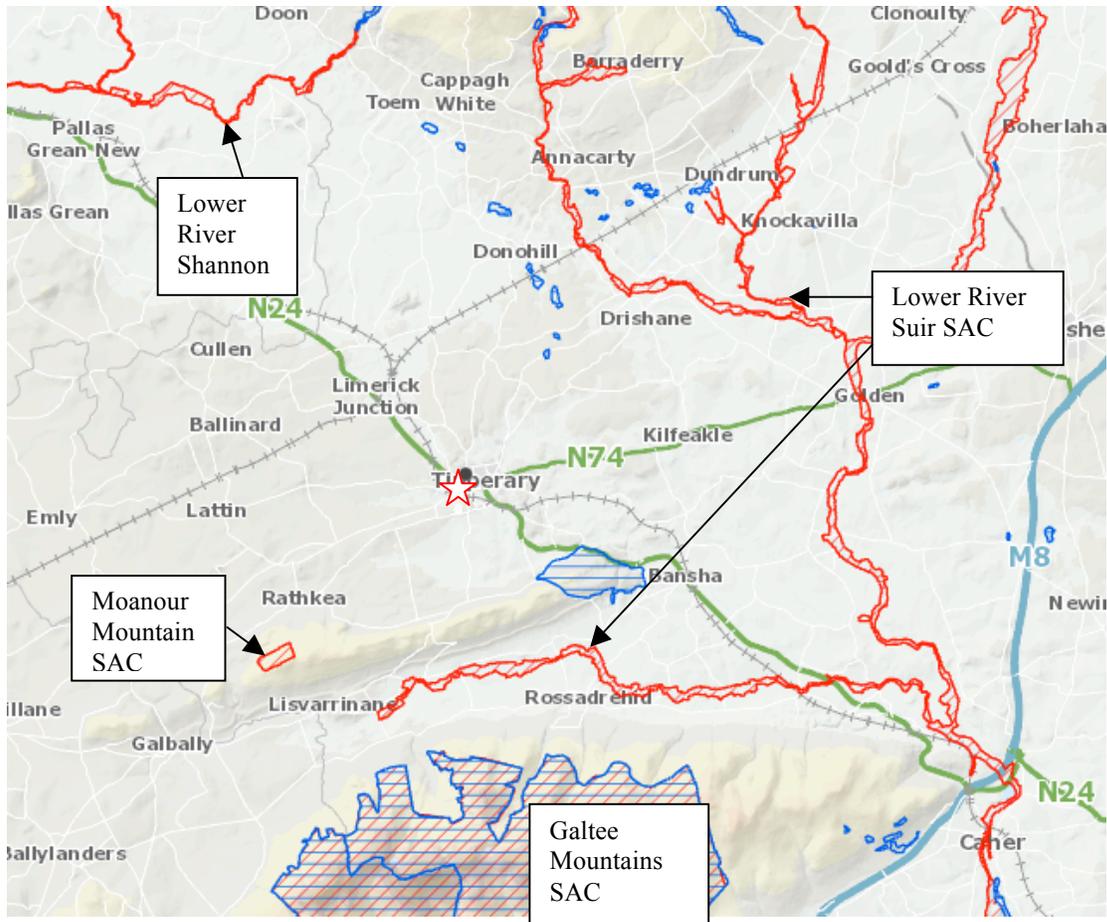


Figure 2 - showing location of protected sites (Nature 2000) in relation to Dan Breen House in Tipperary Town (red star) — SACs illustrated in red hatching

5. RECEIVING ENVIRONMENT

Identification of Natura 2000 sites potentially impacted by the proposed works

The Habitats Directive protects important habitats and species within Special Areas of Conservation (SACs). It lists certain habitats (Annex I) and species (Annex II) for special protection. A second European Directive – the Birds Directive – seeks to protect birds of conservation importance by the designation of Special Protection Areas (SPA's). Special Areas of Conservation and Special Protection Areas form a pan-European network of protected sites known as Natura 2000 sites.

European and national legislation places an obligation on Ireland to maintain at favourable conservation status sites designated as Special Areas of Conservation and Special Protection Areas.

Favourable conservation status of a habitat is achieved when:

- Its natural range, and the area it covers within that range, is stable or increasing, and
- The ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and

- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- Population data on the species concerned indicate that it is maintaining itself, and
- The natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and
- There is, and probably will continue to be a sufficiently large habitat to maintain its populations on a long-term basis.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition.

