

HODSON BAY CONSTRAINTS STUDY AND PREFERRED OPTIONS REPORT- 2023 - 2040

Hodson Bay

Prepared for: Roscommon County Council

Client Ref: 501.00765.0001

SLR Ref: 501.00765.0001
June 2023



BASIS OF REPORT

This document has been prepared by SLR Consulting Ireland with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with Roscommon County Council (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

Revision Control Table

Rev. No.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date
Working Draft – REV 2	General Edits	AOB	EG		
Final Draft for Steering Group Approval	Edits to environmental constraints and financial viability sections	AOB			May 2023
Final Edits to finance elements		JR	AOB		May / June 2023

Client: Roscommon County Council

EXECUTIVE SUMMARY

This document is the Constraints Study and Preferred Options report for the Hodson Bay area. It identifies a strategy for the long term development of the study area which has emerged from baseline report or feasibility study which presents our understanding of the Area, its constraints and potential for a flagship tourism facility.

Key Issues

1. **Visitor experience opportunities poorly developed along the waterfront.** A better interface with the waterfront is needed and the quality of the buildings and public space needs significant improvement.
2. **There are capacity constraints at the Marina,** which discourages and prevents some visitor accessing the area by boat.
3. **Existing visitor experiences are fragmented across the study area.** There is significant scope to improve the coordination of activities across Hodson bay.
4. **Access to the area is limited with overreliance on the private car.** Car parking availability and poorly located on prime lakeshore land. Provide better access for walkers / cyclists. Remove car parking from the lakeshore and provide new spaces for at a number of locations and reconfigure remaining spaces.
5. **The area is highly sensitive environment and protected at European level.** Evidenced based development required by supplying sufficient baseline information e.g. bird surveys. The strategy should prioritise areas that are previously developed.
6. **There is a lack of development land available in the study area.** There is no obvious greenfield location for a major attraction and limited availability in terms of other development sites.
7. **There is a need to develop and design a watersports facility more appropriately in the context of the study area setting.** This current major attraction draws significant numbers but needs to be reviewed in the context of the overall offer at the viewpoint. At times, the facility appears to compromise other aspects of the area: access to pillar viewpoint, tranquillity, traffic and build quality.
8. **The lack of supporting services such as accommodation, food and drink.** With the exception of the hotel, accommodation, food and drink options are limited.

Preferred Options Objectives

1. **Improve the visitor experience** and dwell time through the provision of a promenade, extended marina and watersports facility.
2. Secure these projects as a means of **enhancing opportunities to be active in nature** and improve both physical and visual connectivity with the River Shannon and Lough Ree.
3. Pursue a development strategy that is focused on **improving the functionality and attractiveness of the waterfront area.** This is an area that are already developed and steers development away from less developed areas which are subject to environmental sensitivities.
4. **Secure improvements to existing access arrangements** through a range of sustainable transport measures and improved car parking arrangements
5. Focus on land in **public ownership** in order to secure delivery.



Figure 1 Hodson Bay Outline Concept

Priority Projects

In terms of the development of a major attraction, the project most closely aligned with this possibility in terms of numbers of visitors per annum is the redeveloped waterfront and marina as a major placemaking initiative. Of the long list of projects, two projects have been prioritised within this report:

The Promenade & Marina Development

A key objective is to enhance the visitor experience through the development of a continuous promenade along the length of the shore. Focusing on the improvement and redevelopment of Roscommon County Council's land asset along the shoreline and providing public access to the River Shannon, will create a pedestrian priority environment. The approach will be achieved by reducing vehicle traffic, rationalizing car parking and creation of a low-speed driving environment.

This promenade will also be developed to integrate proposals for the extension to the Waterways Ireland Marina and will also extend to integrate the redeveloped watersports pavilion. The landscape surrounding this building will include a plaza space with soft landscape areas and a board walk with steps down onto the water providing a continuous waterside circulation and connection along the lake edge.

The promenade will comprise 4 main elements:

1. Beach, Sun deck and Lagoon

The landscape proposals to the south of the redeveloped watersports pavilion are more structured and formal with a series of different programmed spaces proposed. An artificial beach and sun deck activate the water's edge providing opportunities for rest, relaxation and play forming the western edge of the 'Lagoon' which is a controlled stretch of water. The on water play space provides a controlled area of water for swimming, boating activities and various program events.

2. Marina Square and Gardens

The Marina Square and Gardens provides a flexible public space at the southern end of the site. The square addresses the marina, providing a space for programmed activity and events while serving as a functional amenity for marina activities. A small Active Travel Hub provides a nodal point along the proposed cycle network providing information, repairs and a small kiosk/café.

3. Floating boardwalk

A floating timber board walk provides an on-water experience for visitors. The board walk is tethered to the Lough bed allowing it to move in tandem with the tides to avoid the requirement for a fixed structure. The profile of the board walk has been considered to create the appearance of thin visual vector that sits on top of the water to maximise the views across the Lake. Large timber steps allow easy access to the water and provide ledges for sunbathing or sitting

4. Wild Swimming Area to the North of the Watersports Facility

To the north of site, the landscape is wilder in character with patches of deciduous woodland, grasslands and reeds that form around the water's edge. A simple treatment of boardwalks and hard surfacing forms the circulation for this part of the site. The area is to remain undeveloped and maintains for wild swimming only.



Figure 2 Floating Boardwalk – enclosing proposed Lido/lagoon

Reimagined immersive waterplay and sports experience

At the heart of the promenade proposal is the redevelopment of the existing Watersports Pavilion. This redeveloped facility will provide facilities for on water activities such as boating and swimming with the provision of amenities including showers and a café. The landscape surrounding the building is formed of a plaza space with soft landscape areas and a board walk with steps down onto the water providing a continuous waterside circulation and connection along the lake shore.

The basic design strategy for this element of the report is to present two buildings within one structure. Anchored on an axis with the historic Hodson pillar the building is split into two distinct blocks: The first houses the water sports facility and is located adjacent to the waters edge. The second contains publicly accessible accommodation such as showers, toilets and the large cafe that overlooks the water and the public plaza to the south.

The new building is wrapped in timber fins and sits on a platform raised above the water level taking as its conceptual influence the historic lake Crannogs. This gives the complex an illusion of floating above the water whilst allowing water ecology to thrive under it.

The majority of the building is at ground level with two exceptions: The water sports section houses the administrative offices for the facility on an upper floor whilst the cafe has a mezzanine that offers elevated views over the lake.

By keeping proposed cafe and water sports facility together there is guaranteed footfall at the café during peak season. This could lead to higher rental income and/or for this footfall to cross subsidise longer opening season for café. One operator could also potentially run both elements. Public space will also be improved as a result of redevelopment and access to the water's edge will be provided. Through its redevelopment, flooding of an existing building can also be resolved.

