

Figure 5.2 Protected Views map

5.2 CULTURAL HERITAGE

5.2.1 Protected Structures and Architectural Conservation Areas

There are a number of Protected Structures in Donabate, some of which are located within the LAP lands. The table below details the relevant structures in the LAP areas.

Table 5.2: Protected Structures on LAP Lands

RPS No	Structure Name	Street Address	Town-land	Description
		Corballis		
502	Railway Bridge	Corballis Road	Kilcrea	Stone rail bridge over road
505	Vernacular House and Former Forge	Hearse Road	Donabate	House, forge, wheel shoeing-stone and stone trough

There are two 'Architectural Conservation Areas' designated on the Donabate Peninsula. Newbridge Demesne and The Square ACA borders the western Corballis LAP boundary. St Ita's Hospital and Portrane Demesne ACA includes the northeastern portion of the Ballymastone LAP lands.

5.2.2 Archaeology and Recorded Monuments

The Donabate area is known to have been extensively settled since the prehistoric period. As part of the background research for the Donabate LAP in 2006, Fingal County Council commissioned an archaeological and cultural heritage assessment of the LAP lands. A desktop study of the area was done, together with a field walkover survey of the LAP lands and a geophysical survey of the lands at Corballis and Ballymastone. Limited test excavations were also carried out at Corballis and Ballymastone. In addition the *Donabate-Portrane Historic Landscape Characterisation, 2007* revealed a number of potential archaeological features and sites, some of which warrant further investigation prior to the commencement of any development on these lands. Any applications for development on the LAP lands should be accompanied by an Archaeological Impact Assessment, the results of which may require further investigation. In addition, all relevant applications will be referred to the Department of Arts, Heritage, and the Gaeltacht for their comment and advice.

There are a number of recorded monuments located on the Donabate-Portrane Peninsula. The following monuments are located on the LAP lands.

Table 5.3: Recorded Monuments on LAP Lands

RPS No	Location	Monument	Description
	Ballymastone		
DU012-088	Ballymastone	Enclosure	This monument was subject to geophysical survey (Licence no. 05R012) and test excavation (Licence no. 07E0650) to inform the Donabate Local Area Plan 2006. A ditched (1m wide) circular enclosure (50m diam.) was identified. (Frazer 2007).
DU012-084	Ballymastone	Ring-Ditch:	This monument was subject to geophysical survey (Licence no. 05R012) and test excavation (Licence no. 06E0027) to inform the Donabate Local Area Plan 2006. A circular ditch (5.45m diam.) and possible post or pit were identified. Although no diagnostic material was recovered, it was interpreted on the basis of morphology as a probable prehistoric hut (Baker 2006, 17).
DU012-085	Ballymastone	Ring-Ditch:	This monument was subject to geophysical survey (Licence no. 05R012) and test excavation (Licence no. 07E0650) to inform the Donabate Local Area Plan 2006. A possible ring ditch (8m diam.) was identified. (Frazer 2007).
	Corballis		
DU012-086	Corballis	Burnt Mound	This monument was subject to geophysical survey (Licence no. 05R012) and test excavation (Licence no. 06E0027) to inform the Donabate Local Area Plan 2006. A spread of burnt mound material (4m diam.) was identified (Baker 2006, 10).

The details below relate to monuments which are located in close proximity to LAP lands at Corballis and Rahillion.



Donabate Train Station



Newbridge House



Comhairle Contae
Fhine Gall
Fingal County
Council

Figure 5.3
Proposed Draft Local Area Plan Donabate
- Protected Structures and ACA's -

- Legend**
- Protected Structures
 - Architectural Conservation Area (ACA)
 - Donabate LAP Lands

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Main Street, Swords

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Date: Apr 2015	Scale @ A1: 1:15,500

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Figure 5.3 - Illustrates Protected Structures and Architectural Conservation Areas on Donabate Peninsula.

RPS No	Location	Monument	Description
	Corballis		
DU0012-019 -	South of Corballis LAP boundary	Earthwork	The OS 1837 and 1937 map editions show 'site of moat' on a break in slope overlooking Malahide estuary. The field is in tillage. There are no visible surface traces.
DU0012-020 -	Southeast of Corballis LAP boundary	House	16th / 17th Century. Located on the N shore of Malahide estuary. This two-storey building, rectangular in plan, incorporates a sequence of building phases some of which may date from the 17th century. A dwelling is marked on the Down Survey (1655-6) map at this location. The Civil survey (1654-6) mentions a 'slated house' at Corballis (Simington 1945, 50). There is an irregular pattern of windows in the building. According to the owner an ornamented window was discovered in the W end of the N wall during refurbishments to the house but is plastered over. Stone mullions were also unearthed in the grounds (Moylan 1961, 23-24). In one of the out-offices running S of the house there is the remains of a stairwell.
	Rahillion		
DU008-026	North of Rahillion LAP lands	Quay	Immediately E of Raheen Point on the S side of Rogerstown estuary. The site formerly comprised two roughly parallel banks with a marshy hollow in between where the tide comes in. These banks measured c. 60m in extent. They are levelled and all that remains is this elongated hollow.
DU009-027	North of Rahillion LAP lands	Windmill	A plain stone tower mill (diam. c. 5.20m, H c. 8m), with opposite doorways in the E and W. Rises to three storeys with slit windows lighting the ascent. Post-1700 AD.

DU008-089	North of Rahillion LAP lands	Enclosure	Circular enclosure visible as a crop mark on an aerial photograph (SMR file; pers. comm. T. Condit).
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Through sensitive design and the inclusion of interpretative signage, the LAP will promote improved access, greater awareness and appreciation of local archaeology, such as the Windmill close to the Rahillion LAP Lands.

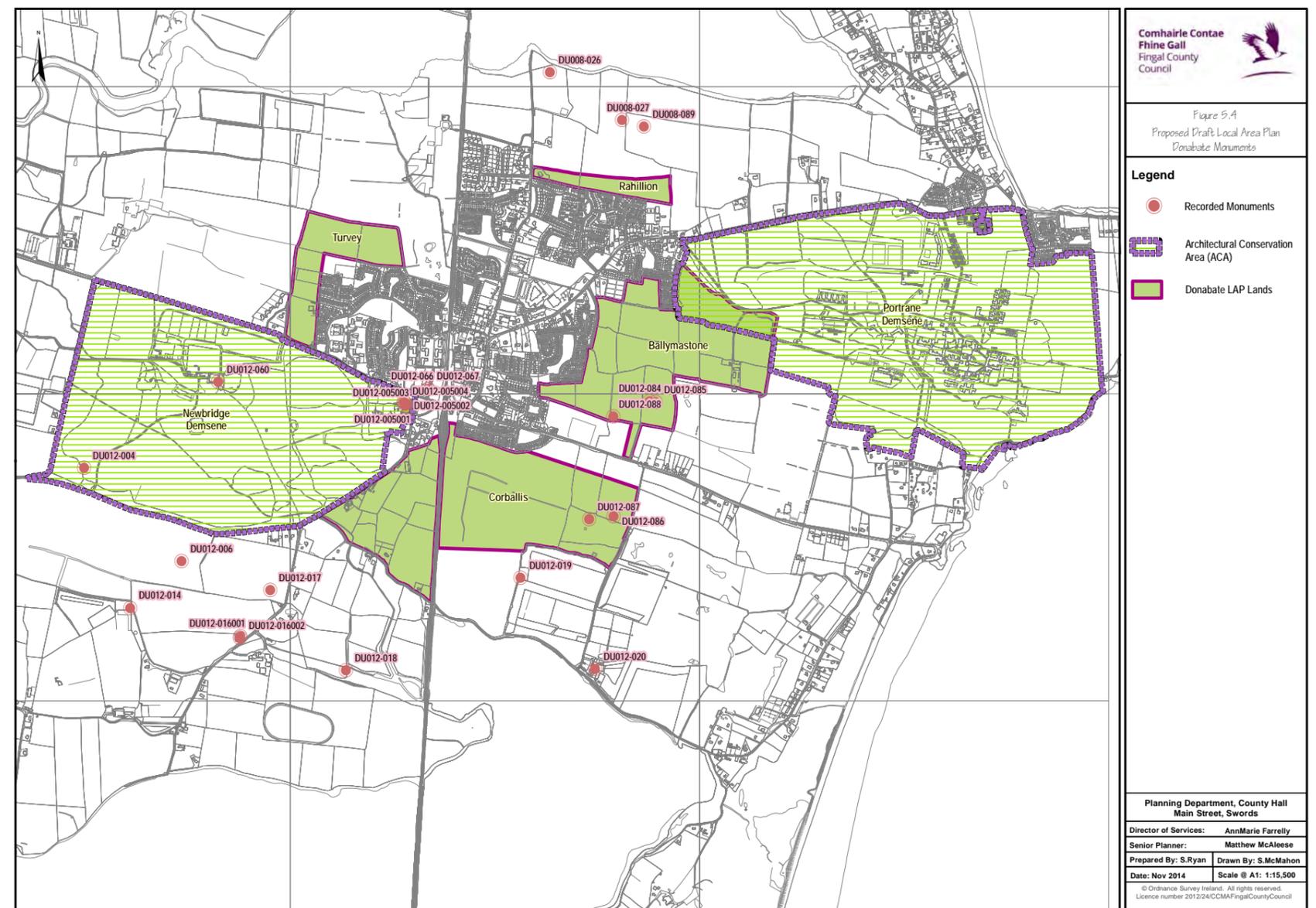


Figure 5.4 Map showing locations of Recorded Monuments -

5.3 FLORA AND FAUNA

Biodiversity is not only valuable in terms of its intrinsic worth, it also holds value as a tourism asset and in the role it plays in the provision of clean air and water, healthy soils, food and building materials. The principal habitat types found within and adjacent to the LAP areas include (but are not limited to): agricultural or cultivated land, woodland, estuarine and coastal habitats. The Donabate Peninsula enjoys many natural areas including the Rogerstown and Malahide Estuaries which form part of the Natura 2000 network.

Dublin Bay Biosphere Reserve

The Dublin Bay Biosphere Reserve is a special designation awarded by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). The Biosphere is managed by the Dublin Bay Biosphere Partnership which includes Fingal County Council, Dublin City Council, Dun Laoghaire-Rathdown County Council, Dublin Port, National Parks & wildlife Service and local community groups and NGOs.

5.3.1 Natura 2000 Sites

The EU Habitats Directive (92/43/EEC) provides legal protection for habitats and species of European importance, through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are candidate Special Areas of Conservation (cSAC) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC). The Malahide and Rogerstown Estuaries surrounding Donabate are part of this Natura 2000 network.

In accordance with Article 6(3) of the Directive, AA was carried out in relation to the Donabate LAP and is available as a separate document (Appendix 3).

Table 5.4 – Areas Protected Under EU and National Legislation

SPECIAL AREAS OF CONSERVATION (SAC)	Site Code
European Habitats Directive (92/43/EEC)	
Rogerstown Estuary	000208
Malahide Estuary	000205
SPECIAL PROTECTION AREAS (SPA)	Site Code
EU (Birds) Directive (97/409/EEC)	
Rogerstown Estuary	004015
Malahide Estuary	004025

NATURAL HERITAGE AREAS (NHA) & Proposed NATURAL HERITAGE AREAS (pNHA)	Site Code
Rogerstown Estuary	000208
Malahide Estuary	000205

Table 5.5: Protected Areas Of International And National Importance (Of Relevance To Donabate And Peninsula)

	SAC	SPA	pNHA	NHA	WFDRPA	Ramsar	SNR	RFF
Malahide / Swords/ Malahide Estuary	✓	✓	✓		✓	✓		
Rogerstown Estuary	✓	✓	✓		✓	✓	✓	
Portrairie Shore			✓		✓			

SAC	Special Area of Conservation
WFDRPA	Water Framework Directive Register of Protected Areas site
SPA	Special Protection Area
Ramsar	Site designated pursuant to Ramsar Convention on Wetlands
pNHA	proposed Natural Heritage Area
SNR	Statutory Nature Reserve
NHA	Natural Heritage Area
RFF	Refuge for Fauna
Where an area has more than one designation, the area covered by each designation may be different.	