5.1 Description of the Receiving Environment

Appropriate Assessment screening is required by National Parks and Wildlife Service (NPWS) to determine the potential for significant effects on any Natura 2000 site (SAC or SPA) or its conservation objectives as a result of this renovation project.

The closest Natura 2000 site is Lower River Suir SAC (Site code 002137). At its closest point this SAC lies 5.84 km to the south of Dan Breen House.

6. DESCRIPTION OF POTENTIAL IMPACTS

6.1 Potential Habitats Affected

The habitats listed as Qualifying Interests for Lower River Suir SAC are – Atlantic Salt Meadows, Mediterranean Salt Meadows, Floating River Vegetation, Hydrophilous Tall Herb Communities, Old Oak Woodlands, Alluvial Forests and Yew Woodlands.

None of these habitats will be adversely affected by the proposed renovation works to Dan Breen House.

6.2 Potential Species affected

The species listed as Qualifying Interests for Lower River Suir SAC are – Freshwater Pearl Mussel (*Margaritifera margaritifera*), White-clawed Crayfish (*Austropotamobius pallipes*), Sea Lamprey (*Petromyzon marinus*), Brook Lamprey (*Lampetra planeri*), River Lamprey (*Lampetra fluviatilis*), Twait Shad (*Alosa fallax*), Atlantic Salmon (*Salmo salar*) and Otter (*Lutra lutra*).

None of these species will be adversely affected by the proposed renovation works to Dan Breen House.

6.3 Cumulative Effects

Article 6(3) of the Habitat's Directive requires an assessment of a plan/project to consider other plans/projects that might, in combination with the proposed plan/project, have the potential to adversely impact upon Natura 2000 sites.

There is no significant potential for cumulative impacts associated with the proposed works.

6.4 Gauging the impacts on Natura 2000 sites - Integrity of site check list

The potential impacts of the proposed works on Natura 2000 sites are gauged using a checklist, which aids in determining whether the development has the potential to have a significant negative impact on any Natura 2000 site. The checklist contains a number of pertinent questions as set out below

Does the Plan have the potential to:	YES/NO
Cause delays in progress towards achieving the conservation objectives of the Natura 2000 site?	<u>NO</u>
Interrupt progress toward achieving the conservation objectives of the Natura 2000 site?	<u>NO</u>
Disrupt those factors helping to maintain the favourable conditions at the Natura 2000 site?	<u>NO</u>
Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the Natura 2000 site?	<u>NO</u>
Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the Natura 2000 site functions as a habitat or ecosystem?	<u>NO</u>
Change the dynamics of the relationships (between, for example, soil and water or plants and animals) that define the structure and/or function of the Natura 2000 site?	<u>NO</u>
Interfere with predicted or expected natural changes to the Natura 2000 site (such as water dynamics or chemical composition)?	<u>NO</u>
Reduce the area of key habitats within the Natura 2000 site?	<u>NO</u>
Reduce the population of key species of the Natura 2000 site?	<u>NO</u>
Alter the balance between key species of the Natura 2000 site?	<u>NO</u>
Reduce the biodiversity of the Natura 2000 site?	<u>NO</u>
Result in disturbance that could affect population size or density or the balance between key species within the Natura 2000 site?	<u>NO</u>
Result in fragmentation?	<u>NO</u>
Result in the loss or reduction of key features of Natura 2000 sites?	<u>NO</u>

7. CONCLUSIONS OF SCREENING

According to the guidance published by the NPWS (DoEHLG, 2009), Screening for Appropriate Assessment can either identify that a Natura Impact Statement (NIS) is not required where:

- (1) A project/proposal is directly related to the management of the site.
- (2) There is no potential for significant effects affecting the Natura 2000 network

Where the screening process identifies that significant effects are certain, likely or uncertain the project must either proceed to Stage 2 Appropriate Assessment or be rejected. The likely impacts that will arise from the proposed works have been examined in the context of a number of factors that could potentially impact upon the integrity of the Natura 2000 network. On the basis of the findings of this Screening for Appropriate Assessment, it is concluded that the development:

- (1) Is not directly connected with or necessary to the management of a Natura 2000 site and
- (2) Will not have significant impacts on the Natura 2000 network.