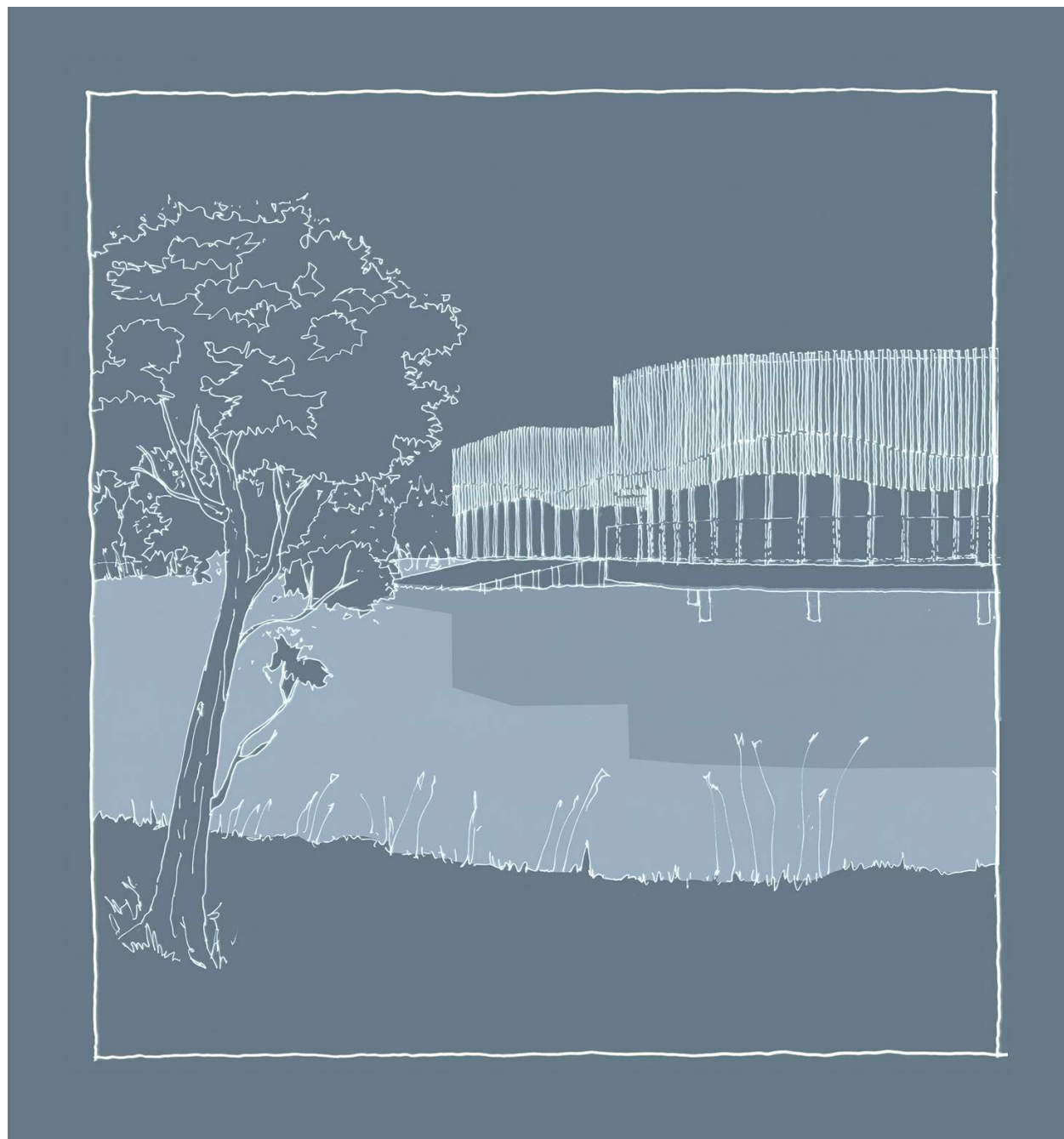


Figure 3 Reimagined immersive waterplay and sports experience

CONTENTS

1.0 INTRODUCTION	14
2.0 THE HODSON BAY AREA - ITS CONSTRAINTS AND POTENTIAL	15
2.1 Introduction	15
2.2 Study Area	15
2.3 Steering Group	15
3.0 CURRENT BASELINE	17
3.1 Existing Tourism Assets and Facilities	17
3.2 Tourism Policy Alignment	17
3.2.1 Shannon, Mighty River of Ireland, A Tourism Masterplan for the Shannon 2020 – 2030	18
3.2.2 Ireland's Hidden Heartlands' Draft Regional Tourism Strategy 2022 - 2028	18
3.3 Summary of Statutory Planning Policy	20
3.4 Environmental Policy Considerations and Constraints	23
3.4.1 Natural Heritage	25
3.4.2 Summary of Ecological Constraints	27
3.4.3 Water Quality	27
3.4.4 Cultural Heritage	30
3.4.5 Conclusions and Recommendations for Heritage Assets	32
3.4.6 Flood Risk	32
3.5 Stakeholder Consultation	35
3.6 Future Development Proposals At Hodson Bay	37
3.6.1 'The Greenway' (Project Lead: Roscommon County Council)	37
3.6.2 Lodges On Yew Point (Project Lead: Hodson Bay Hotel)	37
4.0 PREFERRED OPTIONS STRATEGY	39
4.1 Key Issues	39
4.2 Tourism Objectives for the Study Area	39
4.3 Concept Plan	40
4.4 Landscape Concept	43
4.4.1 Water sports Pavilion	44
4.4.2 Beach, Sun deck and Lagoon	44
4.4.3 Marina Square and Gardens	44
4.4.4 Floating boardwalk	45

4.4.5	Circulation	45
5.0	PROJECTS	47
5.1.1	Initial Long List	47
5.1.2	Options Appraisal and Assessment of the Higher Priority Projects	48
5.2	Priority Projects.....	49
5.3	Promenade & Marina Development	49
5.3.1	Economic Impact	52
5.3.2	Financial Model	54
5.3.3	Capital Costs.....	55
5.3.4	Operating Costs	55
5.3.5	Operating Model	55
5.3.6	Precedent -Lakeshore Promenade	57
5.4	Reimagined Water Play Experience	60
5.4.1	Description of the proposed Watersports facility and Café.....	63
5.4.2	Financial Model	64
5.4.3	Income sources.....	65
5.4.4	Capital Costs.....	65
5.4.5	Operating Costs	65
5.4.6	Summary - Projected Income & Expenditure Accounts	66
5.4.7	Precedent - Whitlingham Activity Centre.....	67
6.0	TRANSPORT STRATEGY	69
6.1	Future Land Uses and Trip Generation	69
6.1.1	Redeveloped Watersports Facility.....	69
6.1.2	Marina	69
6.1.3	Tourist Accommodation.....	70
6.1.4	Other Leisure	70
6.2	Future Visitor Numbers – Summary.....	70
6.3	Access Strategy	71
6.4	Transport Mobility Hub Intersecting with the Greenway	71
6.4.1	Active Travel Hub at Marina Square and Gardens.....	72
6.5	Improving Pedestrian and Cycle Access from N61.....	73
6.5.1	Direct Routes to Facilities.....	73
6.5.2	Circular/ Leisure Routes	73
6.6	Outline Parking Strategy	73
6.6.1	Existing Parking	74
6.6.2	Phased Car Parking Strategy	76
6.6.3	Indicative Parking Provision at New Locations.....	77

6.6.4	Multi-Storey Parking Option	78
6.7	Conclusions	79
6.7.1	Recommendations for next steps.....	80
7.0	ECONOMIC AND MARKET ANALYSIS.....	81
7.1	Visitor Trends	81
7.1.1	Shannon - International Visitors	82
7.1.2	Shannon - Domestic Visitors	82
7.2	Market Segmentation	83
7.3	Future Consumer Trends – July 2021.....	84
7.4	Regional Performance	86
7.5	Local Insights.....	88
7.6	Future Growth in Visitor Numbers.....	89
7.7	Taking Hodson Bay to market	89
7.8	Value Proposition.....	89
7.9	Marketing Strategy	90
7.10	Key Consumer Trends.....	91
7.11	Engaging Stakeholders	93
7.12	Sales Strategy	93
7.12.1	Creating an Identity	93
8.0	SERVICES AND INFRASTRUCTURE	95
8.1	Waste water.....	95
8.2	Water Supply	95
8.3	Irish Water	96
8.3.1	Irish Water Objectives for Development.....	96
8.4	Options for Non Serviced Sites (Lodges at Yew Point)	97
8.4.1	Summary of Requirements	100
9.0	OUTLINE COST AND WIDER BENEFIT FOR PREFERRED OPTIONS	102
9.1	OMC Costings.....	102
9.1.1	Parking Typologies - Costing	103
9.1.2	Site Acquisition Costings	103
9.1.3	Cost Reduction Options.....	104
9.2	Economic Benefits and Cost benefit analysis	105
9.2.1	Methodology	105
9.2.2	Visitor numbers	105
10.0	DELIVERY	108

10.1	Delivery Structure.....	108
10.1.1	Project Funding Options.....	108
10.2	Risk Appraisal.....	108
10.3	Phasing	109
10.3.1	Enabling Development Strategy	109
10.3.2	Additional Baseline Surveys	109
10.3.3	Detailed Design.....	110
10.3.4	Phased approach to Planning Applications.....	110

DOCUMENT REFERENCES

TABLES

Table 1	Projected income and expenditure account	56
Table 2	Projected income and expenditure accounts.....	67
Table 3:	Anticipated Future Marina Vehicular Trips	69
Table 4:	Anticipated Future Vehicular Trips at Hodson Bay.....	70
Table 5:	Existing Vehicular Parking at Hodson Bay	74
Table 6:	Car Parking Standards Relevant to Proposed Uses	75
Table 7	Tourism Numbers in Ireland 2015-2019.....	81
Table 8	Domestic Tourism in Ireland.....	82
Table 9	Tourism Numbers and Revenue for West Region	86
Table 10	Wastewater volume calculation.....	98
Table 11	Klargester 67H Specification.....	99
Table 12	Constructed Wetland Surface area	100
Table 13	Natura 2000 sites within 15km.....	134
Table 14	Nationally designated sites within 15km.....	137
Table 15	Rare and protected flora in Hodson Bay (NPWS, 2022)	141
Table 16	Records of Invertebrate species (NBDC, 2022)	142
Table 17	Records of Amphibian species (NBDC, 2022)	142
Table 18	Records of Bird species (NBDC, 2022)	143
Table 19	Records of Protected Bird Species (NPWS, 2022)	144
Table 20	IWEBS Records of Protected Bird Species (NPWS, 2022)	145
Table 21	IWEBS Data for Lough Ree 2008/2009-2017/2018 (Birdwatch Ireland, 2022)	146
Table 22	Bat Habitat Suitability Index	148
Table 23	Records of Mammal species (NBDC, 2022)	149

Table 24 Records of Invasive species (NBDC, 2022).....	149
--	-----

FIGURES

Figure 1 Hodson Bay Outline Concept.....	4
Figure 2 Floating Boardwalk – enclosing proposed Lido/lagoon	6
Figure 3 Reimagined immersive waterplay and sports experience	7
Figure 4 Hodson Bay Study Area Boundary.....	16
Figure 5 Detailed Site Constraints	24
Figure 7 Ancient Woodland (Source: Environmental Sensitivity Mapping / NPWS, 2012).....	30
Figure 6 Flood Risk.....	35
Figure 8 Concept Plan provided by Hodson Bay Hotel Group.....	38
Figure 9 Hodson Bay –Concept Plan.....	41
Figure 10 Floating Boardwalk and Lagoon	51
Figure 11 -Paprocany Lakeshore. Poland	58
Figure 12- True Blue Bergen, Norway	59
Figure 13 Ground Floor Plan of Proposed Watersports Facility and Cafe.....	64
Figure 14 Roof Plan of Proposed Watersports Facility and Cafe.....	64
Figure 15- Kastrop Sea Baths, Copenhagen	68
Figure 16: Example Detail of Mobility Hub.....	72
Figure 17 Indicative Layout for Multi-storey Car Park	79
Figure 24 UWW Plant Location and Emission Point.....	95
Figure 25 Agglomeration Boundary - Hodson Bay and Environs	96
Figure 10-3 Klargester 67H Package Wastewater Treatment Plant.....	98
Figure 27 Economic Impact	106
Figure 29 Green Belt and Leisure Tourism Amenity Areas within Hodson Bay (Source: <i>Roscommon County Development Plan Volume 2</i>).....	125
Figure 30 Topography Overview	128
Figure 31 Site Topography.....	129
Figure 32 Designated Sites within 15km – Overview	139
Figure 33 Designated Sites– Site Level	140
Figure 34 Detailed Site Constraints	153
Figure 35 Ancient Woodland (Source: Environmental Sensitivity Mapping / NPWS, 2012).....	154
Figure 36 - OPW CFRAM Present Day Flood Extents for Medium and Low Probability Flood Events.....	157
Figure 37 - OPW CFRAM Mid-Range Future Scenario Flood Extents for Medium and Low Probability Flood Events.....	157

APPENDICES

- Appendix 01: Planning Policy
- Appendix 02: Environmental Constraints and Mapping
- Appendix 03: Concept Plans
- Appendix 04: Mobility Hub Design
- Appendix 05: Schedule of Accommodation - Proposed Watersports facility and Café
- Appendix 06: Cross-sectional drawing for the internal access roads
- Appendix 07: Costings

1.0 Introduction

This document is the preferred options report for the Hodson Bay Area. It is supported by the preparation of a feasibility study that presented our understanding of the area, its constraints and the potential for a flagship tourism facility.

Our integrated methodological approach to delivering this project is summarised below. It is based on six (6) inter-related phases.

- Stage 1: Understanding the Hodson Bay Area, its Constraints and Potential
- Stage 2: Preparation of the Constraints assessment & Economic and market analysis
- Stage 4: Concept Plan and related report for 3 potential options
- Stage 5: Preferred option report
- Stage 6: Final Submission

This report represents stage 6.

2.0 The Hodson Bay Area - its Constraints and Potential

2.1 Introduction

The Hodson Bay area is a key location within Ireland's Hidden Heartlands and Shannon Region in terms of leisure, tourism, amenity provision and is well known as a leisure destination. Among its offering includes, Athlone Golf Club, Hodson Bay Hotel and Conference Centre, Water sports centre, and a Waterways Ireland marina facility.