The Estuaries are designated because of the thousands of birds that gather here in wintertime and because of the range of coastal habitats present in these sites that are of European importance such as mudflats, dunes etc. Fingal has an international responsibility to make sure that a favourable conservation status is maintained for the habitats and species of these sites, which are rare and threatened throughout Europe. These sites are our critical natural capital and their protection forms the basis of the nature conservation strategy and sustainable planning framework in Fingal.

5.3.2 Ecological Strategy and Vision for the Future

Fingal County Council and other statutory agencies will protect the integrity of all important sites in Fingal and improve the habitats where opportunities arise. The Fingal Estuaries will continue to provide an excellent wintering habitat for the thousands of birds that spend the winter here. It is envisaged that disturbance by people at the core sites of the wintering birds and breeding seabirds would be minimal and the development of buffer zones around the land-based European designated sites and nationally designated wetland sites should protect these sites from any adverse impacts resulting from adjacent land use. Designated walkways / trails are proposed as part of this LAP which aim to alleviate amenity pressure away from these Natura 2000 sites.

Strategy

Masterplans for the designated sites and surrounding lands shall be prepared by Fingal County Council in conjunction with landowners and other stakeholders. The most appropriate land use, nature conservation goals and development of recreational infrastructure within each of the sites shall be worked out in greater detail in these plans. Particular focus shall be on the Rogerstown Estuary and the Malahide Estuary. A Masterplan has been prepared for Rogerstown Inner Estuary. Work is underway on the Rogerstown Outer Estuary Management Plan and a Masterplan is also scheduled for Malahide Estuary.

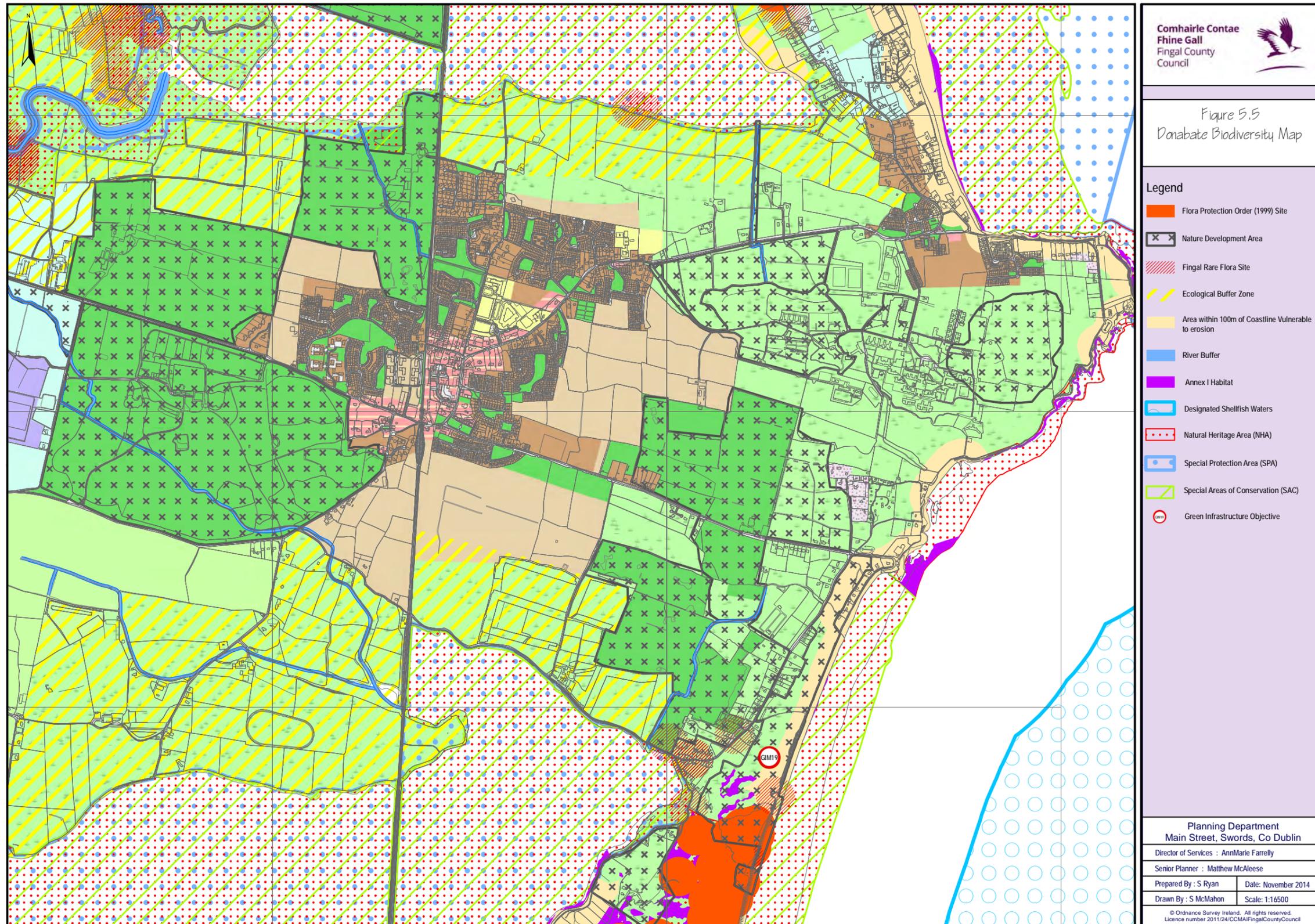


Figure 5.5 SAC / SPA / NHA map (source: Fingal Dev Plan 2011 - 2017)