Therefore, it is concluded that no Natura 2000 site will be adversely affected by the renovation works at Dan Breen House

Screening having identified that, assuming all codes of best practice and management are complied with, there is no potential for significant effects affecting the Natura 2000 network, Stage II Appropriate Assessment and the preparation of a Natura Impact Statement is not required in this case

8. REFERENCES

Appropriate Assessment Screening – Dan Breen House, Tipperary Town

Anon. (2010) Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. National Parks and Wildlife Service, Dept Environment, Heritage and Local Government.

Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979

Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1982

Council of the European Communities (1992). Council Directive (92/43/EEC) of 21 May 1992 on the Conservation of natural habitats and of wild fauna and flora. *Official Journal of the European Communities* L215, 85-90 [Habitats Directive]

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [Habitats Directive]

Directive 2009/147/EC of the European parliament and of the Council of 30 November 2009 on the conservation of Wild Birds [Birds Directive]

Environmental Protection Agency (1995) Advice notes on current practice in the preparation of Environmental Impact Statements. EPA Wexford

Environmental Protection Agency (1997) Draft guidelines to be contained in the information in Environmental Impact Statements. EPA Wexford

European Commission (2002) Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC. Luxembourg: Office for Official Publications of the European Communities.

European Commission (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC. Luxembourg: Office of Official Publications of the European Communities

European Commission (2007) Guidance Document on Article 6(4) of the “Habitat’s Directive” 92/43/EEC; Clarification of the concepts of alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission.

Fossitt, J. (2000) *A Guide to Habitats in Ireland*. The Heritage Council. Kilkenny

Marnell, F., Kelleher, C. & Mullen, E. (2022) Bat Mitigation Guidelines for Ireland V2. *Irish Wildlife Manuals*, No. 134. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

Appropriate Assessment Screening – Dan Breen House, Tipperary Town

Marnell, F., Looney, D. & Lawton, C. (2019) *Ireland Red List No. 12: Terrestrial Mammals*. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage. Dublin, Ireland.

NPWS (2019) *The Status of EU Protected Habitats and Species in Ireland. Conservation status in Ireland of Habitats and Species listed on the European Council Directive on the Conservation of Habitats, Flora and Fauna 92/43/EEC*. Volume 1. Summary overview. Unpublished NPWS report. National Parks and Wildlife Service. Department of Environment, Heritage and Local Government, Dublin.

NPWS (2017) Conservation Objectives: Lower River Suir SAC 002137 Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs

Wildlife Act 1976 including all other amendments 1979 – 2010. Number 39 of 1976 and Number 38 of 2000. Dublin: Government Publications.

Wildlife Amendment Act 2000. Dublin: Government Publications.

Websites

www.npws.ie – website of the national Parks and Wildlife Service

www.nbdc.ie – website of the National Biodiversity Data Centre

www.epa.ie – website of the Environmental Protection Agency

9. APPENDIX

Site Synopsis

Site Name: Lower River Suir SAC

Site Code: 002137

Lower River Suir SAC consists of the freshwater stretches of the River Suir immediately south of Thurles, the tidal stretches as far as the confluence with the Barrow/Nore immediately east of Cheekpoint in Co. Waterford, and many tributaries including the Clodiagh in Co. Waterford, the Lingaun, Anner, Nier, Tar, Aherlow, Multeen and Clodiagh in Co. Tipperary.

The Suir and its tributaries flow through the counties of Tipperary, Kilkenny and Waterford. Upstream of Waterford city, the swinging meanders of the Suir criss-cross the Devonian sandstone rim of hard rocks no less than three times as they leave the limestone-floored downfold below Carrick-on-Suir. In the vicinity of Carrick-on-Suir the river follows the limestone floor of the Carrick Syncline. Upstream of Clonmel the river and its tributaries traverse Upper Palaeozoic Rocks, mainly the Lower Carboniferous Visean and Tournaisian. The freshwater stretches of the Clodiagh River in Co. Waterford traverse Silurian rocks, through narrow bands of Old Red Sandstone and Lower Avonian Shales, before reaching the carboniferous limestone close to its confluence with the Suir. The Aherlow River flows through a Carboniferous limestone valley, with outcrops of Old Red Sandstone forming the Galtee Mountains to the south and the Slievenamuck range to the north. Glacial deposits of sands and gravels are common along the valley bottom, flanking the present-day river course.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [1330] Atlantic Salt Meadows
- [1410] Mediterranean Salt Meadows
- [3260] Floating River Vegetation
- [6430] Hydrophilous Tall Herb Communities
- [91A0] Old Oak Woodlands
- [91E0] Alluvial Forests*
- [91J0] Yew Woodlands*
- [1029] Freshwater Pearl Mussel (*Margaritifera margaritifera*)
- [1092] White-clawed Crayfish (*Austropotamobius pallipes*)
- [1095] Sea Lamprey (*Petromyzon marinus*)
- [1096] Brook Lamprey (*Lampetra planeri*)
- [1099] River Lamprey (*Lampetra fluviatilis*)
- [1103] Twaité Shad (*Alosa fallax*)
- [1106] Atlantic Salmon (*Salmo salar*)
- [1355] Otter (*Lutra lutra*)

