

Section 2.11 Biodiversity and Natural Heritage

Overarching Principle

To maximise appropriate access to and use of the Grand Canal, Griffeen Valley Park and other biodiversity assets in an ecologically sensitive way, thereby offering unique selling points to the SDZ Planning Scheme.

3.3km
Canal frontage



2.11.1 Introduction

The SDZ lands benefit from rich and varied natural heritage features, habitats and landscapes, all of which are important in defining the character of Clonburris and in providing amenities for future residents. There are many benefits to protecting these and a key challenge of the Planning Scheme will be to balance the protection of the built and natural heritage and the management of change.

Any new development should enhance rather than diminish heritage features, structures and sites and places of interest such as the historic hedgerows, the Grand Canal and the protected species using the area. It is not possible to retain all habitats within the SDZ lands, however wherever possible, habitats have been retained within the Planning Scheme in the form of Natural Green Space around the Canal and Griffeen River, Kilmahuddrick stream, Public Open Space and retained hedgerows/treelines.

Key Principles

- » To seek to protect and enhance natural, built and cultural heritage features, where appropriate, such as the Grand Canal, streams, Protected Structures and barony and townland boundary hedgerows;
- » To improve the quality, character and continuity of the Grand Canal (pNHA);
- » To avoid or minimise the impact on protected species and their habitats;
- » To promote local heritage, the naming of any new residential development should reflect the local and historical context of its siting, and may include the use of the Irish language; and
- » Incorporate biodiversity and heritage into new developments.

2.11.2 Biodiversity and Natural Heritage Features

Grand Canal

The Grand Canal is a proposed Natural Heritage Area (pNHA) and comprises the canal channel and the banks on either side of it. It is considered to be the most valuable natural, built and cultural heritage asset on the lands. The ecological value of the canal lies in the diversity of species it supports along its linear habitats including Annex II of the EU Habitats Directive species Otter and White-clawed Crayfish, Bats species (Common Pipistrelle, Soprano Pipistrelle, Leisler's Bat, Daubenton's Bat and Brown Long-eared Bat), and also flora and fauna of local importance.

Any development within the SDZ lands shall assist with safeguarding and improving the quality, character and continuity of the Grand Canal (pNHA) and facilitating the protected species, biodiversity, and its contribution to a fully functioning Green Infrastructure network. The Planning Scheme provides for a 50m set-back for all buildings from the northern side of the Grand Canal, to afford the optimal degree of protection to the Grand Canal ecological corridor.

In order to ensure the continuity of the character of the northern tow path as an ecological corridor, access to the northern tow path of the Grand Canal shall be carefully designed, in particular, access to areas of greatest sensitivity shall be avoided. Points of access to the northern towpath of the Canal shall be detailed in the Landscape and Parks Strategy (PLS) for the lands (see Section 2.10 Landscape and Open Space).

Appropriate access to the northern towpath shall be carefully designed based on site specific characterises and sensitivities (including lighting design, new planting of hawthorn and blackthorn species) and shall be set out in the LPS. (See also Sections 2.10)

Where new canal crossings i.e footbridges/cycle bridges are proposed, they shall be designed so as to avoid fragmentation of linear habitats associated with the Grand Canal Corridor.

To seek to protect and enhance natural, built and cultural heritage features.

All external lighting should be downlighting and should be time limited where possible. Lighting should be avoided in sensitive wildlife areas and light pollution, in general, should be avoided. Any additional nocturnal illumination of the canal corridor resulting from the development of the Planning Scheme should be kept to a minimum. Further lighting along the northern bank shall be restricted and shall be based on the sensitivities of bat species using the northern bank.

Ecological Corridors

There are three primary ecological corridors on the lands comprising the Grand Canal and associated towpath, Griffeen River and along the railway line.

The Griffeen River is used by species such as Trout and White-Clawed Crayfish, and also the Otter for both hunting and commuting. The Griffeen River corridor also links the Grand Canal to several habitats, including the River Liffey and as such is of importance to these species.

The rail line essentially provides an uninterrupted corridor through countryside, through an array of habitats and could be used by a large number of species for commuting between various habitats.

All development proposals within 50m of the Grand Canal and feeder streams and 30m meters from the top of the bank of all watercourses shall be accompanied by an Ecological Impact Assessment. This shall be prepared by a qualified Ecologist and in line with *Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater and Coastal*⁴ (CIEEM 2nd ed 2016)

All development proposals should seek to enhance biodiversity and avoid or minimise loss of existing habitats and wildlife corridors.