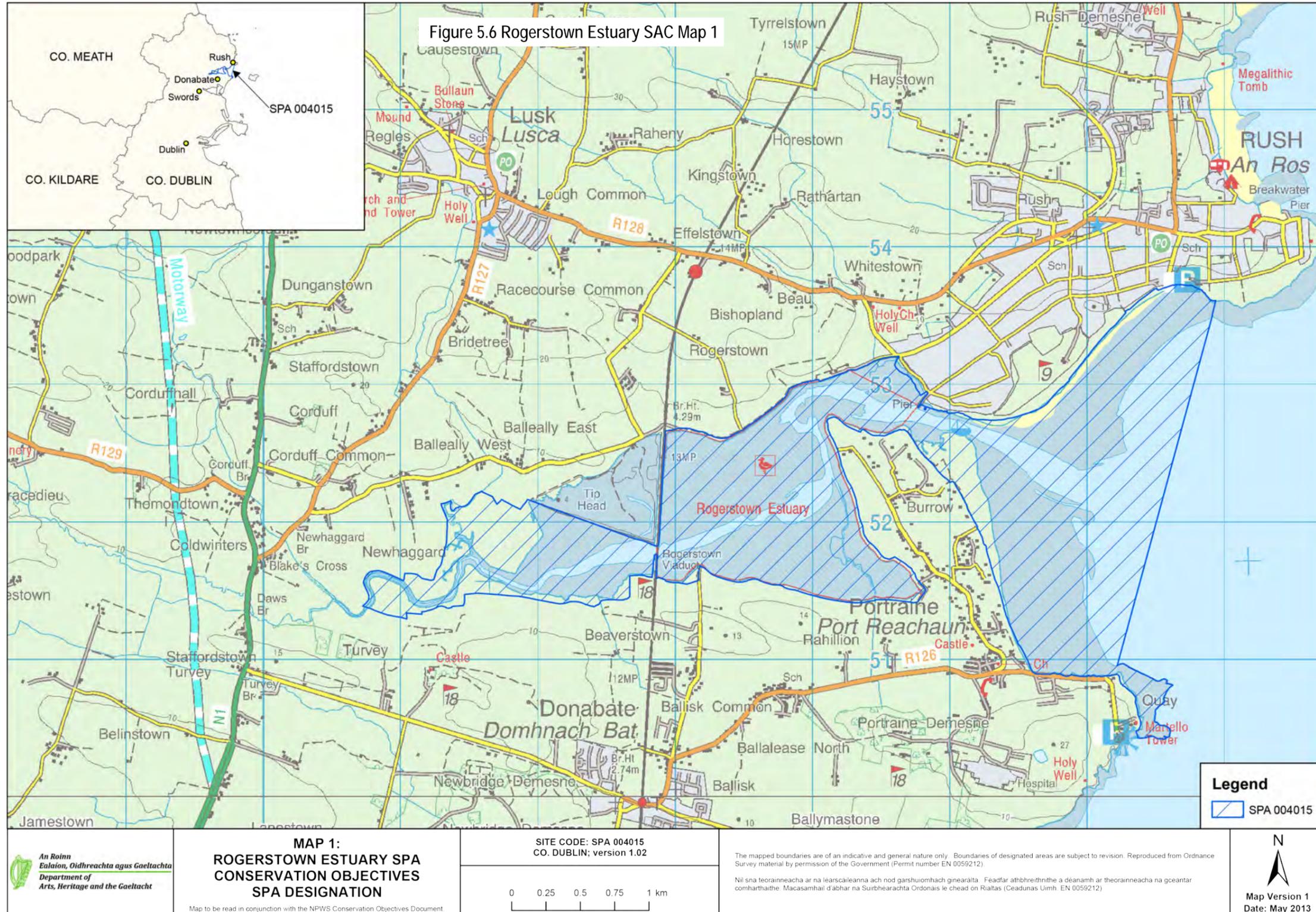


Figure 5.6 Rogerstown Estuary SAC Map

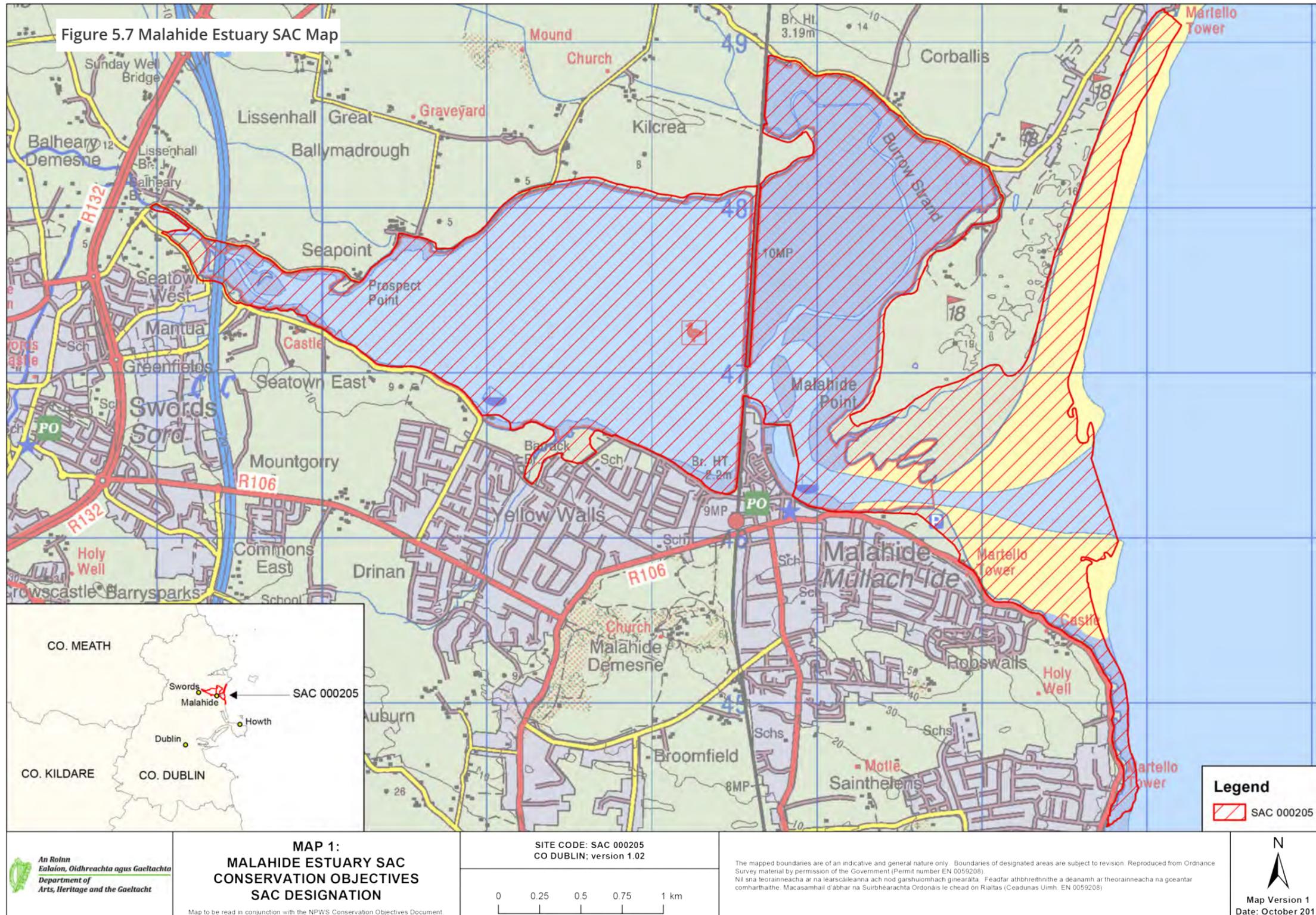


Figure 5.7 Malahide Estuary SAC maps.

5.4 BIODIVERSITY

The Fingal Ecological Network sets out a spatial framework for biodiversity conservation and management in Fingal. The ecological network consists of the following elements:

1. Core Biodiversity Conservation Areas (Natura 2000 sites)
2. Ecological Buffer Zones
3. Nature Development Areas
4. Ecological Corridors and Stepping Stones

The approach is primarily based on strictly protecting the most important biodiversity conservation areas in the County as required by law, including the identification and protection of ecological buffer zones around these areas, providing opportunities for nature through the development of conservation initiatives in Nature Development Areas and by protecting important movement corridors and stepping stones for wildlife in the landscape.

5.4.1 Core Biodiversity Conservation Areas

These comprise the protected areas of International and National importance such as Malahide and Rogerstown Estuaries, together with the ecological buffer zones around such protected areas.

5.4.2 Ecological Buffer Zones

Ecological Buffer Zones are located adjacent to the LAP lands at Corballis, Turvey and Rahillion with the ecological buffer zone extending into the southern portion of the Corballis LAP lands. These zones are established to protect the Rogerstown and Malahide Estuaries SAC and SPA from the adverse effects of development, by providing suitable habitat for key species such as birds and providing for compatible land-uses around the designated sites. Ecological buffer zones are areas where agricultural uses may be combined with nature conservation and low-intensity recreational use such as walking and cycling.

The *Fingal Biodiversity Action Plan 2010-2015* recognises the importance of the buffer zone around the estuaries. These areas will be developed as multi-functional landscapes where agricultural land-use is maintained and, where appropriate, combined with nature conservation targets and low intensity recreational use. Intensive recreational uses are not considered appropriate within the ecological buffer zones.

It is proposed to provide a Nature Park within the Ecological Buffer Zone lands south of Corballis LAP lands. (Please refer to Section 8 Corballis Nature Park). This will ensure the impact of new development is properly managed and separated from close proximity to the coastline.

5.4.3 Nature Development Areas

There are a number of Statutory Nature Reserves and Refuges for Fauna in Fingal. These areas, established under the Wildlife Acts 1976 and 2000, are areas where nature conservation is the primary objective and takes precedence over all other activities. The Council will normally only grant permission where it is clearly demonstrated that a proposal will have no significant adverse impact on the habitats and species of interest in the designated area and its ecological integrity. Turvey Nature Reserve is located west of the LAP lands at Turvey and northwest of Newbridge Demesne and Donabate Village. The LAP lands at Turvey, Ballymastone and Corballis all lie adjacent to existing designated 'Nature Development Areas'. The Development Plan describes these areas as:

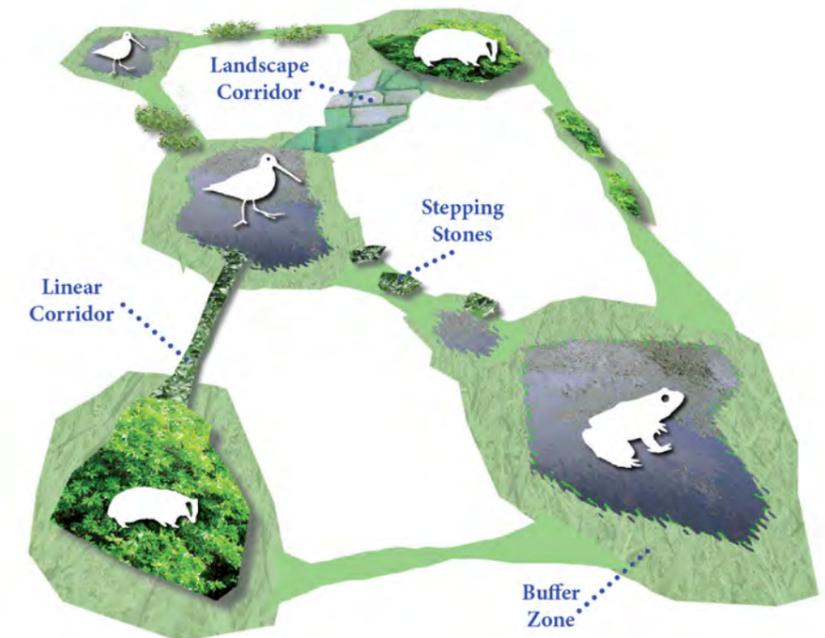
"These areas, which are referred to as 'nature development areas', are locations where nature conservation can be combined with existing activities such as farming, forestry, quarrying and recreation (e.g. golf courses). The areas and land-uses have been selected because of their existing or potential value for wildlife. The nature development areas are reservoirs of biodiversity in the wider countryside and together with the corridors and stepping stones allow species to move through the landscape. Specific objectives have been developed for the nature development areas in the Fingal Biodiversity Plan and the Council will work with landowners to achieve benefits for biodiversity in these areas. From a planning perspective, the Council aims to ensure that the biodiversity value of these areas is maintained and enhanced. Applications for planning permission must demonstrate how the proposed development will maintain and enhance the biodiversity value of the site."

5.4.4 Ecological Corridors and Stepping Stones

Ecological corridors are linear landscape features such as rivers, hedgerows and road verges that enhance the movement of wildlife through the landscape. Stepping stones comprise a series of smaller landscape features such as small woodlands, areas of scrub, wet grassland and marshes. The plan lands contain an abundance of biodiversity features in the form of tree, hedgerows and watercourses as well as estuarine and farmland bird species and fauna. Natural features provide important wildlife habitats as well as contributing significantly to the character, setting and amenity of this coastal setting. The policies and objectives of the FDP 2011-2017 and *Fingal Biodiversity Action Plan 2010-2015* are committed to the protection and enhancement of the County's biodiversity.

The integrity of an effective ecological green network within the LAP lands will be dependent on the existence of green spaces / stepping stones, corridors and links that will criss-cross the Plan lands. The

creation of this green network will provide opportunities to improve linkages, for both the residents of the area and local wildlife. Within the Donabate LAP, it is envisaged that the green network will be formed through a series of supporting trails through the residential area, in the form of footpath and cycleways, which will provide additional routes for wildlife and residents to filter through the area.



Courtesy of áit urbanism + landscape

Source: Ait Urbanism and Landscape

5.5 APPROPRIATE ASSESSMENT & STRATEGIC ENVIRONMENTAL ASSESSMENT

Under the Habitats and Birds Directive and the Strategic Environmental Assessment Directive, both an Appropriate Assessment (AA) and a Strategic Environmental Assessment (SEA) were carried out for the Local Area Plan lands, including the written statement, maps and objectives.

The preparation of the Draft LAP runs in parallel with the SEA and AA and both of these processes have significantly influenced the drafting of this LAP. The Plan had regard to both assessments with resultant changes being made to the LAP throughout the Plan process. In addition, the LAP has had regard to other relevant environmental legislation.

The AA specifically assesses the potential impact on Natura 2000 sites (and their conservation objectives) of the implementation of the Plan based on the Natura Impact Report (NIR) and other supplementary information; the ultimate aim being to avoid significant adverse impacts on these sites.

The Draft NIR for the Donabate LAP determined that there is no requirement to proceed to Stage 3 of the AA as there is no significant detrimental effect identified as a result of implementation of the Plan to the integrity of any European Site. The Draft Natura Impact Report is published alongside the Draft Local Area Plan and Draft Environmental Report.

The Draft NIR recorded the decisions that were taken during the preparation of the Draft LAP. It determined that, assuming the successful implementation of the Objectives contained within the Draft LAP and the application of the mitigation measures provided, there will be no adverse effects on the integrity of European Sites alone or in combination with other Plans and Projects acting in the same area.

Appendix 2 contains the Draft Environmental Report, prepared by Brady Shipman Martin Consultants. Appendix 3 contains the Draft Natura Impact Report, prepared by Scott Cawley Consultants.



LANDSCAPE OBJECTIVES**OBJECTIVE 5.1**

Development proposals shall include Visual Impact Assessments and Landscape Impact Assessments demonstrating compliance with LAP landscape and heritage objectives, outlined hereunder.

OBJECTIVE 5.2

Protect views and prospects that contribute to the character of the landscape, particularly those identified in the Development Plan, and where appropriate, incorporate principal views of the surrounding area, in particular, views over Malahide Estuary, into future development schemes. Protect areas of high landscape quality including Special Amenity Areas, High Amenity zoned lands, and Highly Sensitive Landscapes identified on the Development Plan Green Infrastructure Maps.

OBJECTIVE 5.3

Ensure development reflects and, reinforces the distinctiveness and sense of place of the landscape character types, including the retention of important features or characteristics, taking into account the various elements which contribute to their distinctiveness such as geology and landform, habitats, scenic quality, settlement pattern, historic heritage, local vernacular heritage, land-use and tranquility.

OBJECTIVE 5.4

Seek the protection and retention of trees, hedgerows and historic walls or other distinctive boundary treatments that contribute to the visual amenity and landscape character of the area.

OBJECTIVE 5.5

Protect, preserve and ensure the effective management of trees and groups of trees.

OBJECTIVE 5.6

Require the use of native planting where appropriate in new developments in consultation with the Council. Indigenous, non-invasive species should be considered to provide habitat for locally occurring fauna ensuring, at a minimum, there should be no net loss of the tree and hedgerow resource.