The area is recognised as having high amenity and natural heritage value. As such, the shoreline within Lough Ree is a designated Natura 2000 Special Area of Conservation (SAC) and Special Protection Area (SPA). It is recognised that there is potential to develop this area further as an important amenity and tourism asset however, it is important to ensure the protection of the sensitive environment of the lake and its shores from inappropriate tourism development.

Hodson Bay has been identified in the Shannon Tourism Masterplan 2020-2030 as having potential for increased marina capacity as well as the possibility of providing visitor access to the Lough Ree Islands.

Strategic Initiative 2.3 of the Masterplan outlines the requirement for a technical assessment of marina capacity as well as site specific options for the provision of additional jetty space at Hodson Bay.

2.2 Study Area

The study area defined for the constraints study is shown in Figure 4.

2.3 Steering Group

In light of the shared strategic objectives for Hodson Bay, Roscommon County Council, Fáilte Ireland and Waterways Ireland have formed a representative Steering Group to assess a Constraints study and Preferred Options Report for the development of a flagship tourism facility for the Hodson Bay area.



Figure 4 Hodson Bay Study Area Boundary

3.0 Current Baseline

3.1 Existing Tourism Assets and Facilities

The Hodson Bay area is recognised within the County Development Plan as a distinctly different settlement type, which does not have its origins in a traditional village setting but has instead evolved in part due to its lakeside position and the associated development of tourism and leisure facilities in the immediate vicinity. The area is recognised as a leisure/tourism/amenity asset and the potential to further expand on this offering has also been identified. The area has amongst its offering Athlone Golf Club, Hodson Bay Hotel (167 Rooms and Conference Centre), water sports centre, and a Waterways Ireland marina facility.

Hodson Bay's wider compelling proposition is that it offers the only outdoor water experience, marina, walkways and natural environment experience within its visitor catchment area. This core immersive experience offer is complemented by its easy access to Athlone, its position within the Shannon masterplan catchment area, its natural beauty and heritage and its invitation to increase dwell time and explore the hidden gems of Yew Point and the wider area.



3.2 Tourism Policy Alignment

First implemented in 2018, Fáilte Ireland's 'Hidden Heartlands' is a Regional Tourism Strategy that is branded comparable to 'Ireland's ancient East' and 'Wild Atlantic Way'. The brand of Ireland's Hidden Heartlands promises a bold and ambitious strategic focus on the tourism potential of Ireland's midlands, with the Shannon as its core.

'Active in Nature'

'Active in nature' is at the core of Ireland's Hidden Heartlands proposed experiences. The River Shannon, with its many natural assets, is well placed to capitalise on a growing tourism trend for non-extreme

outdoor activities such as walking, cycling, kayaking, boating, fishing, wildlife-watching, camping and glamping. Visitor experiences should encourage visitors to be 'active in nature'.

'Yours to Uncover'

Domestic visitors will be the first target for Ireland's Hidden Heartlands. The initial campaign, 'Yours to uncover', focused on themes of discovery and exploration. Encouraging visitors to uncover their own unique experience of the natural beauty and hidden treasures should be part of all future experiences.

3.2.1 Shannon, Mighty River of Ireland, A Tourism Masterplan for the Shannon 2020 – 2030

The Tourism Masterplan for the Shannon 2020 – 2030 sets the context for Hodson Bay Preferred Options Report. They include the need for this area to support delivery of Strategic Initiative 2: Enhancing the On-Water Visitor Experience'. The following is of specific relevance to Hodson Bay:

D22.4 Expanding the Lough Ree Experience:

Continue to develop Athlone's waterfront amenities to **build a critical mass of attractions** and activities, linking the Glasson-Coosan-Wineport-Killinure-Hodson Bay activity-food nexus;

SI2.3 Marina Development:

Technical Assessment of Marina capacity to establish requirements for additional jetty space; consider options of Carrick on Shannon; **Hodson Bay**; Connaught Harbour; and new Marina in Parteen/Clarisford.

The potential of Hodson Bay is also considered within section 6.3.4 'Water-Based Activities & Adventure'. (See also Section 7 and 8)

3.2.2 Ireland's Hidden Heartlands' Draft Regional Tourism Strategy 2022 - 2028

This Regional Tourism Strategy presents a 10-year vision for the sustainable development of tourism along with a 5-year strategy to guide the achievement of that vision. The strategy looks to take a new approach to destination development, where the issues and challenges facing a destination are linked to its level of maturity. Ireland's Hidden Heartlands comprises several distinctive destinations which are at varying levels of maturity and different stages of development. As a result of this, destination development plans will be applied by Fáilte Ireland to reflect the needs and growth opportunities per destination ensuring sustainable, relevant, and successful development.

Value and share of tourism

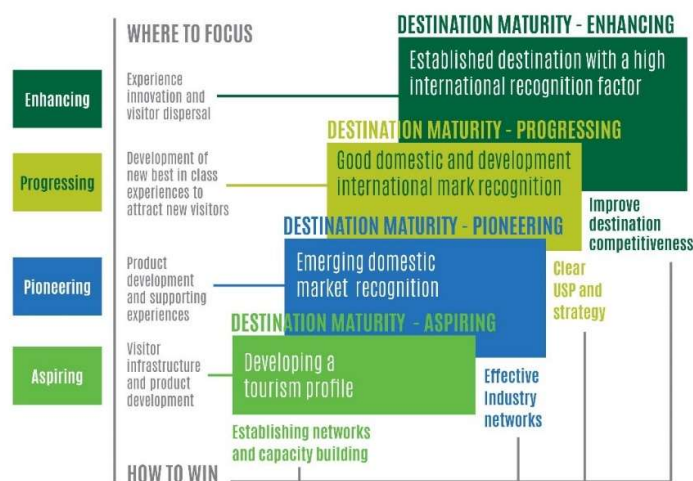
Tourism in Ireland's Hidden Heartlands was worth €307m to the regional economy in 2019 (€178m from international visitors and €129m from domestic visitors) and the sector sustains approximately 7,000 jobs. Nationally, Ireland's Hidden Heartlands has a 4% share of both overseas visitors to Ireland and domestic visitors, and around a 5% share of the registered bed stock.

The strategic context for this plan is provided by Fáilte Ireland's Corporate Strategy 2021-2023 which aims to steer the industry back to recovery following the Covid-19 global pandemic. It sets out a course of action based on the following seven strategic pillars:

1.	To sustain tourism businesses in the short term so they can thrive over the long term.	Survive to Thrive
2.	To support industry to attract and retain talent the talent to support sustainable growth.	Supporting Tourism Careers
3.	To achieve a sustained step change in Irish staycations.	Accelerate Domestic Tourism

4.	To transform Ireland's outdoor tourism experience.	Opening the Outdoors
5.	To transform Irish tourism's online presence and ecommerce capability.	Digital that Delivers
6.	To enhance the destination experience and support the industry in building a pipeline of future international business.	Destination Development and Distribution
7.	To reduce the carbon footprint of the tourism sector and make it much more sustainable.	Driving Climate Action

The destination development framework recognises the differences that exist in destination maturity across the region. This requires a dedicated approach for each destination based on their maturity levels. Four levels of destination maturity have been identified with the stages of destination maturity growing from Aspiring to Pioneering before developing into more mature tourism destinations defined as Progressing and Enhancing. Hodson Bay sits within the Lough Ree & Mid Shannon Destination, which is considered a 'pioneering destination' within the destination development framework.



Strategic Objective 2 of the Draft Strategy refers to the need to 'Build out the range and availability of compelling visitor experiences to underpin the Hidden Heartlands brand proposition.' This objective, which is particularly relevant to further development at Hodson Bay, will be achieved by:

- **Developing more distinctive and more rounded destinations** that can act as strong attractors to the area.
- Establishing a strong reputation for the region around the **outdoor offering and getting active in nature** and the opportunity to explore **hidden cultural and heritage gems**.
- **Establishing the Shannon as an iconic attractor** for the region and raise the profile of many of the experiences associated with it, both on and off the water. In particular, increase consideration and intent for cruising on the Shannon as a highly desirable experience for visitors.
- Working with stakeholders to **sustainably leverage the range of rich natural and cultural assets and recreational infrastructure, such as river and lakes (chief among them the Shannon)**.

3.3 Summary of Statutory Planning Policy

Statutory Plan	Relevant Policy Objectives
National Planning Framework	<p>National Strategic Outcome 3</p> <p>‘A strong start has also been made in the development of a national long-distance Greenway/ Blueway Network. Such a network, including rural walking, cycling and water-based recreation routes, as well as ‘peatways’, has demonstrated major potential to bring new life to regional and rural locations through the “win-win” scenario of increased tourism activity and healthier travel. Developing this network further will diversify our rural economy by embracing the potential for a major expansion in the demand for activity based tourism.’</p> <p>National Strategic Outcome 5</p> <p>‘Developing the potential offered by connectivity and digitisation of rural areas and the better use of knowledge, for the benefit of inhabitants and businesses, is important. This can include e-literacy skills, access to e-health and other basic services, innovative solutions for environmental concerns, circular economy application to agricultural waste, promotion of local products supported by technology and ICT, implementing and taking full benefit of smart specialisation agri-food projects, tourism and cultural activities.’</p> <p>National Strategic Outcome 7</p> <p>‘The Rural and Urban Regeneration and Development Funds will support transformational public realm initiatives to give city and town centre areas back to citizens, encouraging greater city and town centre living, enhanced recreational spaces and attractiveness from a cultural, tourism and promotional perspective.’</p>
RSES for the Northern and Western Region 2020 -2032	<p>Growth - the Western Region is described as having several key regional assets which form part of its ‘value proposition’. This is a location to live, work, do business, and visit. It is noted that effective regional development requires harnessing these regional assets. Tourism is considered one of these many regional assets which could provide a significant number of opportunities in the region.</p> <p>‘Greenways’ - it is noted that drivers of the rural economy such as tourism, require jobs and innovation policies that are cognizant of the characteristics of these sectors in rural areas and address growth barriers. It is appreciated that the sensitive development of biodiversity, conservation, cultural heritage, and landscape assets is important for society and the planning of tourism developments.</p>
Roscommon County Development Plan 2022 – 2028	<p>Hodson Bay has been categorised as a Serviced Settlement within the hierarchy</p> <p>Economic development policy objectives</p>