In order to inform the Strategic Environmental Assessment (SEA) and the Planning Scheme, ecological surveys were carried out in 2015, 2016 and 2017.

Given the biodiversity value of the SDZ lands, a Biodiversity Management Plan (BMP) shall be prepared by a qualified Ecologist and be guided by relevant best practice guidelines and established techniques for habitats present on the SDZ lands. The BMP shall form part of the PLS. (See Section 2.10 Parks and Landscape Strategy).

Hedgerows

In addition to the primary ecological corridors, there is in excess of 30 km of hedgerow/treeline habitat within the SDZ lands. The Hedgerow/treeline habitat linking the Grand Canal Corridor and the Rail corridor should be retained where possible, in order to maintain the continued ecological integrity of these habitats including for foraging and commuting bats. Where these hedgerows cannot be retained, a new hedgerow network composed of the same species shall be planted along roadways within the development.

A Method Statement for the construction, planting regime and species selection of both 'dry' and 'wet' hedgerows shall be provided with all planning applications for developments within 10m of existing hedgerows along the barony boundary, the Grand Canal and the Griffeen and Kilmahuddrick streams.

The Grand Canal is a proposed Natural Heritage Area (pNHA) and comprises the canal channel and the banks on either side of it. It is considered to be the most valuable natural, built and cultural heritage asset on the lands.



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Protected Species

A number of rare and protected species have been observed using the site especially close to the Grand Canal and the Griffeen Stream. Protected Species recorded on the site include Otter, White Clawed Crayfish (population likely to be of international importance), and five Bats species (Common Pipistrelle, Soprano Pipistrelle, Leisler's Bat, Daubenton's Bat and Brown Long-eared Bat).

The disturbance of bats or Otters or their breeding or resting places, is an offence under domestic and international law. In the event that there is no satisfactory alternative, a derogation licence shall be sought from the relevant authorities prior to applying for planning permission.

In order to comply with European and National legislation on nature conservation, and to ensure that areas of biodiversity value are adequately protected, an EIA, prepared by a qualified Ecologist and in line with Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater and Coastal (CIEEM 2nd ed 2016) shall be required for development proposals that have the potential to impact on environmentally sensitive sites in particular within 50m of the Grand Canal, and 30m of the Griffeen River and the Kilmahuddrick stream.

Environmentally sensitive sites are defined as sites that are protected under EU and National Legislation, sites that may be in use by, or contain protected species or habitats; or sites that are in proximity to watercourses. All development proposals should seek to enhance biodiversity and avoid or minimise loss of existing local habitats and wildlife corridors.

Invasive species

Three invasive species occur within the SDZ lands; Japanese Knotweed (*Fallopia japonica*); Himalayan Balsam (*Impatiens glandulifera*); and Canadian Waterweed (*Elodea canadensis*). No development shall take place on the lands until an Invasive Species Management and Control Plan (ISMCP) has been prepared and implemented to prevent the introduction of any new species, prevent the movement and spread of any existing species and eradicate any existing species from the lands. The intent of an ISMCP is that all equipment and material must arrive at the site free of any invasive plant species propagules and that all equipment and material leaving the site must be free of any invasive plant species propagules. The ISMCP shall be prepared by a suitably qualified person and shall include the following objectives:

- » To prevent the introduction of any new species of alien invasive plant to the SDZ lands;
- » To prevent the movement and spread of any existing alien invasive plant species on the SDZ lands;
- » To eradicate any populations of invasive alien plant species on the SDZ lands;
 1. The Invasive Species Management and Control Plan shall Identify and map existing alien invasive plant species present within the SDZ lands and immediate area;
 2. Eradicate any populations of invasive species in accordance with best practice principles and guidelines issued by Invasive Species Ireland and National Parks and Wildlife Service;
 3. Annual monitoring of the site for 5 years post eradication to ensure that any populations of alien invasive plant species have been eradicated; and
 4. Traceability of all imported material and the imposition of requirement for certification of all imported material as being free of propagules of any Third Schedule-listed alien invasive plant species.

2.11.3 Place Names

Established place names are key elements of local context and wayfinding. Existing place names should be retained and their use promoted through the proposed development, particularly through the use of public art, and the marking of barony boundaries where appropriate.