OBJECTIVE 5.7

Conserve the historic building stock, structures on the Record of Protected Structures and archaeological sites and features including those on the Record of Monuments and Places and their settings.

OBJECTIVE 5.8

Positively enhance the character of the area taking full account of the relevant ACA Statements of Character.

OBJECTIVE 5.9

Promote and facilitate appropriate interpretative concepts and signage illustrating the archaeological, built and natural heritage features adjoining the plan area, thus facilitating opportunities for education and understanding.

OBJECTIVE 5.10

Any application for development on the LAP lands shall be accompanied by an Archaeological Impact Assessment.

OBJECTIVE 5.11

Ensure that proposals for developments involving works to upstanding archaeological sites and features or works to the historic building stock include an assessment of the presence of bats in any such sites or structures and, where appropriate, ensure that suitable avoidance and/or mitigation measures are proposed to protect bats in consultation with the National Parks and Wildlife Service.

OBJECTIVE 5.12

To recognise the importance of the Natura 2000 and environmentally designated sites within the plan area with particular reference to the coastline, beaches and connecting waterbodies and to ensure that any proposals for development or uses which could compromise these natural assets are carefully considered and subject to Appropriate Assessment as required.

6.0 COMMUNITY INFRASTRUCTURE

6.1 COMMUNITY INFRASTRUCTURE

6.1.1 Study of the Community Needs of Donabate Peninsula

An Independent Study of the Community Needs of Donabate Peninsula was commissioned by Donabate-Portrane Community Research Steering Group and funded by Fingal County Council (November 2014). The Study was concerned with establishing a community profile for the Donabate-Portrane area, with a particular emphasis on identification of the community's needs and subsequent exploration of possible solutions to provide for these needs. Research would be used to inform local plans. Key areas of need/challenge identified include:

- Population growth of young people and children and the lack of activities / facilities.
- Concerns regarding security / crime / anti-social behaviour / substance abuse.
- Major infrastructural change such as the redevelopment of the grounds of St Ita's; increase in housing stock and population and the demands it will put on infrastructure and facilities.

These issues have been considered in the preparation of the LAP and the proposed new housing development.

6.1.2 Education, Childcare and Healthcare Facilities

Schools

There are 3 existing primary schools in Donabate at present – St Patrick's Boys School and St Patrick's Girls School located on the Portrane Road and the Donabate-Portrane Educate Together Primary School on the Beaverstown Road. Donabate Community College (Colaiste Pobail Domhnach Beathach) is the only post-primary school in Donabate, which opened in 2008 and is located adjacent to the Educate Together primary school.

Based on the potential housing units proposed on the LAP lands, the Department of Education and Skills has a requirement for 48 primary classrooms (3 x 16 classroom schools) and one post primary school (catering for 1,000 pupils). To provide educational infrastructure there are 3 no. primary school sites designated in the LAP at the following locations:

1. Corballis - east of the railway line.
2. Ballymastone – southern section.
3. Ballymastone – northeastern section (as part of Education/ Recreation Campus).

Each site shall have a general reservation of 5 acres in accordance with Department requirements. The Ballymastone Educational and Recreational Campus site offers a suitable location for the required post-primary school, given the existing sporting facilities at this location and the proposed consolidation and expansion of recreational facilities in this area. The co-location of schools, sporting and recreational facilities will be encouraged, and shall be examined in the detailed Masterplan design for the Ballymastone Campus.

There is an existing 10 acre Post Primary School site reserved in the FDP 2011-2017 positioned south of New Road / Balcarrick Road. Any changes or relocation of this school reservation would have to be considered in the context of the Development Plan review.



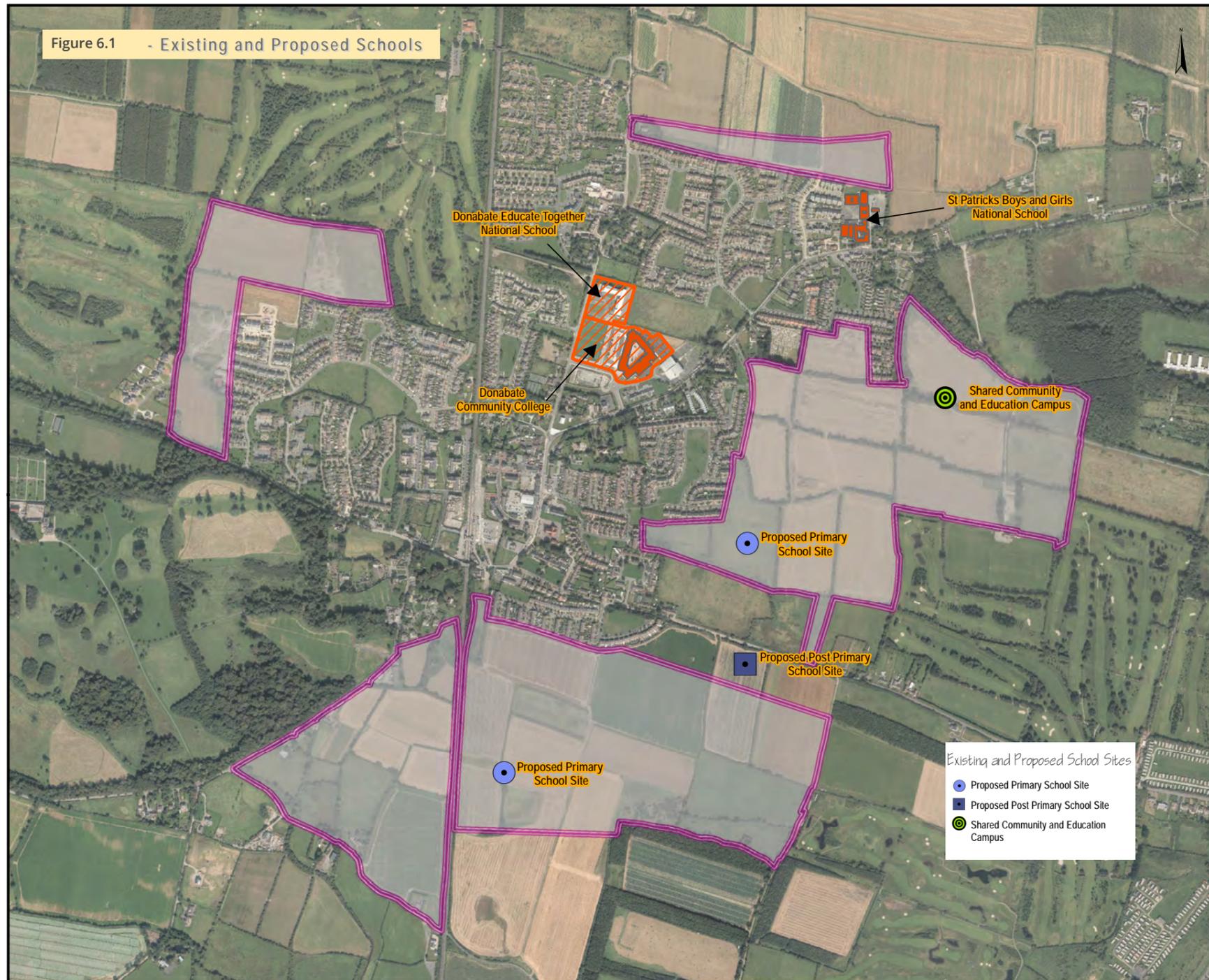


Figure 6.1: Existing and Proposed Schools, Donabate

Childcare Facilities

There are approximately 18 no. sessional montessori / pre-school facilities on the Peninsula, with many of these facilities located within existing dwellings (i.e. garages that have been converted to Montessori use). There are currently 2 full-day care facilities offering crèche and after-school facilities and there is a need for additional full-day care provision. Planning permission was granted under Reg Ref: F12A/0086 for a crèche facility to accommodate 42 no. children on LAP lands at Turvey. Permission was also granted on the LAP lands at Rahillion for a crèche facility to accommodate 25 no. children (permitted as part of application Reg Ref: F14A/0033).

It is an objective of the LAP to encourage the provision of full-day care / crèche facilities as part of any new residential development. One dedicated crèche facility will be required for every 75 no. units subject to existing supply provision. Crèches will be determined at planning application stage. The LAP would envisage Corballis Local Centre and Ballymastone Educational and Recreational Campus to be appropriate locations for such childcare provisions. The Council shall provide for dedicated full-day care crèche facilities and future childcare needs within the LAP lands.

Healthcare Facilities

There are two registered GP Practices and a dental practice in Donabate. Donabate Health Centre (run by the HSE) is located on St Patrick's Terrace in the Village. There is potential to locate additional services to support an increase in population within the village and at the proposed neighbourhood centre at Corballis.





Health Centre Donabate

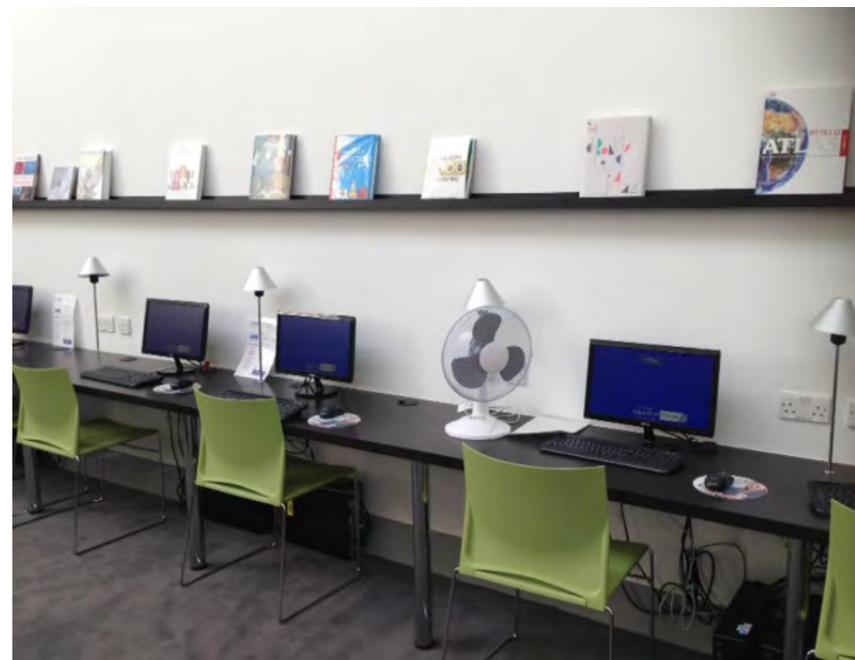


Donabate Portrane Library

6.1.3 Local Community Facilities And Sports Infrastructure

Donabate Library

Donabate Library opened at first floor level within the Donabate-Portrane Community Centre in April 2014. There has been significant investment in fit-out by the Council to develop the library facility to a high standard with all modern facilities in place. The library is centrally positioned within Donabate and will serve existing and future residents well.



Recreational Facilities

In addition to the natural and heritage amenity resources available in Donabate there are numerous established sporting clubs and recreational organisations which also provide an important local resource and make a significant contribution to the vibrancy of the Donabate community.



Balcarrick Golf Club operated by Fingal County Council

6.1.4 Proposed Community Facilities & Ballymastone Recreational Campus

Ballymastone Recreational Campus

St Patrick's GAA Club and St Ita's Football Club currently operate playing facilities at Ballymastone adjoining the south-western boundary of St. Ita's Demesne on a long term leasing arrangement with the Council. Both sporting clubs have established playing pitches and changing facilities at this location and are developing their clubs to take advantage of the future growth of Donabate and the potential for new members and players.