Statutory Plan	Relevant Policy Objectives
	<p>ED 6.22 - Promote tourism as an integral part of County Roscommon's economic profile, supporting urban and rural enterprise, and recognising the key strategic location of the county and access to tourist sites and attractions.</p> <p>ED 6.23 - Continue to support the implementation of the <i>Roscommon Tourism Strategy 2017-2020</i> (and subsequent revisions) in line with national and regional policy, tourism trends and identified challenges, in collaboration with Fáilte Ireland, Waterways Ireland, tourism businesses and communities and other supporting agencies.</p> <p>ED 6.27 - Collaborate with relevant state bodies, neighbouring Local Authorities and local communities in delivering a UNESCO accredited, Biosphere for Lough Ree and the Mid- Shannon Wilderness Park.</p> <p>In terms of context is described that the Hodson Bay/Barrymore Plan area is located on the western shores of Lough Ree, approximately a ten-minute drive from Athlone in the northeast. The area is generally characterised by single dwellings on individual sites and low-density multi-unit residential development within the Plan boundary. Although not a traditional village, the area nonetheless has a strong resident community. There is continued residential demand in the area, owing to its scenic and amenity value on the shores of Lough Ree, along with its logistically advantageous location in proximity to the Athlone and within short driving distance of Roscommon town. Of significance, it is highlighted the Hodson Bay / Barrymore area is a key location within the county in terms of leisure, tourism and amenity provision. The area is renowned as a leisure destination and has amongst its offering Athlone Golf Club, Hodson Bay Hotel and Conference Centre, Watersports water sports centre, and a marina facility. The area is recognised as having high amenity and natural heritage value. As such, the shoreline with Lough Ree is a designated Natura 2000 Special Area of Conservation.</p> <p>Notably, the Area Plan provides a specific section on Leisure, Tourism and Recreation. It described therein that Hodson Bay / Barrymore is an important destination in County Roscommon in terms of its leisure tourism and recreation offering. Tourism activity within the Plan area is centred on Lough Ree and the adjacent facilities and amenities, including particularly the marina, hotel, caravan park, golf course and watersports centre.</p> <p>The Council recognise the potential of this area to develop further as an important amenity and tourism asset and the Council will seek to support this, whilst ensuring the protection of the sensitive environment of the lake and its shores from inappropriate tourism development. Tourism development that may potentially have a detrimental impact on</p>

Statutory Plan	Relevant Policy Objectives
	<p>the amenity of the lake or surrounding environment will not be permitted. The Council will seek to encourage and support the retention and appropriate expansion of existing facilities and also to accommodate appropriate forms of additional leisure, tourism and amenity related development, subject to satisfying all environmental considerations and normal siting and development criteria. In particular, appropriate low intensity green tourism developments adjacent to the shore of Lough Ree will be supported. Roscommon County Council will also engage with relevant stakeholders to carry out a feasibility study into the further development of Hodson Bay / Barrymore as a major amenity area.</p> <p>It also emphasised that in addition to specific policy objectives set out in this Area Plan, all development proposals arising within the Hodson Bay / Barrymore Area Plan boundary will be required to adhere to relevant policy objectives and development management standards set out in Volume I of the Roscommon County Development Plan 2021-2027, as the overarching Plan, and to adhere to the General Policy Objectives set out in Section 1 of Volume II of the Plan, including in respect of all environmental and flood related policy objectives.</p> <p>The following Hodson Bay / Barrymore Policy Objectives area provided:</p> <p>HB 1 Facilitate suitable leisure, tourism and amenity developments on lands zoned Leisure Tourism / Amenity in order to strengthen the significance of Hodson Bay / Barrymore as one of the main tourism/recreational attractions in County Roscommon and regionally.</p> <p>HB 2 Support the future expansion of existing tourism and leisure facilities, while ensuring that access to facilities continues to be provided for the general public, so that Hodson Bay continues to function as a valuable amenity resource for Roscommon.</p> <p>HB 3 Encourage developments which are quality driven and of high architectural merit, which will enhance their surroundings and respect this visually and environmentally sensitive area.</p> <p>HB 4 Facilitate low intensity tourism and amenity development only (for example, camping or glamping facilities, walking / cycling routes) in currently undeveloped areas within the Leisure Tourism / Amenity zone which is in proximity to Natura 2000 designated sites. Proposals should utilise existing servicing infrastructure.</p> <p>HB 5</p>

Statutory Plan	Relevant Policy Objectives
	<p>Support the provision of low intensity green infrastructure which will be accessible by all users.</p> <p>HB 6 Require all new permanent facilities to be designed to high architectural standards, and to visually complement the area.</p> <p>Consideration has also been given to Green Belt Areas which emphasises that the Council will seek to conserve the nature conservation value of the Lough Ree proposed Natural Heritage Area (NHA) and Special Area of Conservation (SAC) as well as other environmentally sensitive areas. The Council recognises the importance of the Shannon as an environmental and tourism resource of national significance and the importance of the waterway and the Callows as habitats for a rich variety of flora and fauna. Green belt zoning is generally applied to specific zones to protect the setting, character and environmental quality of these areas of high natural beauty and safeguard their environmental, archaeological and ecological amenities. In this respect, the following policy objectives are provided:</p> <p>HB 7 Protect the existing Natura 2000 sites and pNHAs and any sites which become designated and notified to Roscommon County Council during the lifetime of this Plan.</p> <p>HB 8 Maintain greenbelt lands as a visual and environmental buffer to preserve the natural amenity of the area such as alongside waterways, rivers and floodplains.</p> <p>HB 9 Protect greenbelt lands from inappropriate developments which would give rise to an adverse impact upon the receiving environment and/or undermine the biodiversity/landscape or amenity value of the area.</p> <p>HB 10 Ensure the protection of lands liable to flooding from development which would give rise to adverse impacts upon the receiving environment.</p>

3.4 Environmental Policy Considerations and Constraints

Environmental constraints were considered as part of this study and places specific constraints were applied to the study as per Figure 5.

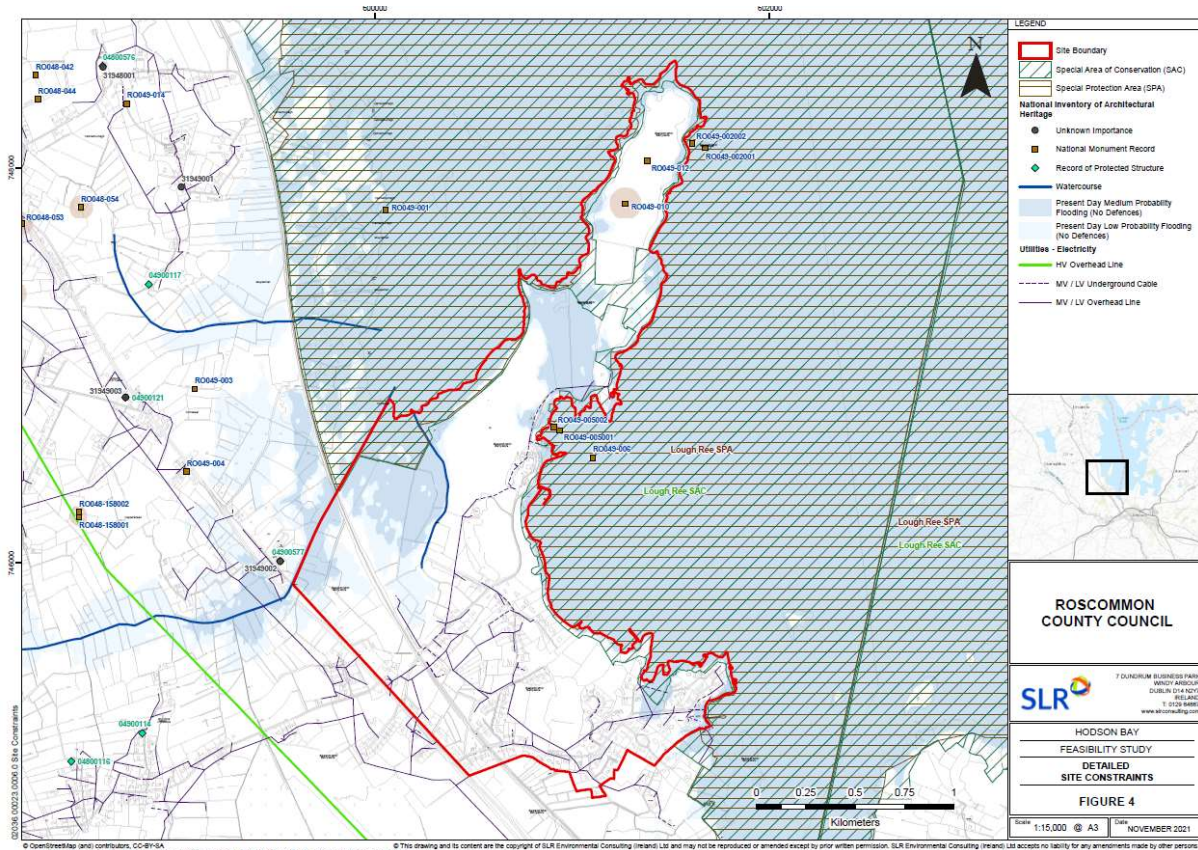


Figure 5 Detailed Site Constraints

Key environmental sensitivities include:

- The Lough Ree SPA and Lough Ree SAC located within the study area.
- Significant areas of flood risk along the lakeshore.
- Lack of site servicing solutions for Yew Point.
- Heritage assets within the boundary.
- An area of long-established woodland or ancient woodlands within Yew point along the north and eastern shoreline. There will be a presumption against tree removal within this area.

Considering its proximity to Lough Ree SPA and Lough Ree SAC, Hodson Bay is an ecologically sensitive site with the potential to support a number of protected species and habitats. This is potentially a major constraint to any development within the area.

Development would only be feasible where it can be demonstrated there will be no adverse effect on the integrity of Lough Ree. This will require a very high standard of evidence to demonstrate if this is the case. To be able to fulfil the requirements of the Appropriate Assessment process, it is imperative that sufficient ecological data has been yielded to support the conclusion of those reports (i.e., Stage 1 Screening, and Stage 2 Natura Impact Statement). Without this data, the conclusion of these reports is baseless and open to challenge.

There may also be additional constraints to the type, size, and layout of the development, as well as seasonal constraints to its operation.

3.4.1 Natural Heritage

Designated Sites

The proposed site overlaps with and is connected to Natura 2000 sites and nationally designated sites. As such, an assessment must be made of the potential for significant impacts to these sites and their qualifying interests. As such, surveys for the species/habitats of qualifying interest should be carried out on and around the proposed site.

Habitats

In addition to the Annex I habitats yielded from the data search, there is potential for further Annex I habitats to be present within the proposed site. It is strongly recommended that habitat surveys be carried out to classify habitats and determine if they meet the criteria for Annex I habitats.

Plants

A habitat survey (April- September) may identify if there are any rare or protected flora present, in addition to those yielded from the data search.