Alluvial wet woodland is a declining habitat type in Europe as a result of drainage and reclamation. The best examples of this type of woodland in the site are found on the islands just below Carrick-on-Suir and at Fiddown Island. Species occurring here include Almond Willow (*Salix triandra*), White Willow (*S. alba*), Rusty Willow (*S. cinerea* subsp. *oleifolia*), Osier (*S. viminalis*), with Yellow Iris (*Iris pseudacorus*), Hemlock Water-dropwort (*Oenanthe crocata*), Wild Angelica (*Angelica sylvestris*), Pendulous Sedge (*Carex pendula*), Meadowsweet (*Filipendula ulmaria*) and Common Valerian (*Valeriana officinalis*). The terrain is littered with dead trunks and branches and intersected with small channels which carry small streams to the river. The bryophyte and lichen floras appear to be rich. A small plot is currently being coppiced and managed by the National Parks and Wildlife Service. In the drier areas species such as Ash (*Fraxinus*

excelsior), Hazel (*Corylus avellana*), Hawthorn (*Crataegus monogyna*) and Blackthorn (*Prunus spinosa*) occur. Eutrophic tall herb vegetation occurs in association with the various areas of alluvial forest and elsewhere where the floodplain of the river is intact. Characteristic species of the habitat include Meadowsweet, Purple Loosestrife (*Lythrum salicaria*), Marsh Ragwort (*Senecio aquaticus*), Ground Ivy (*Glechoma hederacea*) and Hedge Bindweed (*Calystegia sepium*).

Old oak woodlands are also of importance at the site. The best examples are seen in Portlaw Wood which lies on both sides of the Clodiagh River. On the south-facing side the stand is more open and the oaks (mainly Pedunculate Oak, *Quercus robur*) are well grown and spreading. Ivy (*Hedera helix*) and Bramble (*Rubus fruticosus* agg.) are common on the ground, indicating relatively high light conditions. Oak regeneration is dense, varying in age from 0-40 years and Holly (*Ilex aquifolium*) is fairly common but mostly quite young. Across the valley, by contrast, the trees are much more closely spaced and though taller, are poorly grown on average. There are no clearings; large oaks extend to the boundary wall. In the darker conditions, Ivy is much rarer and Holly much more frequent, forming a closed canopy in places. Oak regeneration is uncommon since there are as yet few natural clearings. The shallowness of the soil on the north-facing slope probably contributes to the poor tree growth there. The acid nature of the substrate has induced a 'mountain' type oakwood community to develop. The site is quite species-rich throughout, including an abundance of mosses, liverworts and lichens. The rare lichen *Lobaria pulmonaria*, an indicator of ancient woodlands, is found here.

Inchinquillib Wood consists of three small separate sloping blocks of woodland in a valley cut by the young Multeen River and its tributaries through acidic Old Red Sandstone and Silurian rocks. Two blocks, both with an eastern aspect, located to the north of the road, are predominantly of Sessile Oak (*Quercus petraea*) and Hazel, with Downy Birch (*Betula pubescens*), Ash and Holly. The ground flora is quite mixed with, for example, Wood-sedge (*Carex sylvatica*), Bluebell (*Hyacinthoides non-scripta*), Primrose (*Primula vulgaris*), Wood-sorrel (*Oxalis acetosella*), Pignut (*Conopodium majus*) and Hard Fern (*Blechnum spicant*). The base poor nature of the underlying rock is to some extent masked by the overlying drift. The third block, to the south of the road, and with a northern aspect, is a similar although less mature mixture of Sessile Oak, Birch and Holly. Here the influence of the drift is more marked, with the occurrence of Wood Anemone (*Anemone nemorosa*) amongst the ground flora.