Ballymastone occupies a strategic location for such activities given its proximity to the existing Village and Schools, new residential development and planned road, pedestrian and cycle links to this area. The creation of a recreational and educational campus at this location takes advantage of existing facilities and its location.

The proposed Ballymastone Educational and Recreational Campus will provide additional facilities for the population of the Peninsula anchored by the consolidation of the two clubs and the development of new school facilities (as detailed above). The development of this campus will be led by the Council in partnership with local organisations, clubs, the Dept. of Education and the local community.

It is expected that the following facilities will be accommodated at Ballymastone:

- Consolidation and improvement of facilities for St Patrick's GAA Club and St Ita's AFC.
- Flood-lit All-weather/MUGA Pitch.
- School facilities.
- Playground.
- Running track.
- Community Rooms/space.

Access and Parking

The existing vehicular access route to the site at Ballymastone is substandard and a direct access from the west off 'The Links' road, which will traverse the Ballymastone Lands and terminate at the school / recreation campus would provide a more appropriate access. In addition, to improve vehicular access, good pedestrian and cycle access



Aerial image of St Ita's Football Club Lands, Ballymastone

will be provided across the LAP lands from the school sites in the west to the sporting facilities in the east, to ensure there is a coherent link between the schools and sporting facilities.

Further detail on the development of the Ballymastone LAP lands is given in Section 8 and Section 9.

6.1.5 Religious Buildings

The established places of worship in Donabate are at St Patrick's Church (Roman Catholic) which is located on the Main Street in Donabate Village (Protected Structure-RPS no. 512) and also St Patrick's Church of Ireland which is located off Turvey Avenue adjacent to Newbridge Square and Demesne.

6.2 ECONOMIC INFRASTRUCTURE

Donabate is identified as a Level 4 Centre (in the *Retail Strategy for the Greater Dublin Area, 2008-2016* and *Fingal Retail Strategy, App 2, FDP 2011-2017*) and a 'Moderate Sustainable Growth Town' within the Metropolitan Area under the RPG's (*Regional Planning Guidelines for the Greater Dublin Area 2010-2022*). It currently has a compact retail area centred on a small shopping centre anchored by Supervalu. The retail offer is predominantly local, independently operated convenience floorspace with supporting services. The FDP 2011-2017 notes that Donabate should aim to become more self-sufficient and evolve to provide an increasing range of retail floor space in tandem with any increase in its population.

The *Donabate Urban Centre Strategy (UCS) 2010* provides detailed guidance in relation to the development of the village centre. It identifies character areas in the Donabate urban area, with the retail area centred along Main Street. It is noted that the commercial buildings fronting the street generally comprise shops on the ground floor with offices/restaurants at first floor level. There is no uniformity in the architectural style of materials used in the commercial buildings, although red (Portmarnock) brick is common to both commercial and residential buildings in the general area. The UCS provides detailed guidance on objectives for the Village including: traffic management, car parking strategy, environmental improvements, public realm and a high quality of urban design. It also seeks the formation of a comprehensive network of pedestrian and cycle ways.

Overall, there is significant potential for increase in floorspace and growth of the village area through site assembly and development of derelict/underutilised sites in the future. It is the strategy of the LAP to support the consolidation of the existing village in Donabate as the focus for retail, commercial and services development. This will be supported by the creation of strong road, cycle and pedestrian links to the Village and planned geographical expansion of the new housing areas. The new development areas are all less than 1km from the village core and their population will be integrated into the established functioning of the village for shopping and services activity. The development of the LAP lands and the resultant increase in population will encourage and support the re-development of infill and vacant / undeveloped sites in

the Village Centre and the LAP will encourage new retail and economic opportunities to locate in Donabate urban centre.

6.2.1 Corballis Local Neighbourhood Centre

A new local neighbourhood centre is proposed in Corballis adjoining the primary school and it is intended to serve the local needs of the new housing population. However retail floorspace at Corballis will be limited to neighbourhood centre level and as such, should not be anchored by a supermarket or large convenience store. The local centre at Corballis will instead accommodate a number of smaller, local retail units which shall encompass both food-stores (i.e. local convenience shopping including butcher / bakery) and important non-food outlets such as pharmacies, cafes, restaurants etc. Future retail / service provision within this local centre must be consistent with the requirements of the Level 5 category - 'Local Shops/Small Villages' as set out in the Fingal Retail Hierarchy. The agglomeration of these units to provide one large retail unit will not be permitted and larger retailers (> 300 sq m) will be directed to the Donabate Village core.

A residential component is envisaged within the local centre and therefore the design of this area should have regard to impacts on residential amenity with respect to privacy, daylight/sunlight and visual outlook. The combination of mixed uses, including residential, local commercial and community use (school site) will encourage vitality and vibrancy within this urban space. The proposed green route linking the Broadmeadow Way to Donabate Village will pass through this civic space, which will bring people to the area. Some small local service provision may also be provided within the Ballymastone lands, to serve local population needs.

6.2.2 Live-Work Units

The inclusion of small-scale purpose-designed live-work units, within and adjacent to the smaller local centre at Corballis will be encouraged to help to reinforce its function and to provide small scale employment opportunities within the LAP lands at this location. It is envisaged that any future employment uses within the plan lands will be small scale in nature having regard to the residential zoning objective of the plan lands and the focus on retail and commercial development to locate within the Village Centre.

Importantly, there is a strategic land parcel connecting LAP lands at Corballis (east of the railway) northwards to the railway station, Main Street and village core. These lands (to the rear of the Smyths Pub) are zoned Town Centre (Objective 'TC') in the FDP 2011-17 and are identified for regeneration in the *Donabate Urban Centre Strategy (2010)*. They will provide a strategic route to the village core from Corballis to the south but also offer potential for strong integration of new development into



the fabric of the Village. The future development of these lands as an extension to the commercial area of the village can be encouraged by ensuring that there is flexibility to allow mixed uses to locate in this area. The LAP will support the development of flexible live-work units on lands proximate to these zoned 'TC' lands (i.e. buildings that can accommodate conversion between business and residential uses). This can be accommodated in design terms by increased floor to ceiling heights for ground floor units, strong public realm and public interface for buildings, flexible elevational treatments and will encourage the organic growth of the commercial area of the village.

Residential accommodation alongside purpose-designed work space reduces overall expenditure on accommodation and the need to travel, generating savings in terms of costs and time, contributing to a more environmentally sustainable way of life. The development of small businesses can play an important role in promoting local employment opportunities. In the early stages of business start-up it is sometimes necessary or appropriate for enterprises to be run from home.

Examples of enterprises which may be suitable for location in live-work units include photography studios, arts and crafts industries, home-based economic activities, architecture and graphic design studios, software development and animation companies, i.e. limited public access to avoid any negative impact on residential amenity or parking / traffic in this area. These type of units offer potential tenants and residents flexibility and use-evolution as the need arises.

The Corballis and Ballymastone development areas also offer potential to provide this sustainable form of development integrated into the more traditional housing format. Opportunities shall be explored within the LAP lands to facilitate such home-based economic activity, when considering the design of new houses and the layout of new housing neighbourhoods. Home-based economic activity will be encouraged but will be subject to impact on residential amenity and other relevant development management criteria.

The Planning Authority will also encourage the provision of shared serviced office space where people working remotely can rent desk space on a short-term basis. Appropriate locations include the Donabate Village Centre and Corballis local neighbourhood centre.

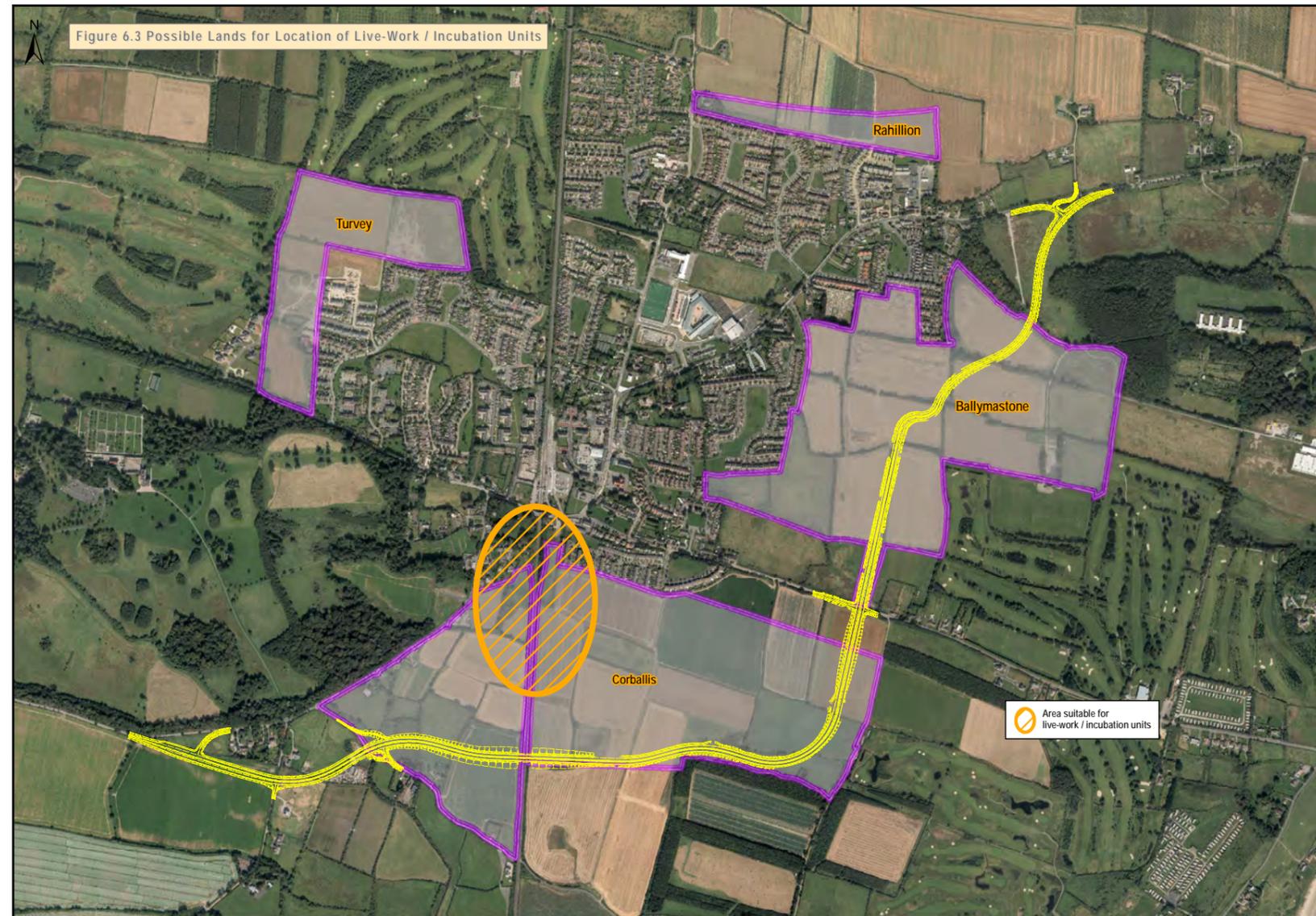


Figure 6.3 Lands suitable for the location of live - work units



Examples of Live-Work Units (source: <http://www.etowns.ie/media/Media,7057,en.pdf> www.bristolrising.com and www.sellmodern.com)

6.2.3 Fingal Local Economic and Community Plan (LECP) 2016-2021

This Plan was adopted in December 2015 and it is the first integrated economic and community development plan for the County. The plan is built upon the understanding that economic, local and community development are mutually supportive in building sustainable communities with strong local economies. The plan promotes a collaborative leadership approach across a broad range of publically funded agencies and civil society stakeholders to achieve improved outcomes and impacts for citizens, businesses and communities. This is the first LECP for the Fingal local authority area. It is designed to promote and support the economic and the local and community development of Fingal over the period 2016-2021. Fingal LECP is designed to identify and prioritise the objectives and actions needed to promote and support the economic development and the local and community development of the county. The LECP is not an operational plan, but seeks to achieve its objectives by working in partnership with all of the key economic and community development stakeholders that serve the county, including Fingal County Council.