Invertebrates

A habitat survey would help inform if there is potential for the aforementioned protected invertebrate species to be present. Both Marsh Fritillary and Desmoulins's Snail are dependent on particular habitat types. As such, if these habitats are absent, it is unlikely these species would be present.

Amphibians

Any works should consider the potential for smooth newt and common frog to be present. A survey and appropriate measures to avoid negative impacts on these species.

Reptiles

A habitat survey would identify if there are potential suitable habitats present to support common lizard.

Birds

A total of 40 bird species were yielded from the data search. Of these, 11 are species of conservation interest (SCI) for Lough Ree SPA. Six species were recorded in Lough Ree in nationally important numbers, namely Coot, Golden Plover, Lapwing, Little Grebe, Tufted Duck, and Wigeon all of which are SCI for Lough Ree SPA (Table 21). Five recorded species are assessed as being of moderate sensitivity to noise disturbance, namely mallard, golden plover, lapwing, and curlew. One species (shelduck) is assessed as being of high sensitivity to noise disturbance. As such, there is potential for the Species of Conservation Interest (SCI) for Lough Ree SPA to use the habitats within the proposed site, particularly lapwing, curlew, and golden plover.

In order to determine if these species will be impacted by development within the proposed site, a minimum of one complete year of surveys should be carried out including two visits per month in each season (breeding and wintering). The survey would also include a count of birds on the water in proximity to the site in distance bands; this will help determine if there is potential for significant noise and visual disturbance impacts. It is proposed that the surveys would be carried from late November-early March inclusive at a minimum (i.e. equivalent to 2 visits per month for 4 months) to ensure, as far as possible, that surveys coincide with the time of year when these species are most likely to be found. Noise modelling shall be carried out based on the findings of these surveys to determine the degree of impact, if any (IECS, 2013).

There is also ample nesting habitat within the proposed site for nesting species. As such, any necessary vegetation-clearance and/or tree-felling will need to be carried out outside of the bird-nesting period (the nesting season being 1st March to 31st August). Any lost habitat will need to be compensated for by planting an area equivalent to the amount lost, and with similar species of local provenance.

Five recorded species are assessed as being of moderate sensitivity to noise disturbance, namely mallard, golden plover, lapwing, and curlew. One species (shelduck) is assessed as being of high sensitivity to noise disturbance. In order to determine if these species will be impacted by development within the proposed site, a minimum of one complete year of surveys should be carried out including two visits in each season (breeding and wintering). Noise modelling should be carried out based on the results of these surveys to determine the degree of impact, if any (IECS, 2013).

Bats

It is strongly recommended that bat surveys be carried out to assess the suitability of the habitats for bats, and to determine the bat species present within Hodson Bay.

A preliminary roost assessment would be first carried out in late winter-early Spring (i.e. while vegetation cover is low) to determine the potential for trees and structures within the Site to support roosting bats. Should this survey find there is potential for bats to be roosting within the trees/structures, an emergence/re-entry survey would be carried out (within the period May-September) to confirm its use and value to bat populations.

A transect survey would be carried out within the site to assess how bats are using the habitats, and which areas are of greater value to species. Based on the desk study, the Site is considered to be of moderate value to bat species. As such, it is proposed that one survey per month be carried out April-October, as per published guidance¹.

An automated bat survey could also be carried out to compliment these surveys. This would involve deploying static bat detectors at locations around the Site for five consecutive nights per season (i.e. once in spring, summer, and autumn).

The recordings yielded from both the transect and automated bat surveys would be then analysed in Kaleidoscope software to identify the species present, and distribution within the site.

All bat species are protected under Annex IV of the EU Habitats Directive. The domestic legislation that implements this Directive gives strict protection to individual bats and their breeding and resting places. Where trees and structures identified are identified as being potential roosting sites for bats, appropriate avoidance, mitigation and/or enhancement measures will need to be employed to avoid negative impacts on bat populations.

Mammals

A badger sett was recorded within woodland on the peninsula. Badgers and their setts are protected under the Wildlife Act, 1976 (as amended). As such, measures will need to be implemented to avoid or mitigate against any impacts to the species and its sett. It is recommended a species-specific badger survey be carried out to determine the extent of the sett and, thus, the area requiring protection.

Otter is protected under Annex of the EU Habitats Directive. There is a strong likelihood the species is using the habitats along the shoreline of Hodson Bay. It is thus recommended that a species-specific otter survey be carried out to confirm if there is any breeding habitat present and if otters are using these habitats.

Pine marten is present within the peninsula, and there is potential for both red squirrel and pine marten to be using the woodland habitats present. A survey of these areas should be carried out in winter/early-spring for dreys and dens.

Hedgehog, Irish Hare and Pygmy Shrew can be difficult to survey for. However, any works should consider their presence and include appropriate measures to avoid negative impacts on these species.

¹ Bat Surveys for Professional Ecologists – Good Practice Guidelines. Bat Conservation Trust, 2016.

Invasive Species

An invasive species survey (April-September) would identify the presence of any invasive flora. This can be carried out as part of the habitat survey.

3.4.2 Summary of Ecological Constraints

Considering its proximity to Lough Ree SPA and Lough Ree SAC, Hodson Bay is an ecologically sensitive site with the potential to support a number of protected species and habitats. This is potentially a major constraint to any development within the proposed site. Development would only be feasible where it can be demonstrated there will be no adverse effect on the integrity of Lough Ree. This will require a very high standard of evidence to demonstrate if this is the case. To be able to fulfil the requirements of the Appropriate Assessment process, it is imperative that sufficient ecological data has been yielded to support the conclusion of those reports (i.e. Stage 1 Screening, and Stage 2 Natura Impact Statement). Without this data, the conclusion of these reports is baseless and open to challenge.

There may be additional constraints to the type, size, and layout of the development, as well as seasonal constraints to its operation.

Mitigation measures to protect Annex I habitats, prevent water pollution and prevent disturbance to birds and otter are almost certain to be required. The areas of the proposed site which are within the boundary of Lough Ree SAC and Lough Ree SPA would need to be excluded from and protected in any development. Use of Lough Ree would need to be limited to avoid direct negative impacts on these Natura 2000 sites.

Mitigation measures to protect Annex I habitats, prevent water pollution and prevent disturbance to birds and otters are almost certain to be required. The areas of the proposed site which are within the boundary of Lough Ree SAC and Lough Ree SPA would need to be excluded from and protected in any development. Use of Lough Ree would need to be limited to avoid direct negative impacts on these Natura 2000 sites.

3.4.3 Water Quality

Water Framework Directive

The EU Water Framework Directive (WFD) became EU law in December 2000 and provides for a single European framework to assess water quality (Ecological status) and allows for the comparison of results across Europe. The WFD covers rivers, lakes, estuaries or transitional waters, coastal waters as well as groundwaters.

Surface waters are classified into five quality classes (status) under the WFD; High, Good, Moderate, Poor and Bad status. Groundwater is classified into just two quality classes, Good and Poor status. High status is when the water is unpolluted, while at the opposite end of the classification Bad status is when the water is highly polluted.

The WFD required baseline water quality in all waterbodies to be established for biological, chemical and hydromorphology quality. These three quality variables are combined to give the overall status classification of the waterbody; good or high ecological status and good chemical status for surface waters and good chemical and quantitative status for groundwaters.

The aim of the WFD is for all waters to achieve Good status or higher by 2027, or to protect those waters which are classified as being of Good or High status where they already exist. The WFD identifies where actions are required to achieve Good status or maintain waterbodies which are already Good or High status. Waterbodies can be restored Good and High status by using targeted actions and measures to reduce the impact of human activities on them.

For heavily modified or artificial water bodies, which are incapable of achieving good ecological status without impairing an existing specified water use, the environmental objective is to achieve good ecological potential.

The WFD requires that management plans are prepared on a river basin basis and specifies a structured method for developing these plans

River Basin Management Plans

The River Basin Management Plans (RBMP) provide a single system of water management based on the natural delineation of river catchments and is the method by which the aims of the WFD are achieved.

For each river basin district in Ireland a RBMP plan needs to be established and updated every six years, to provide the context for the co-ordination requirements of the WFD key aims which are to:

- Provide for protection to all waters, surface waters and groundwater
- achieving Good status for all waters by 2027;
- establish water management measures based on river basin catchment areas;
- establish a combined approach of emission limit values and quality standards for waters;
- involving citizen more closely in the WFD and RBMP; and
- streamlining and aligning national legislation.

The RBMP provides a detailed account of how the objectives set for each river basin in terms of ecological status, quantitative status, chemical status and protected area objectives are to be reached within the timescale of the plan. The plans include the results of the catchment analysis including the river basin's characteristics, a review of the impact of human activity on the status of waters in the basin, estimation of the effect of existing legislation and the remaining gap to meeting these objectives; and establish a set of measures designed to meet the objectives.

Third-Cycle River Basin Management Plan for Ireland 2022-2027

The current RBMP report for Ireland (2022-27) is at the draft stage. The draft report states that while substantial progress has been made in the management of water services and how we work together to protect, restore and improve water quality with the improvement in some areas and aspects of water quality, many waterbodies are still subject to mounting environmental pressures and overall water quality is in decline primarily due to nutrient pollution.

The RBMP states that due to the overall decline in water quality stronger measures are now required which will improve overall water quality; the sustainable management of water resources is important to address and adapt to the impacts of climate change, with many of the required measures having co-benefits for climate mitigation and biodiversity. Protecting and restoring water quality in Ireland will most of all need measures to address:

- the loss of agricultural nutrients to water;
- continue to improve wastewater treatment; and
- to re-establish natural free-flowing conditions in more rivers.

The plan states that Ireland's water resources and services face challenges on a number of fronts including a continued need for investment in infrastructure and an ever-increasing demand for water services due to urbanisation, population and economic growth. These challenges are set against a backdrop of widespread, rapid, and intensifying climate change.

Lough Ree

The study area is part of the Upper Shannon (Lough Ree) catchment which is divided into six subcatchments with 19 river waterbodies, nine lake waterbodies and 15 groundwater bodies. The relevant sub catchment is the

Name	Subcatchment_Id	Catchment_Id
Shannon[Upper]_SC_090	26E_6	26E

The overall Lake Waterbody WFD Status 2016-2021 is considered good, however one out of eight lake water bodies within the subcatchment is AT RISK, Lough Ree due to its less than Good biological status (driven by macrophytes). The remaining seven lake and two river water bodies are under REVIEW due to their unassigned status.

Urban waste water treatment within this subcatchment is likely to be a significant pressure impacting Lough Ree. Zebra mussels are also present within this water body. In addition, a licensed facility within an inputting river waterbody in the northeastern part of the lake, Shannon (Upper)_100, has impacted water temperature due to the hot water outflow in

which Asian clams favour and are present in very large numbers. This may also impact the lake. A disused piggery within the subcatchment may also represent a significant pressure for the lake due to storage of slurry.