Two stands of Yew (*Taxus baccata*) woods, a rare habitat in Ireland and the E.U., occur within the site. These are on limestone ridges at Shanbally and Cahir Park. Both are in woods planted with non-native species, including conifers. However, the area at Cahir Park is fairly substantial in size and includes some relatively undisturbed patches of wood and some very old trees. Regeneration of the Yew trees is mostly poor, due to competition from species such as Sycamore (*Acer pseudoplatanus*) and, at Shanbally, due to heavy grazing by goats. Other native species which occur with the Yew trees include Ash, Pedunculate Oak, Hazel and Spindle (*Euonymus europaeus*). Future prospects for these Yew woods are good as the sites are proposed for restoration under a Coillte E.U. LIFE programme.

Floating river vegetation is evident in the freshwater stretches of the River Suir and along many of its tributaries. Typical species found include Canadian Pondweed (*Elodea canadensis*), water-milfoils (*Myriophyllum* spp.), Fennel Pondweed (*Potamogeton pectinatus*), Curled Pondweed (*P. crispus*), Perfoliate Pondweed (*P. perfoliatus*), Pond Water-crowfoot (*Ranunculus peltatus*), other crowfoots (*Ranunculus* spp.) and the moss

Fontinalis antipyretica. At a couple of locations along the river Opposite-leaved Pondweed (*Groenlandia densa*) occurs. This species is protected under the Flora (Protection) Order, 1999. The Aherlow River is fast flowing and mostly follows a natural unmodified river channel. Submerged vegetation includes the aquatic moss *Fontinalis antipyretica* and Stream Water-crowfoot (*R. pencillatus*), while shallow areas support species such as Reed Canary-grass (*Phalaris arundinacea*), Brooklime (*Veronica beccabunga*) and Water Mint (*Mentha aquatica*). The river bank is fringed in places with Alder (*Alnus glutinosa*) and willows (*Salix* spp.). The Multeen River is fast flowing, mostly gravel-bottomed and appears to follow a natural unmodified river channel. Water-crowfoots occur in abundance and the aquatic moss *Fontinalis antipyretica* is also common. In sheltered shallows, species such as Water-cress (*Nasturtium officinale*) and water-starworts (*Callitriche* spp.) occur. The river channel is fringed for most of its length with Alder, Willow and a narrow strip of marshy vegetation.

Salt meadows occur below Waterford City in old meadows where the embankment is absent, or has been breached, and along the tidal stretches of some of the inflowing rivers below Little Island. There are very narrow, non-continuous bands of this habitat along both banks. More extensive areas are also seen along the south bank at Ballynakill, the east side of Little Island, and in three large salt meadows between Ballynakill and Cheekpoint. The Atlantic and Mediterranean sub-types are generally intermixed. The species list is extensive and includes Red Fescue (*Festuca rubra*), oraches (*Atriplex* spp.), Sea Aster (*Aster tripolium*), Sea Couch (*Elymus pycnanthus*), frequent Sea Milkwort (*Glaux maritima*), occasional Wild Celery (*Apium graveolens*), Parsley Water-dropwort (*Oenanthe lachenalii*), English Scurvygrass (*Cochlearia anglica*) and Sea Arrowgrass (*Triglochin maritima*). These species are more representative of the Atlantic sub-type of the habitat. Common Cord-grass (*Spartina anglica*), is rather frequent along the main channel edge and up the internal channels. The legally protected (Flora (Protection) Order, 1999) Meadow Barley (*Hordeum secalinum*) grows at the landward transition of the saltmarsh. Sea Rush (*Juncus maritimus*), an indicator of the Mediterranean salt meadows, also occurs.

Other habitats at the site include wet and dry grassland, marsh, reedswamp, improved grassland, coniferous plantations, deciduous woodland, scrub, tidal river, stony shore and mudflats. The most dominant habitat adjoining the river is improved grassland, although there are wet fields with species such as Yellow Iris, Meadowsweet, rushes (*Juncus* spp.), Meadow Buttercup (*Ranunculus acris*) and Cuckooflower (*Cardamine pratensis*).

Cabragh marshes, just below Thurles, lie in a low-lying tributary valley into which the main river floods in winter. Here there is an extensive area of Common Reed (*Phragmites australis*) with associated marshland and peaty fen. The transition between vegetation types is often well displayed. A number of wetland plants of interest occur, in particular the Narrow-leaved Bulrush (*Typha angustifolia*), Bottle Sedge (*Carex rostrata*) and Blunt-flowered Rush (*Juncus subnodulosus*). The marsh is naturally eutrophic but it has also the nutritional legacy of the former sugar factory which discharged into it through a number of holding lagoons, now removed. Production is high, which is seen in the size of such species as Celery-leaved Buttercup (*Ranunculus sceleratus*), as well as in the reeds themselves.