The LECP has a six year time frame and its contents are required to align with Fingal Development Plan. It is envisaged that the LECP will provide a focussed emphasis on local economic development including actions and measures to ensure its promotion and facilitation. One of the objectives of the LECP is to 'Consolidate the development and protect the unique identities of the settlements of Howth, Sutton, Baldoyle, Portmarnock, Malahide, Donabate, Lusk, Rush and Skerries' which is consistent with policies and objectives included within this LAP and with the 'Draft Fingal Development Plan 2017-2023'.

6.3 TOURISM

6.3.1 Fingal Tourism Strategy 2015

While the natural amenity and recreational base is present in Donabate, it is somewhat fragmented both physically and from a marketing perspective and lacks integration with the rest of Fingal. The area has excellent potential for integrated outdoor activities: sailing, kite/wind surfing, walking/cycling, bird watching, angling, golfing, eco/food trails, all of which can be packaged collaboratively to achieve an attractive and vibrant tourism product, to be promoted as part of the strategy under the Fingal Coastal Way.

Fingal Coastal Way

The Fingal Coastal Way is envisaged as a greenway, carrying day trippers / tourists along the Fingal coastal corridor in an eco-friendly way, offering an opportunity to showcase the beauty and heritage of the area whilst providing important economic-related development and employment.



An image of the Royal Canal Greenway - Ashtown to Castleknock (Source: Atkins Ireland)

The Fingal Coastal Way will provide many opportunities for the development of the tourism product in the County and within each of the coastal compartments that it traverses:

- There is an intrinsic recreational value in such a route for walking and cycling and its value as an amenity increases as it makes other recreational resources accessible at the same time. The Fingal Coastal Way when complete will provide a continuous link between the recreational Demesne parks of Malahide, Newbridge and Ardgillan, Turvey Nature Reserve, the proposed Balleally Regional Park and Rogerstown, Malahide and Baldoyle Estuaries. The many historic and cultural sites along the route will also benefit from enhanced accessibility.

- The Fingal Coastal Way will provide a major recreational and leisure facility in its own right and has the potential to become a major day trip/tourist attraction within the Dublin region. The Coastal Way would link with existing pedestrian/cycle routes (including the proposed Broadmeadow Way, the Swords-Malahide-Sutton cycleway, etc), Dart and suburban rail stations in the wider Fingal area as well as the Dublin City environs that borders Fingal, thereby opening up the coastal corridor not only to residents of Fingal but to residents of Dublin City.
- It offers the potential to develop a number of niche tourism trails based on local foods, arts/crafts, heritage, ecology and leisure pursuits found along the coast.
- It is envisaged that, with the development, sustainable management and promotion of a Fingal Coastal Way the environmental and economic benefit to Fingal would be very significant and would generate significant economic activity and create employment through festivals and cultural events.
- The proposed route of the Fingal Coastal Way on the Donabate Peninsula lands is identified in Section 4.

The proposed Broadmeadow Way linking Malahide Demesne to Newbridge Demesne also has the potential to create a huge increase in visitors to Donabate Peninsula.

6.3.2 Newbridge Demesne

Newbridge Demesne hosts a number of annual events, including the 'Flavours of Fingal' County Show and festive events at Halloween, Christmas, Easter and during school holiday times /mid-term breaks. Improved and ongoing advertising, marketing, branding and event management is increasing the number of visitors attracted to the facility. It is considered that the estate has the capacity to offer a range of experiences for different target groups that will improve its attractiveness as a regional tourist destination for visitors.

The Fingal Tourism Strategy 2015-2018 notes strategic objectives to improve the visitor experience at Newbridge Demesne. A €1.5m investment programme is underway at Newbridge Demesne to provide a new visitor reception area, an enlarged, upgraded coffee shop and an educational facility to cater for school tours.

Proposed new infrastructural improvements as part of this LAP will support and encourage movement around Donabate and strengthen the integration of the Demesne with the Village. In particular, the proposed new bridge link for pedestrians and cyclists from Newbridge Demesne through Corballis LAP lands to the Village will provide a strong

and attractive connection for tourists and local residents to travel between these destinations. This will be reinforced by the design of development along this route to encourage activity and legibility by the public (Figure 8.4 illustrates this link in more detail).



Newbridge House

enjoy the fantastic food
learn all about the farm
great fun for the family

Food Garden
Farm displays & Livestock competitions
Expert Corners & Demonstrations
Newbridge Traditional Farm

flavours of fingal

July 21st & 22nd
11am - 5:30pm
Newbridge House & Farm Donabate

Comhairle Contae Fhine Gall
FINGAL DUBLIN
FINGAL FARMERS
eagasc

SPONSORED BY
FIBD Keelings Bank of Ireland daa Country Crest

SUPPORTED BY
National Lottery European Union

COMMUNITY INFRASTRUCTURE OBJECTIVES

OBJECTIVE 6.1

Implement Childcare Guidelines, as appropriate and support the provision of childcare and education facilities at appropriate locations and as required.

OBJECTIVE 6.2

Provide an education, sporting, recreation and community development in a campus environment at Ballymastone which supports the consolidation of existing sporting facilities and includes an All-Weather pitch, a full sized running track, new school development together with shared supporting infrastructure, in line with an agreed Masterplan.

OBJECTIVE 6.3

To support the provision of a new Church and Community Facility on lands at Ballymastone.

OBJECTIVE 6.4

To provide for the integration of the Corballis LAP lands focusing on pedestrian, cycle and public realm linkages with the core village of Donabate.

OBJECTIVE 6.5

Provide a neighbourhood centre at Corballis to provide for local services incorporating adaptable floorspace capable of change from residential to commercial use.

OBJECTIVE 6.6

Support the provision of a public/civic open space of sufficient size at Corballis to be a central design feature.

OBJECTIVE 6.7

Facilitate the provision of local cultural spaces, performance and entertainment spaces, while protecting the existing amenities of the area.

OBJECTIVE 6.8

Require development in Ballymastone and Corballis neighbourhoods to provide flexible 'live & work' residential units at appropriate locations. These units shall be capable of conversion in part to appropriate commercial use in tandem with residential use and to permit appropriate home-based economic activities that do not result in loss of amenity in terms of traffic generation, residential amenity, noise levels and visual amenity.

OBJECTIVE 6.9

Facilitate the development of appropriate new recreation, leisure, tourism and service facilities and ensure access for all groups of the community.

OBJECTIVE 6.10

Promote and facilitate the development of the Fingal Coastal Way as a local and tourist amenity, promoting the archaeological and cultural heritage of the area and associated events in appropriate locations, subject to screening for Appropriate Assessment.

OBJECTIVE 6.11

Support the consolidation of Donabate Village as the focus for retail, commercial and services development on the Peninsula.

OBJECTIVE 6.12

Support the provision of a Community / Cultural / Exhibition and Performing Arts Centre for Donabate-Portrane and encourage the development of multi-functional community buildings which are not used exclusively by any one group.

OBJECTIVE 6.13

Support the local communities of Donabate and Portrane to develop a Donabate-Portrane Heritage Trail both for the enjoyment of local people and as an attractor for visitors to the area, promoting local economic development.

OBJECTIVE 6.14

Promote and enhance the visitor experience and amenities at Newbridge House and Demesne within the context of the Demesne's heritage importance and values.

OBJECTIVE 6.15

Liaise and coordinate with Fingal's Local Community Development Committee, the Economic Development and Enterprise SPC and the Local Enterprise Office to ensure that themes and goals included in the Local Economic Community Plan are supported by policies and objectives in the LAP, as appropriate.

OBJECTIVE 6.16

Prepare an Urban Framework Plan for Donabate (including a Public Realm and Integrated Traffic Management Strategy) to guide and inform future development, to include measures to improve and promote the public realm of the Village.

OBJECTIVE 6.17

Support and promote the potential of the all-weather facility at Ballisk.

OBJECTIVE 6.18

To provide for and facilitate for the extension of the existing cemetery on the eastern side to include a new separate entrance, car parking and associated works/footpaths subject to Hydro and Geological analysis.

7.0 WATER AND DRAINAGE

Adequate services are essential to development. This section outlines the existing public water supply, wastewater, flood risk management and other key infrastructure requirements in the Donabate area and will set out the requirements needed in infrastructure to serve the proposed development in the area. Adequate and improved infrastructural services to the Donabate LAP area will be provided in a phased approach. The Council will work with utility providers to ensure that lands can be serviced, when required.

This Section examines water supply sources and network and surface water management (including Sustainable Urban Drainage Systems (SUDS) and Flood Risk Management).

7.1 WATER SUPPLY SOURCE AND NETWORK

Irish Water is Ireland's new national water utility which is responsible for providing and developing water services throughout Ireland.

Supply and demand for high quality drinking water is finely balanced across the region and this will remain the case in the short to medium term pending the delivery of a number of projects to increase production, storage and delivery capacity. The 'Water Supply Project Eastern and Midlands Region' is currently at the project planning stage with Irish Water and there is a need for a new water supply to service projected demand in Irish Water's Eastern and Midlands Region.

The need for a water supply from a new source has therefore been established, with the aim to have a Phase 1 scheme in place by 2021 (Irish Water: A Working Paper on Options Appraisal).

7.1.1 Water Supply Network: Donabate

Donabate / Portrane is currently served via a single 12" AC Main which was laid in the 1970's and runs along the Hearse Road. A second connection is required to maintain and improve the quality and security of the water supply. The Donabate Augmentation Scheme provides for a 300mm Diameter watermain from the 21" AC trunk main along the R132 at Turvey Avenue to connect to the existing system adjoining the Railway Station at Turvey Avenue. This scheme has not been completed to date and is not scheduled for inclusion in any programme.

New development and/or works will need to demonstrate that the existing network and associated wayleaves are protected from impacts which could put the network at risk of damage. Any proposal to develop site(s) not immediately adjacent to existing water supply infrastructure will have to address the issue of providing a suitable water supply.

The Donabate / Portrane area is a pressure controlled zone and buildings over 2 storeys or at a high elevation may require internal

boosting. The Strand Estate is the critical point in the District Metering Area. Any future high level development (i.e. above two storeys or higher than The Strand Estate) could be problematic to supply.

Any application for proposed development in this area should submit a pre-connection enquiry to Irish Water to determine the capacity and any works required to service the development.

The delivery of a number of measures to sustainably manage water demand is also important. In order to limit unnecessary water usage, leakage and excessive consumption, new commercial developments should, where feasible, install suitable water conservation measures.