This assessment has been produced as part of the national characterisation programme undertaken for the second cycle of Water Framework Directive river basin management planning. It has been led by the EPA, with input from Local Authorities and other public bodies, and with support from RPS consultants.

The characterisation assessments are automatically generated from the information stored in the WFD Application. They are based on information available to the end of 2015 but may be subject to change until the final 2018-21 river basin management plan is published.

Nationally, 557 lakes (69%) are in 'good' and 'high' ecological status, while the remainder are at less than good (31%). This includes both monitored and unmonitored lakes.

The majority of high and good ecological status lakes are found in the southwest, west and northwest of the country while the majority of moderate or worse ecological status lakes are located in the northeast of the country. This distribution tends to reflect the difference in the level of human activity, hydrogeology and soil conditions in these regions.

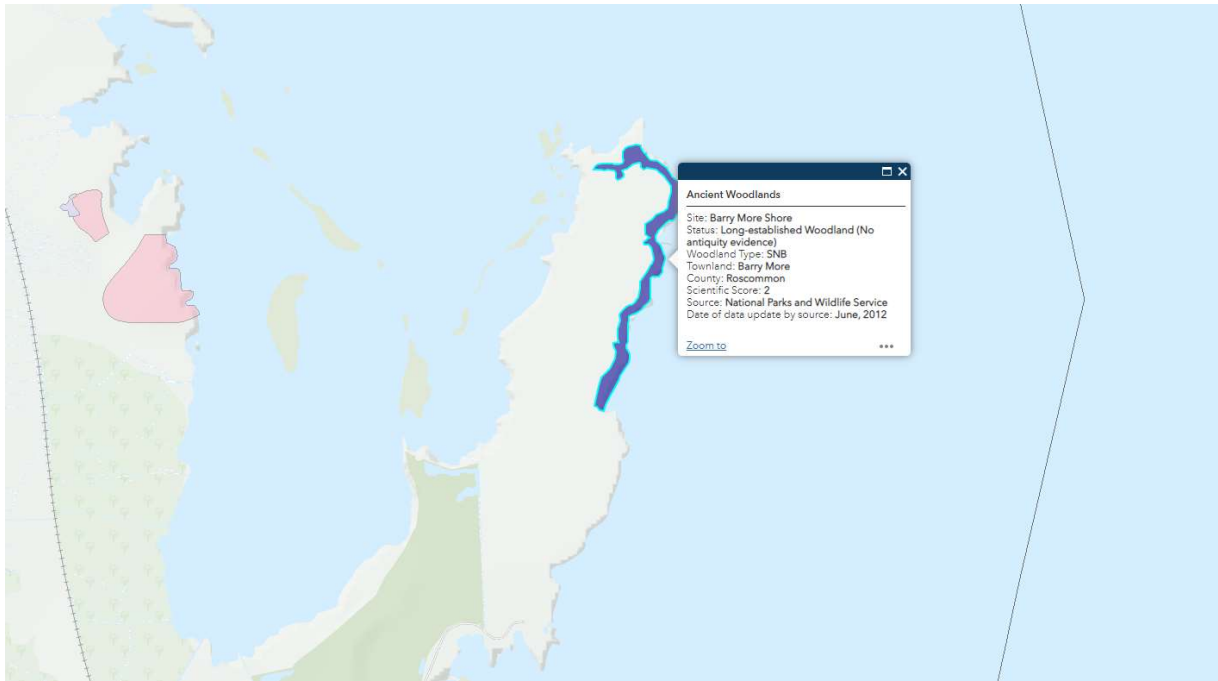


Figure 6 Ancient Woodland (Source: Environmental Sensitivity Mapping / NPWS, 2012)

3.4.4 Cultural Heritage

Assets within the site of the proposed development include **two known heritage assets**. These include the causeway of Barrymore townland, (RO049-0050002) and an enclosure (RO049-010) to the north of the proposed development.

Causeway (RO049-0050002)

A causeway (RO049-0050002) is marked on the 1951 Ordnance Survey (OS) map (6 Inches). The site is located on the west coast of Hodson Bay, connected to Goose Island. The causeway has dimensions of 60m in width and runs 200m to Goose Island, a small island located 0.6km to the east of Hodson Bay peninsular. Goose Island is a redundant record on the SMR (RO049-0050001) and is believed to be natural in origin. The causeway is likely post medieval in date as it has since been raised and expanded since its first iteration on the OS map

Enclosure (RO049-010)

An enclosure, noted as an enclosed wood on the 1837 and 1915 editions of the Ordnance Survey map, (6-Inch). The enclosure is situated on the north west facing slope, approximately 70m in diameter. The enclosure comprises a circular grass covered bank approximately 0.2m high. No visible entrance has been identified. The enclosure is unknown date but may be prehistoric and in relation to other enclosures in the area such as the hilltop enclosure (RO048-1580001) that is situated 3km to the south west. Within the redundant record RO049-012, the enclosure is described as a rath.

Peat Bog

Within the site of the proposed development is an area of cutover raised peat. A cutover bog is an area of peat which has had part of its peat mass removed, with the peat having been domestically cut. Within Ireland, peat was used for fuel domestically since the 7th Century and was a principal source of fuel by the 17th Century.

The presence of a Peat Bog within the survey area presents the possibility for highly preserved archaeology. The anaerobic environment and acidity within a Peat Bog mean that it is extremely good at preserving archaeological material. Approximately 1600 recorded archaeological finds have been recovered from Irish Peat Bogs, including stone tools, weaponry, coin hoards and human remains. Many finds within Irish Peat Bogs are associated with causeways used to traverse the difficult terrain.

Assets outwith Site

Within 1km of the site, there are six heritage assets. One is the causeway of Barrymore (**RO049-002002**) located 42m to the east from the site boundary, this causeway links to the island of Lough Ree (**RO049-02001**), which previously thought to be a crannog has now been discounted. The causeway is first recorded on the first edition OS map of 1837 and 1915. The description of the causeway indicates that it is a modern feature. Additionally, the aforementioned Goose Island (**RO049-005001**) is outwith the site boundary and is thought to be a natural feature.

Also, within 1km of the site lies a Presbyterian house recorded on the NIAH (**Reg no. 31949002**) and the County Roscommon Record of Protected Structures (**RPS No. 04900577**). The NIAH entry notes that; 'The limestone built presbytery displays architectural motifs popularly used in the late nineteenth century, such as the canted bay windows. The pointed-arched window and door openings compliment and reflect those of the adjacent church and underline the ecclesiastical association of the structure.'

On an island to the east of the site, named by the Hodson Bay Hotel as **Temple Island**, is a stone pillar. The historical OS maps (6 Inch and 25 Inch) name this structure Hodson's Pillar (**RO049-006**). The pillar is thought to have been constructed c. 1700 and was initially thought to have been placed at the exact centre of Ireland. The Hodson Bay Hotel states that this pillar has started to disintegrate in recent years.

Within the south of Lough Ree, c. 0.17km east of Yellow Island, and c. 0.62km east of the site is an un-named rowboat wreck (**W18532**). The wreck lies within 7m of water and is most likely a modern angling boat.

The redundant SMR record **RO049-001** notes a small oval island c. 0.75km east of the site, at the entrance to a triangular bay on the west shore of Lough Ree. Whilst this island is attached to the mainland by a ridge, it is thought that it is not artificial in construction and is most likely natural in origin.

Historic Mapping

The National Townland and Historical Map Viewer was used to identify any further possible archaeological or heritage assets within the site.

A Spa Well (Chalybeate) is present on both the Historic 25 Inch and Historic 6 Inch Last Edition Black and White Ordnance Survey (OS) maps. A chalybeate is a mineral spring that is high in iron oxides. These springs were thought to have healing properties and their waters were drunk medicinally. The depiction of the well on the historic mapping may indicate the presence (or former presence) of a marker or structure to denote its location.

The historical OS maps (6 Inch and 25 Inch) show the presence of Hodson's Bay House, in the place of the modern day Hodson Bay Hotel. The hotel's website states that the land was given to General Hodson by Oliver Cromwell, in reward for his service after his invasion of Ireland in 1640. It was on this land that the original Hodson's Bay House was built in c. 1700. It is unknown how much of the original house remains. The 25 Inch OS map shows two wells, one within the courtyard of Hodson's Bay House and one along the waterfront to the east; no evidence of these can be seen on aerial photographs.

Historical sources² state that Hodson's Bay House was originally called the Manor of St. John, after an Abbey of St. John that used to stand on the site. The source states that the ruins of the abbey were still visible in the late

²The Recollections of Skeffington Gibbon, from 1796 to the Present Year 1829: Being an Epitome of the Lives and Characters of the Nobility and Gentry of Roscommon; the Genealogy of Those who are Descended from the Kings of Connaught; and a Memoir of the Late Madame O'Connor Don.

1700s/early 1800s and that there was a burial ground nearby. Neither of these sites are visible within historical mapping.

To the west of the site of Hodson's Bay House, the Historic 25 Inch and Historic 6 Inch Last Edition Black and White OS maps show a site named Hodson's Tower. It is accompanied by an OS trig point symbol and is most likely in reference to the trig point. An entry in the National Folklore Collection³ names a site within Hodson's Bay called Hudson's Bay Tower, however, due to the description of it having been thought to be the location of the centre of Ireland, it is most likely referring to the previously mentioned Hodson's Pillar.

3.4.5 Conclusions and Recommendations for Heritage Assets

There are no designated heritage assets within the boundary of the study area or its immediate proximity. Development proposals within the Site would not therefore impact upon designated heritage assets through ground disturbance. Furthermore, impact to any distant designated heritage asset through setting is considered unlikely, albeit field observations may be necessary to confirm this.

Within the site boundary, there are two undated heritage assets recorded on known datasets; an enclosure and a causeway. An area of peat bog is also recorded which has a high potential for archaeological remains. In consolidation of the known datasets a cursory analysis of historic mapping and historic sources identified multiple unrecorded potential heritage assets. The unrecorded asset of Hodson's Bay House (within the footprint of the Hodson Bay Hotel) is somewhat visible in modern aerial photographs (National Townland and Historical Map Viewer, Aerial Photographs 2005-2012). Further potential heritage assets, such as the reported St. Johns Abbey and the associated burial ground, are not seen on aerial photographs or any modern or historical maps and as such their true location is unknown. As such, there is a potential for associated unrecorded heritage assets to be within the site boundary.