Throughout the Lower River Suir site are small areas of woodland other than those described above. These tend to be a mixture of native and non-native species, although there are some areas of semi-natural wet woodland with species such as Ash and willow. Cahir Park Woodlands is a narrow tract of mixed deciduous woodland lying on the flat-

lying floodplain of the River Suir. This estate woodland was planted over one hundred years ago and it contains a large component of exotic tree species. However, due to original planting and natural regeneration there is now a good mix of native and exotic species. About 5 km north-west of Cashel, Ardmayle pond is a long, possibly artificial water body running parallel to the River Suir. It is partly shaded by planted Lime (*Tilia* hybrids), Sycamore and the native Alder. Growing beneath the trees are shade tolerant species such as Remote sedge (*Carex remota*).

The site is of particular conservation interest for the presence of a number of Annex II animal species, including Freshwater Pearl Mussel (both *Margaritifera margaritifera* and *M. margaritifera* subsp. *durrovensis* occur), White-clawed Crayfish, Salmon, Twaite Shad (*Alosa fallax fallax*), three species of Lampreys - Sea Lamprey, Brook Lamprey and River Lamprey, and Otter. This is one of only three known spawning grounds in the country for Twaite Shad. The site also supports populations of several other animal species. Those which are listed in the Irish Red Data Book include Daubenton's Bat, Natterer's Bat, Pipistrelle Bat, Pine Marten, Badger, Irish Hare, Smelt and Common Frog. Breeding stocks of Carp are found in Kilsheelan Lake. This is one of only two lakes in the country which is known to have supported breeding Carp. Carp require unusually high summer water temperatures to breed in Ireland. As the site is therefore unusual in this regard, it may also support interesting invertebrate populations.

Parts of the site have also been identified as of ornithological importance for a number of Annex I (E.U. Birds Directive) bird species, including Greenland Whitefronted Goose (10), Golden Plover (1,490), Whooper Swan (7) and Kingfisher. Figures given in brackets are the average maximum counts from four count areas within the site for the three winters 1994-1997. Wintering populations of migratory birds use the site. Flocks are seen in Coolfinn Marsh and also along the reedbeds and saltmarsh areas of the Suir. Coolfinn supports nationally important numbers of Greylag Goose on a regular basis, with numbers between 600 and 700 recorded. Other species occurring include Mallard (21), Teal (159), Widgeon (26), Tufted Duck (60), Pintail (4), Pochard (2), Little Grebe (2), Black-tailed Godwit (20), Oystercatcher (16), Lapwing (993), Dunlin (101), Curlew (195), Redshank (28), Greenshank (4) and Green Sandpiper (1). Nationally important numbers of Lapwing (2,750) were recorded at Faithlegg in the winter of 1996/97. In Cabragh marshes there is abundant food for surface feeding wildfowl which total approximately 1,000 in winter. Widgeon, Teal and Mallard are numerous, and the latter has a large breeding population, with up to 400 in summer. In addition, less frequent species like Shoveler and Pintail occur and there are records for both Whooper and Bewick's swans.

Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive, occurs along some of the many tributaries throughout the site.

Land use at the site consists mainly of agricultural activities including grazing, silage production, fertilising and land reclamation. The grassland is intensively managed and the rivers are therefore vulnerable to pollution from run-off of fertilisers and slurry. Arable crops are also grown. Fishing is a main tourist attraction on stretches of the Suir and some of its tributaries, and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. Both commercial and leisure fishing takes place on the rivers. The Aherlow River is a designated Salmonid Water under the E.U. Freshwater Fish Directive.

Appropriate Assessment Screening – Dan Breen House, Tipperary Town

Other recreational activities such as boating, golfing and walking are also popular. Several industrial developments, which discharge into the river, border the site including three dairy related operations and a tannery.

The Lower River Suir contains excellent examples of a number of Annex I habitats, including the priority habitats alluvial forest and Yew woodland. The site also supports populations of several important animals species, some listed on Annex II of the Habitats Directive or listed in the Irish Red Data Book. The presence of two legally protected plants (Flora (Protection) Order, 1999) and the ornithological importance of the site adds further to the ecological interest and importance.