7.1.2 Wastewater Network and Treatment

Phase 1 of the overall 'Portrane-Donabate Rush and Lusk (PRDL) Waste Water Treatment Scheme' has been completed and as part of this scheme, a new Portrane Wastewater Treatment Plant (WWTP) has been constructed immediately south of St Ita's Hospital. It has the provision to cater for 65,000 population equivalent (PE). At present the loading is approximately 35,000 PE. The Donabate LAP lands are included within the Portrane Wastewater Treatment Plant (WWTP) catchment. Wastewater generated from the development of the LAP lands will be directed into this new WWTP facility.

The provision of a new expanded foul sewer network and associated new foul pumping stations will be required for the LAP lands. New Pump Stations (PS) have been constructed in Donabate (Donabate PS) and on the R126 between Donabate and Portrane (Portrane PS). These pump stations are fully automated and are linked by telemetry to the operators of the WWTP.

Phase II of the PDRL Waste Water Treatment Scheme includes a proposal for the Ballalease PS to be constructed on Balcarrick Road adjacent to the proposed Donabate Distributor Road crossing. The preliminary design also indicates that another pump station would be required south of the proposed Ballalease PS provisionally called the Donabate South PS. No size has been given for this PS and it will be required to deliver the effluent from the zoned lands at Corballis East and West to the Ballalease PS. This PS could be designed and sized to provide for Ballymastone and Corballis lands. It is expected that the proposed pump stations will be constructed to the same high standard as the Donabate and Portrane pumping stations and will cater for storm flows in such a manner as to severely curtail any overflows.

All development shall be drained on completely separate systems, i.e. foul and surface water flows shall be directed to separate pipes. This reduces the possibility of flooding of the foul pipelines during times of extreme rainfall events as the foul network should only contain foul flows and not surface water.

The detailed design of new pumping stations and associated outfalls will be subject to planning approval, Appropriate Assessment and Foreshore License, where appropriate.

7.1.3 Odour and Noise Control Buffer Zone

Lands adjoining pumping stations may be subject to an odour and noise nuisance. Buffer zones around these plants for odour sensitive developments such as houses, schools, nursing homes etc., should be provided. These zones should be 50m as measured from the odour producing unit of the proposed pumping station to existing and future development. Non-sensitive uses may be permitted within the buffer zone.

7.2 SURFACE WATER MANAGEMENT

7.2.1 Surface Water Catchments & Drainage Networks

The peninsula is drained by a combination of watercourses and surface water drainage networks. Surface water management is the responsibility of the Council.

The existing development within the Donabate area is served by a network of surface water pipes which discharge to the watercourses referred to below, or to the two major trunk sewers. There are two surface water drainage networks from Donabate Village outfalling directly to the Rogerstown and Malahide Estuaries. A 1350mm diameter pipe which conveys the surface water runoff from the north-eastern section of Donabate Village outfalls to the Rogerstown Estuary (Catchment 3 on Figure 7.1). Part of the Rahillion LAP lands are included within this catchment area.

A 450mm diameter pipe, draining The Strand on the southern boundary of the village outfalls to the Malahide Estuary, south of the Village (Catchment 6 on Figure 7.1). The central portion of the Corballis LAP lands are included within the catchment of the 450mm diameter pipe.

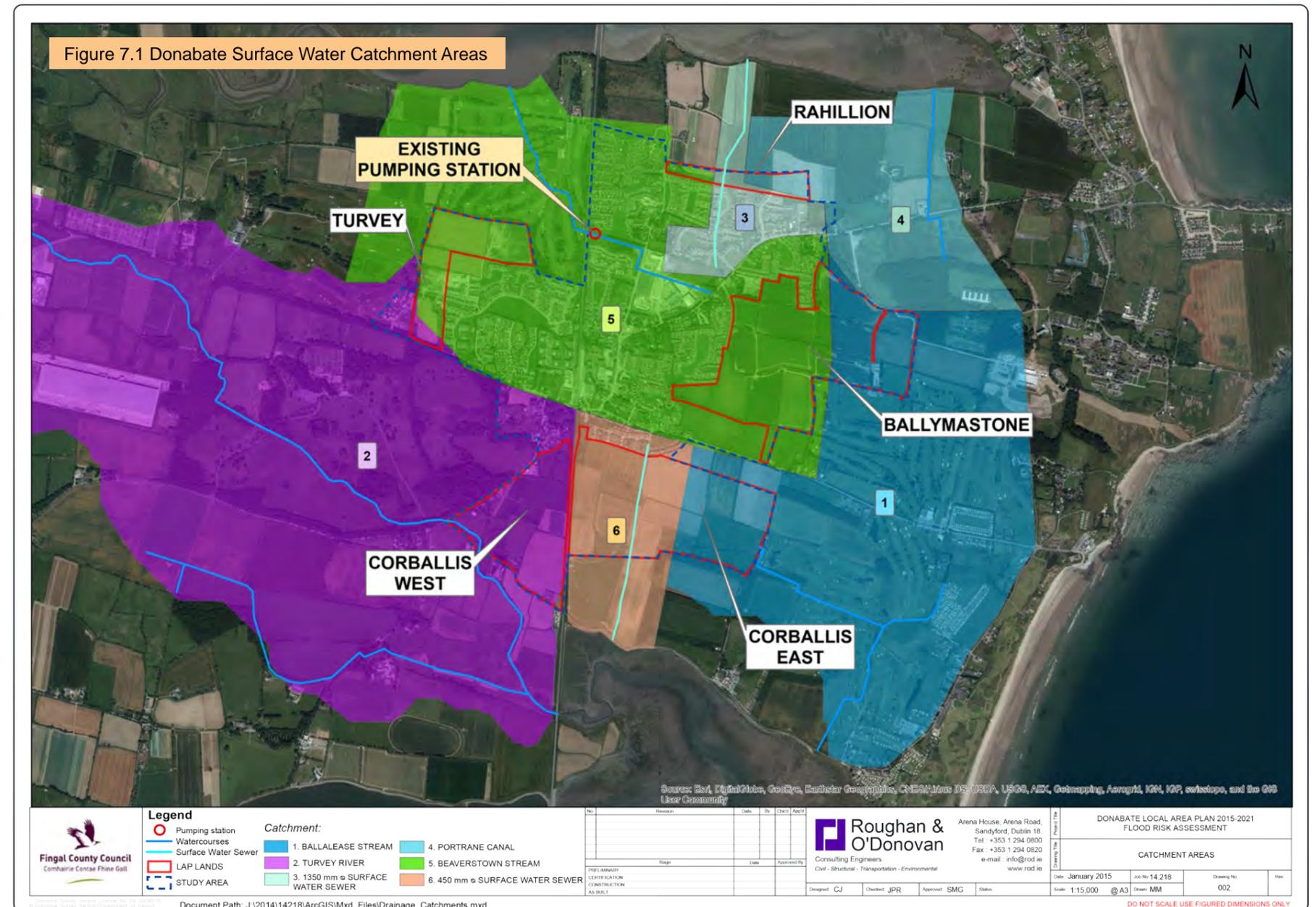


Figure 7.1 Surface Water Catchment Areas on the Peninsula.

Beaverstown Stream

The primary water course is the Beaverstown Stream which flows from the centre of Donabate Village to Rogerstown Estuary, c 750m to the northwest. The catchment area of this stream is approximately 275ha with a main channel length of approximately 1.5km (Catchment 5 on Figure 7.1). The majority of the surface water drainage network serving Donabate outfalls to this stream and flows to a pumping station at the north-west corner of the village.

Beaverstown Pumping Station

Planning permission has been granted for a new pumping station incorporating: a mechanical screen, oil interceptor, backup generator, duty, assist and standby pumps each capable of pumping at 630 cubic metres per hour (compared to the existing discharge rate of 400 cubic metres per hour). The ditch running parallel to the Dublin / Belfast railway line south of the Beaverstown Stream will be diverted eastwards to outfall upstream of the pumping station inlet. The existing pumping station will then be demolished following commissioning of the new pumping station. The images below show the location, plan and elevation of the proposed pumping station at Beaverstown.

Turvey Stream

The Turvey Stream flows into the Malahide Estuary and the catchment area is approximately 13 sq km, with a main channel length of 9.6km (Catchment 2 on Figure 7.1). The catchment is predominantly greenfield with a small section of Donabate Village within the catchment boundary.

Portrane Canal

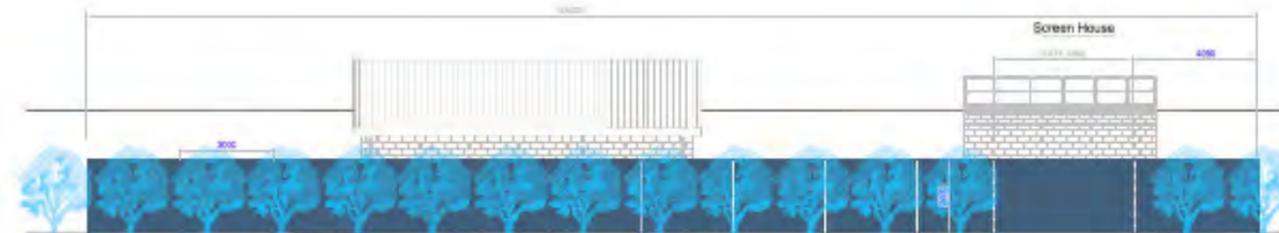
The Portrane Canal has a catchment area of approximately 70ha and drains mainly agricultural lands (Catchment 4 on Figure 7.1). This canal has a main channel length of approximately 890m and outfalls to the Rogerstown Estuary. A section of the Rahillion LAP lands are drained by the Portrane Canal.

Ballalease Stream

The eastern LAP lands (including parts of Ballymastone and Corballis East) are drained by the Ballalease Stream and a network of open ditches flowing through Donabate and Balcarrick Golf Clubs before outfalling to the Malahide Estuary (Catchment 1 on Figure 7.1).



Proposed Pump Station at Beaverstown



Screen house

7.2.2 Surface Water Management

In keeping with the Greater Dublin Strategic Drainage Study (2005), Sustainable Urban Drainage Systems (SUDS) techniques will be incorporated into the development of the LAP lands. Integration of SUDS techniques within these new developments will be required to ensure that the capacity of the existing network is not exceeded and the quality of the surface water runoff is not negatively impacted by the development.

The primary impact on the existing surface water and foul drainage networks will be as a result of the new residential development around the perimeter of Donabate. Water quality is a significant issue for a host of reasons, including human health, wildlife conservation, amenity and recreational use and is therefore a central focus in striving for sustainable development. New development has the potential to add to flood risk in an area if it leads to an increase in surface water run-off.

Based on the existing surface water drainage network and topographic levels obtained from contour mapping, it is likely that the majority of the LAP lands will outfall to downstream ends of the existing surface water drainage network. Where the new surface water drainage network for the LAP lands is connecting to the existing surface water network in Donabate, the capacity of the existing network will need to be established at these locations and discharge from the developments limited to acceptable flow rates.

The quality of any runoff from any new development will need to be such that the environmentally sensitive areas of Malahide and Rogerstown Estuary are not negatively affected.

7.2.3 Sustainable Urban Drainage System (SUDS Strategy)

The use of sustainable urban drainage systems (SUDS) produces multiple benefits in terms of enhanced biodiversity, reduced peak flows, water quality improvements and improved ecology. SUDS are surface water drainage systems designed with a focus on sustainable development and the purpose is to replicate, as best as possible, the natural drainage system prior to the development taking place. The three main objectives of SUDS are to:

- Minimise the impacts of the development on quantity of run off.
- Minimise the impacts of the development on quality of run off.
- Maximise the amenity and biodiversity opportunities.