In summary, the initial judgement of impact to designated heritage assets is anticipated to be 'no impact', although field observations may highlight an in-direct impact not readily available from desktop resources.

Referencing the proposed methodology for full impact assessment set out in Appendix 01, the initial judgement of impact on non-designated heritage assets is gauged very broadly at this stage as between 'no impact' and 'significant impact'. However, the most likely scenario within these parameters would be an impact of 'slight' or 'moderate' adverse effect. Certainly, further work, as set out below, would assist in refining the level of impact or providing information on how a significant impact could be adequately mitigated.

3.4.6 Flood Risk

The Office of Public Works (OPW) is the government agency with statutory responsibility for flooding in Ireland, and under the National Catchment Flood Risk Assessment and Management (CFRAM) Study a series of modelled river and coastal flood maps have been produced at the national scale and at the local scale for specific areas, particularly urban areas.

The OPW CFRAM mapping includes present day river and coastal flood extents for a range of modelled Low, Medium and High probability flood events. In addition, a range of future river and coastal flood extents have been modelled based on predicted climate change scenarios.

When considering flooding it is important to understand that flooding is a natural phenomenon which occurs when flows in rivers, or flows into lakes, exceed the channel capacity of the river, or the outflow from the lake; once these flow conditions are met then the excess water will flood onto the floodplain or surrounding lands adjacent to the river and/or lake. This is a natural process.

³ <https://www.duchas.ie/en/cbes/5009134/4989909>

Planning Guidelines

The Office of Public Works (OPW) and Department of the Environment, Heritage and Local Government (DoEHLG) issued guidelines for planning authorities addressing the management of flood risk in the planning system⁴ (hereinafter referred to as the 'Flood Planning Guidelines').

The flood planning guidelines introduced comprehensive mechanisms for the incorporation of flood risk identification, assessment and management into the planning process. Implementation of the guidelines will be achieved through actions at national, regional, local authority and site-specific levels, depending on the plan or development project being considered.

A sequential approach is adopted in the Flood Planning Guidelines in order to guide development away from areas at risk of flooding. For this purpose the sequential approach identifies and defines three different flood zones (designated Zones A, B and C) in order to guide development at a particular site. The flood zones are:

- Zone A** *High probability of flooding. This zone defines areas with the highest risk of flooding from rivers (i.e. more than 1% probability or more than 1 in 100) and the coast (i.e. more than 0.5% probability or more than 1 in 200).*
- Zone B** *Moderate probability of flooding. This zone defines areas with a moderate risk of flooding from rivers (i.e. 0.1% to 1% probability or between 1 in 100 and 1 in 1000) and the coast (i.e. 0.1% to 0.5% probability or between 1 in 200 and 1 in 1000).*
- Zone C** *Low probability of flooding. This zone defines areas with a low risk of flooding from rivers and the coast (i.e. less than 0.1% probability or less than 1 in 1000).*

The probability of flooding at a particular location (i.e. in a certain flood zone) is presented as an Annual Exceedance Probability (AEP) percentage; Flood Zone A has a High probability of flooding where the AEP is >1% for flooding from rivers.

⁴ *The Planning System and Flood Risk Management Guidelines for Planning Authorities* (2009): Office of Public Works and the Department of the Environment, Heritage and Local Government.

OPW CFRAM Study Flood Modelling

The OPW CFRAM modelled flood outlines for the shores of Lough Ree at the site were obtained from Roscommon Co. Council for the purpose of this study and are shown in Figure 29 and Figure 30 below.

Present Day Flood Extents

The Present Day Flood Extents for the River Shannon at the site, see Figure 29, are for the modelled medium probability flood extent, the 1% AEP flood outline which equates to Flood Zone A, and the low probability flood extent, the 0.1% AEP flood outline which equates to Flood Zone B.

The available OPW CFRAM modelled flood mapping indicates that the edges of Lough Ree, and low lying areas around the lake, are liable to flood during these flood events and peninsula / headland at Barry More Townland will be cut-off by flood waters at a low point. In addition, extensive flooding is predicted on low lying ground at Comaseer Townland along the western part of the study area.

Mid-Range Future Scenario Flood Extents

The Mid-Range Future Scenario (MRFS) Flood Extents for the River Shannon at the site are shown in Figure 30, for the modelled medium probability flood extent, the 1% AEP flood outline which equates to Flood Zone A, and the low probability flood extent, the 0.1% AEP flood outline which equates to Flood Zone B.

The OPW CFRAM Mid-Range Future Scenario flood extents were generated and modelled taking in the potential effects of climate change using an increase of +20% in flood flows over a future time horizon of 100 years.

The available OPW CFRAM modelled MRFS flood extent mapping indicates that the flooding is slightly more extensive, particularly in lower lying areas, than under the modelled present day flood extents.

Land Use and Flooding

The Flood Planning Guidelines set out the planning implications for development in each of the Flood Zones and gives examples of typical types of development vulnerability which are considered appropriate to each identified flood zone, see Diagram 1 below.

The planning implications for development in each flood zone are:

Zone A *Most types of development would be considered inappropriate in this zone. Development in this zone should be avoided and/or only considered in exceptional circumstances, such as in city and town centres, or in the case of essential infrastructure that cannot be located elsewhere, and where the Justification Test has been applied. Only water-compatible development, such as docks and marinas, dockside activities that require a waterside location, amenity open space, outdoor sports and recreation, would be considered appropriate in this zone.*

Zone B *Highly vulnerable development, such as hospitals, residential care homes, Garda, fire and ambulance stations, dwelling houses and primary strategic transport and utilities infrastructure, would generally be considered inappropriate in this zone, unless the requirements of the Justification Test can be met. Less vulnerable development, such as retail, commercial and industrial uses, sites used for short-let for caravans and camping and secondary strategic transport and utilities infrastructure, and water-compatible development might be considered appropriate in this zone. In general however, less vulnerable development should only be considered in this zone if adequate lands or sites are not available in Zone C and subject to a food risk assessment to the appropriate level of detail to demonstrate that food risk to and from the development can or will adequately be managed.*

Zone C *Development in this zone is appropriate from a food risk perspective (subject to assessment of food hazard from sources other than rivers and the coast) but would need to meet the normal range of other proper planning and sustainable development considerations.*

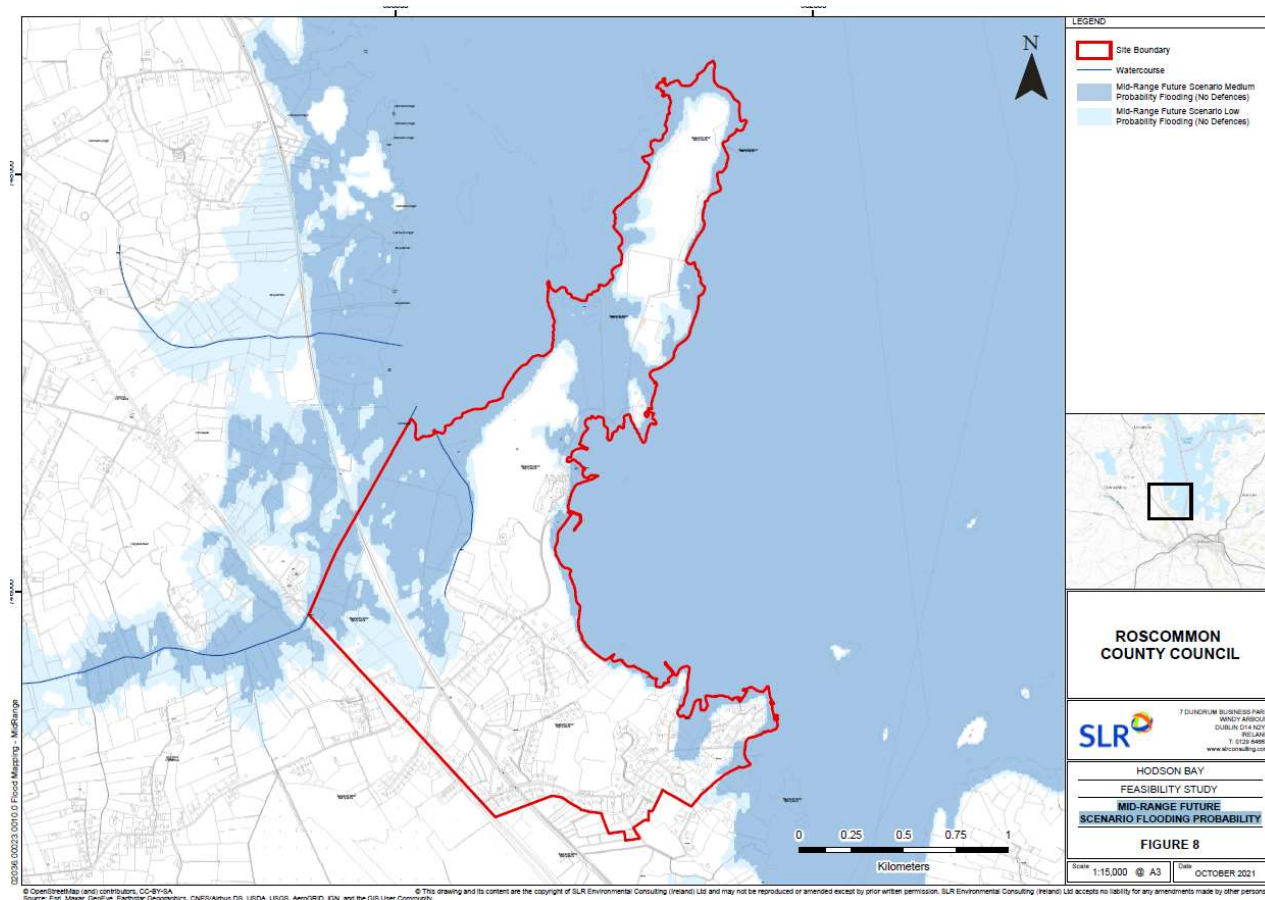


Figure 7 Flood Risk

3.5 Stakeholder Consultation

Several meetings took place over the course of Q3/Q4 2021 and Q4 2022. A summary of comments received is provided in the table below.

	Summary	Relevant Project
RCC	<p>General - Ongoing input into the report strategy and approach.</p> <p>Roads Department - Capacity constraints on the N61 and reference to ABTA study which is underway.</p> <p>RCC Greenway Development.</p> <p>Reference to feasibility study with respect to greenway.</p>	Spur of greenway will integrate with the Hodson Bay Facility.
Waterways Ireland	Meeting with Waterways Ireland to discuss proposed extension to the existing Marina and integration into	Extension to the existing marina and proposed promenade with the potential for integration into a wider public realm project.