SUDS offers an opportunity to create attractive landscaping features which offer a variety of amenity, biodiversity and recreational benefits, including ponds, wetlands, green roofs and bioretention areas (primary processes) and filter strips, swales, detention basins and infiltration basins (benefits subject to design).

A Management Train approach shall be adopted in the design of the proposed surface water regime by utilising suitable SUDS mechanisms in providing Prevention, Source Control, Site Control and Regional Control. The principle of the Management Train is that wherever possible, surface water should be managed locally in small, sub-catchments rather than being conveyed to and managed in large systems further down the catchment.

Table 7.1 below illustrates SUDS Techniques for Source, Site and Regional Control.

Source Control	Site Control	Regional Control
Rainwater Harvesting	Permeable Paving	Detention Ponds
	Bioretention Strips	Retention Ponds
	Infiltration Trenches	Wetlands
	Filter Drains	Infiltration Basins
	Filter Strips	Detention Basins
	Swales	Petrol Interceptors
	Sand Filters	
	Infiltration Basins	
	Detention Basins	
	Petrol Interceptors*	

**Use of Petrol Interceptors should be avoided except where the potential for hydrocarbons entering the surface water drainage network is particularly high. Treatment of surface water run-off should be provided through the use of other SUDS technique.*

The surface water discharge rate from the development land should not exceed existing greenfield run-off rates. Runoff must pass through at least one level of treatment using a SUDS component prior to the final level of treatment in the public realm areas.

A SUDS Strategy for the LAP lands was commissioned by the Council and undertaken by Roughan & O'Donovan, Consulting Engineers. The 'Donabate LAP SUDS Strategy' recommends various SUDS measures for utilisation within the LAP area. (See Appendix 5). Suitable Management Trains were recommended for the LAP areas and are detailed below.

Table 7.2 – Recommended Management Train for LAP Areas

AREA	SUB-CATCHMENT TYPE	SOURCE CONTROL	SITE CONTROL	REGIONAL CONTROL
TURVEY LAP LANDS	Roofs	Water Butts	Existing Ditches Swales	Ponds Wetlands
	Parking Areas	Permeable Paving	Existing Ditches Swales	Ponds Wetlands
	Roads		Filter Drains Swales Bioretention Areas	Ponds Wetlands
	Green Areas (low permeability subsoil)	Filter Drains	Existing Ditches Swales	Ponds Wetlands

AREA	SUB-CATCHMENT TYPE	SOURCE CONTROL	SITE CONTROL	REGIONAL CONTROL
RAHILLION LAP LANDS	Roofs	Water Butts	Swales	Existing Petrol Interceptor
	Parking Areas	Permeable Paving	Swales	Existing Petrol Interceptor
	Roads		Filter Drains Swales Bioretention Areas	Existing Petrol Interceptor
	Green Areas (low permeability subsoil)	Filter Drains	Swales	Existing Petrol Interceptor

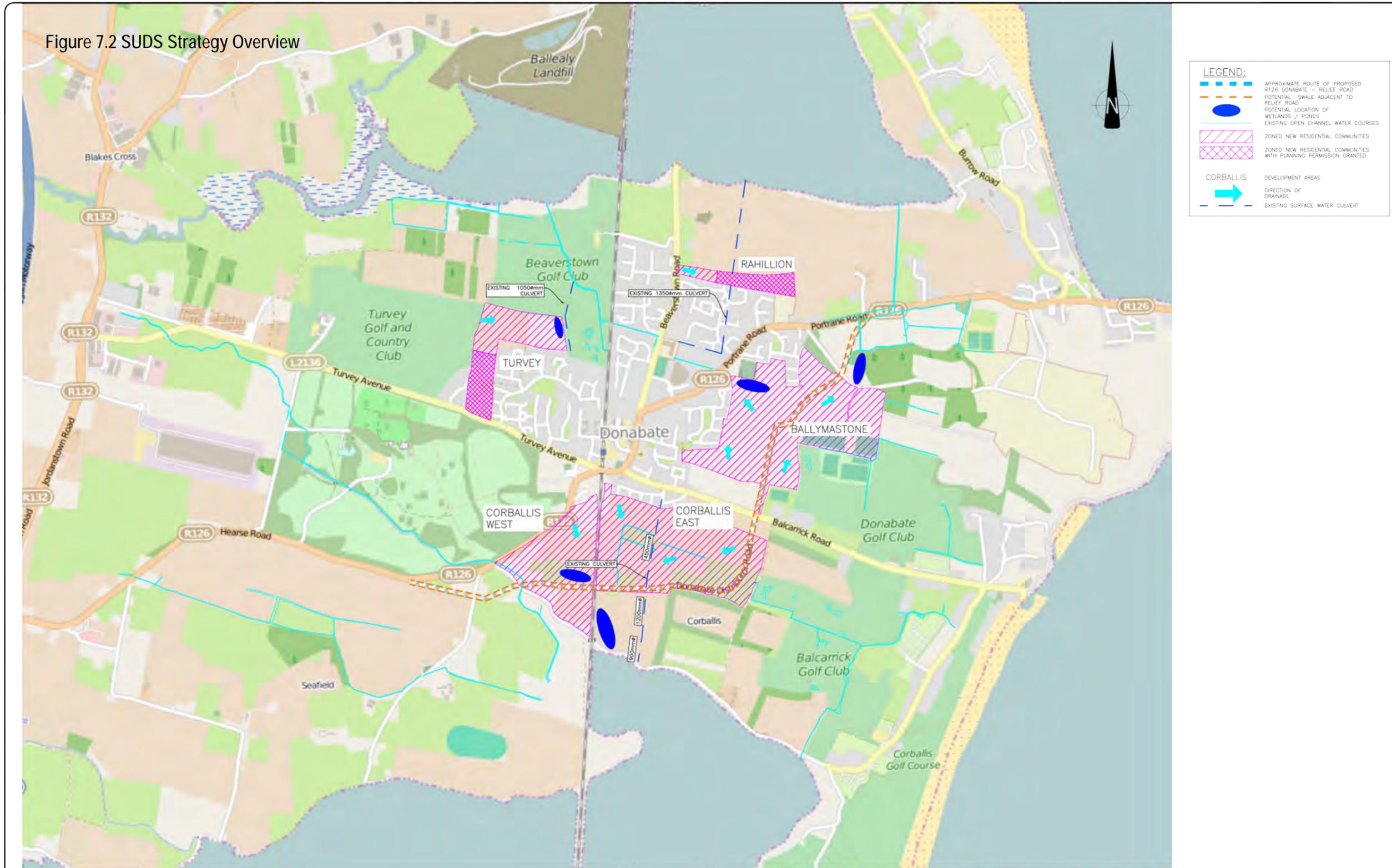


Figure 7.2 – Suds Strategy Overview

AREA	SUB-CATCHMENT TYPE	SOURCE CONTROL	SITE CONTROL	REGIONAL CONTROL
BALLY-MASTONE LAP LANDS	Roofs	Water Butts Rainwater Harvesting Green Roofs	Swales Detention Basins	Ponds Wetlands
	Parking Areas	Permeable Paving	Swales Detention Basins	Ponds Wetlands
	Roads		Filter Drains Swales Bioretention Areas Detention Basins	Ponds Wetlands
	Green Areas (low permeability subsoil)	Filter Drains	Swales Detention Basins	Ponds Wetlands

AREA	SUB-CATCHMENT TYPE	SOURCE CONTROL	SITE CONTROL	REGIONAL CONTROL
CORBALLIS EAST LAP LANDS	Roofs	Water Butts Rainwater Harvesting Green Roofs	Swales Detention Basins	Ponds Wetlands
	Parking Areas	Permeable Paving	Swales Detention Basins	Ponds Wetlands
	Roads		Filter Drains Swales Bioretention Areas Detention Basins	Ponds Wetlands
	Green Areas (low permeability subsoil)	Filter Drains	Swales Detention Basins	Ponds Wetlands

AREA	SUB-CATCHMENT TYPE	SOURCE CONTROL	SITE CONTROL	REGIONAL CONTROL
CORBALLIS WEST LAP LANDS	Roofs	Water Butts	Swales	Ponds Wetlands

	Parking Areas	Permeable Paving	Swales Detention Basins	Ponds Wetlands
	Roads		Filter Drains Swales Bioretention Areas Detention Areas	Ponds Wetlands
	Green Areas (low permeability subsoil)	Filter Drains	Swales Detention Basins	Ponds Wetlands

The above tables provide guidance for the proposed SUDS Management Trains. It is not possible to provide sizings and layouts of 'source' and 'site controls' until proposed layouts of each development are provided. The above measures should be incorporated into any new development within the LAP areas.

Given the Council's commitments under the Water Framework Directive to improve the quality of the water in the Rivers in Donabate (River Pill, Beaverstown Stream and Turvey River) and the International and National designations which apply to the Malahide and Rogerstown Estuaries, the criterion of Water Quality is a key factor in the design of the storm water system to serve the development of the LAP lands. In accordance with the Greater Dublin Strategic Drainage Study, it is a requirement that surface-water discharge rates are limited to green-field rates for the development areas. This requirement is best achieved by properly incorporating SUDS techniques into the design of future development.

Streets play an important drainage function within the proposed new built-up areas within the LAP lands and the incorporation of SUDS elements into the fabric of the street itself can also serve to increase legibility and add value to a place. (DMURS, pg 84, March 2013).

Having regard to the sensitivity of the receiving waters of Rogerstown and Malahide Estuaries, the SUDS Strategy recommends a Management Train whereby runoff will pass through a series of SUDS techniques prior to outfall. The early provision of Regional SUDS measures proposed in this strategy including the proposed wetland at Corballis (Corballis Nature Park area) shall be a priority in the initial phases of development.

7.2.4 Maintenance of SUDS Devices

Like all drainage systems, SUDS components should be designed for inspection and future maintenance. This ensures efficient operation and prevents failure. Usually, SUDS components are located on or near the surface and most can be managed using landscape maintenance techniques. For below-ground SUDS, such as permeable paving the manufacturer or designer should provide maintenance advice. A commitment to the long term maintenance of the drainage system should be established at the early stages in the planning process. This should include routine and long-term actions, which can be incorporated into a maintenance plan. Maintenance plans should be developed prior to the adoption of all systems and should be submitted with future planning applications within the LAP lands. If SUDS devices are incorporated into new private properties then information on the devices and a general maintenance plan for the devices must be given to the purchaser and / occupants.

7.2.5 Flood Risk Management

Flood risk is a combination of the likelihood of a flood event occurring and the potential consequences arising from that flood event and is then normally expressed in terms of the following relationship:

$$\text{Flood Risk} = \text{likelihood of flooding} \times \text{consequences of flooding.}$$

The Department of Environment, Community and Local Government and the OPW have jointly published a comprehensive guidance document for the management of flood risk entitled *The Planning System and Flood Risk Management Guidelines* (November 2009) which is aimed at ensuring a consistent, rigorous and systematic approach to fully incorporate flood risk assessment and management into the planning system. The Guidelines require the incorporation of flood risk management in the plan-making and development management processes and the Planning Authority should have regard to the planning and development principles outlined in the national flood risk management guidelines when considering development proposals.

In accordance with the above guidelines, a Strategic Flood Risk Assessment [SFRA] was commissioned by the Council and undertaken by Roughan & O'Donovan, Consulting Engineers to assess flood risk within and adjoining the plan area as part of the LAP preparation process. (Appendix 4 refers.) The study assessed the various flood risk data available including the following:

- OPW flood database and maps (www.floodmaps.ie).
- OPW Preliminary Flood Risk Assessment (PFRA) maps and the