	Summary	Relevant Project
	the proposed promenade development.	
NPWS	Meeting with representatives from NPWS.	No project specific recommendations but the following recommendations were provided: <ol style="list-style-type: none"> 1. That the project team contact Adrian Conway regarding nature-based solutions to flood and water management 2. that the project team request Breeding Curlew 'sensitivity' data. 3. That if the project screens in for Appropriate Assessment (which appears likely) the NPWS would expect, at a minimum, one complete year of surveys to include two visits in each season (breeding and wintering).
Failte Ireland	Discussions with Paddy Mathews regarding draft Tourism Strategy for Hidden Heartlands. Discussions also help with Adrian O'Donoghue Investment Analysis team	Draft of Tourism Strategy for Hidden Heartlands provided for reference.
Hodson Bay Hotel	Hodson Bay hotel recently purchase Yew Point with the intention of developing the peninsula in an environmentally appropriate manner. General issues raised relating to car parking, ongoing maintenance and management of Yew Point	The hotel intends to develop Yew Point Peninsula for tourism accommodation. 45 to 50 cabins over 6 clusters.
Baysports	Watersports are currently attracting up to 80k visitors per annum to their water sports facility at Hodson Bay. This is a significant level of activity for a facility that relies to an extent on temporary structures	Appropriate redevelopment of the facility to allow for sustainable growth of this business. Appropriate management of the area required.
Athlone Golf Club	Athlone Golf Club is an 18 hole golf club. It has a membership of c. 800 members and has benefitted from the covid bounce in terms of usage. The club and course sit at the heart of the area and the clubhouse itself benefits from stunning views of Lough Ree.	Better integration of the facility is needed, and improved club layout and facilities are also sought: <ul style="list-style-type: none"> • Driving Range • Practice Ground near the club house

	Summary	Relevant Project
Private landowners	Support for executive style home provision and eco / environmental educational facility.	Development is likely to be sought via a planning application.
Chalet Owners	There are 6 Chalets close to Yew point. Chalet no 4 has a mains sewer connection that was put in place a number of years ago as part its planning conditions at the time. The other chalets have septic tanks that are operational but fall short of today's standards and environmental considerations.	Would like to be open to discussions regarding a mains connection and are committed to participating in collaborative efforts to procure a pumping station to Irish Water Standards. This would pump the existing foul outfalls from the 5 chalets up into the main pumping station the Hodson Bay. It would also allow the septic tanks which have been in existence since the late 1960s to be decommissioned and filled in. Rectification of this issue will be subject to planning and agreement with Irish water

3.6 Future Development Proposals At Hodson Bay

3.6.1 'The Greenway' (Project Lead: Roscommon County Council)

The existing Old Rail Trail Greenway runs from Athlone to Mullingar, a distance of approximately 43km. Greenways Ireland was set up to promote greenways across the country and these links are purpose-built trails exclusively for use by cyclists, pedestrians and other non-motorised transport (such as equestrians). They are mostly traffic free in order to ensure user safety and promote sustainable travel.

The Greenway Team at Roscommon County Council are currently undertaking a public consultation exercise into the extension of the Greenway, to include a section from Athlone to Lough Ree.

The feasibility study is underway to consider options for the Greenway, known as the 'Mid-Shannon Greenway'; the new Greenway would connect areas such as Tarmonbarry, Ballyleague, Rooskey and Sliabh Bawn. The Mid-Shannon Greenway will be developed to link several existing walking and cycling trails to form a major new tourist attraction and is expected to cover approximately 73 kilometres.

Hodson Bay is the ideal development site for the new Greenway to traverse and it is recommended that discussions be continued to plan for this link and capitalise on improved access.

3.6.2 Lodges On Yew Point (Project Lead: Hodson Bay Hotel)

This project may involve the creation of a linear network of cabins, each eco habitat with dramatic and directed views through the trees and across the lake. The initial concept for this project has been developed by the Hodson Bay Hotel Group and is illustrated in Figure 8 below.

Although a Proposed Floating Public Boardwalk is shown indicatively on this figure, it is not considered feasible on environmental grounds. Inclusion of an extract of the design concept for Yew Point (Figure 8) is for illustrative purposes only and should therefore not be considered an endorsement for this element of the project on the part of RCC or the wider Steering Group.

All proposals at Yew Point will be developed independently by the hotel and will require the submission of a planning application supported by the relevant environmental assessment.

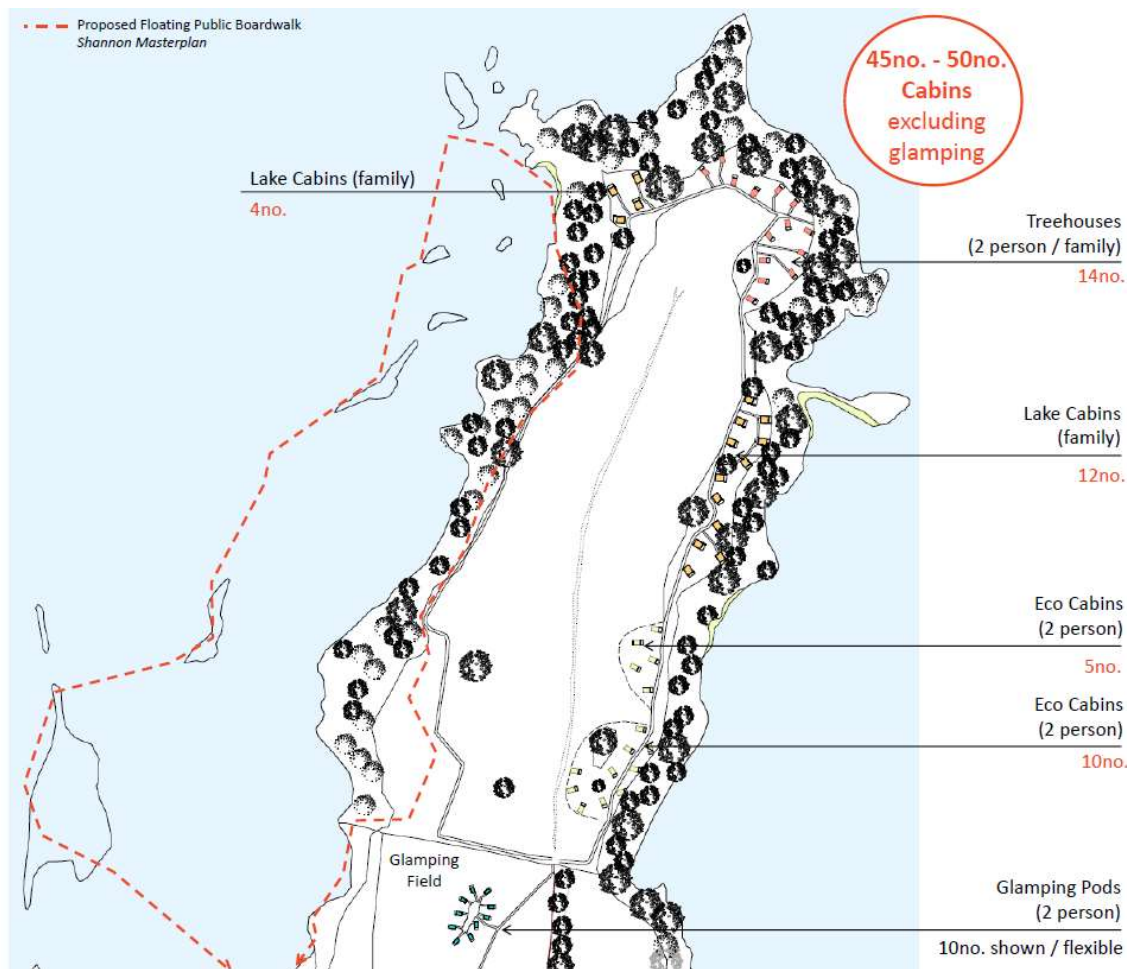


Figure 8 Concept Plan provided by Hodson Bay Hotel Group

4.0 Preferred Options Strategy

4.1 Key Issues

Key issues which the Preferred Options Report should address are captured below:

Issues	
1. Existing visitor experiences are fragmented across the study area.	There is significant scope to improve the coordination of activities across Hodson bay.
2. There are capacity constraints at the <i>existing</i> Marina	This discourages and prevents some visitors from accessing the site by boat. Exploring the Shannon by boat is one of the core visitor experiences on offer within Ireland's Hidden Heartlands.
3. Visitor experience opportunities poorly developed along the waterfront.	A better interface with the waterfront is needed and the quality of the buildings and public space needs to be improved significantly.
4. Access is limited with overreliance on access by car. Car parking is poorly located on prime lakeshore land.	Provide better access for walkers / cyclists. Remove car parking from the lakeshore and provide new spaces at other locations.
5. The area is highly sensitive environment and protected at European level	Evidenced based development required by supplying sufficient baseline information e.g. bird surveys. Prioritise areas that are previously developed.
6. Develop the Watersports facility more appropriately in the context of the geographical setting	As a current major attraction, Watersports draws significant numbers but needs review in the context of the overall offer at Hodson Bay. At times, the facility appears to comprise other aspects of the area: access to pillar viewpoint, tranquillity, traffic and build quality.
7. The lack of supporting services such as accommodation, food and drink	With the exception of the hotel, accommodation, food and drink options are limited.

4.2 Tourism Objectives for the Study Area

The vision for Hodson Bay as set out in this report is to better position the existing tourism offering within the Hodson Bay area, capitalising on improved access to and from public realm along the lakeshore. Through enhanced public realm provision, the site will become more attractive to a range of visitors throughout the year. It is the vision to redevelop the Hodson Bay area to be as sustainable and 'green' as possible, to enable a safe environment for non-motorised users, and to create a link at Hodson Bay with the proposed new 'Mid-Shannon Greenway'.

Objective 1: Improve the visitor experience and dwell time through the provision of a promenade, extended marina and water sports facility.

Objective 2: Secure these projects as a means of enhancing opportunities to be active in nature and improve both physical and visual connectivity with the River Shannon and Lough Ree.

Objective 3: Pursue a development strategy that is focused on improving the functionality and attractiveness of the waterfront area with an emphasis on areas that are already developed as opposed to undeveloped area with existing sensitive habitats.

Objective 4: Secure improvements to existing access arrangements through a range of sustainable transport measures and improved car parking arrangements

Objective 5: Focus on land in the ownership of RCC and other key stakeholders in order to secure delivery.

4.3 Concept Plan

From the spatial assessment of land ownership and environmental constraints and the high-level market alignment appraisal, the spatial strategy focuses on resolving key issues within the study area as well as development within areas that are already developed e.g. existing hardstanding, car parking or existing buildings.

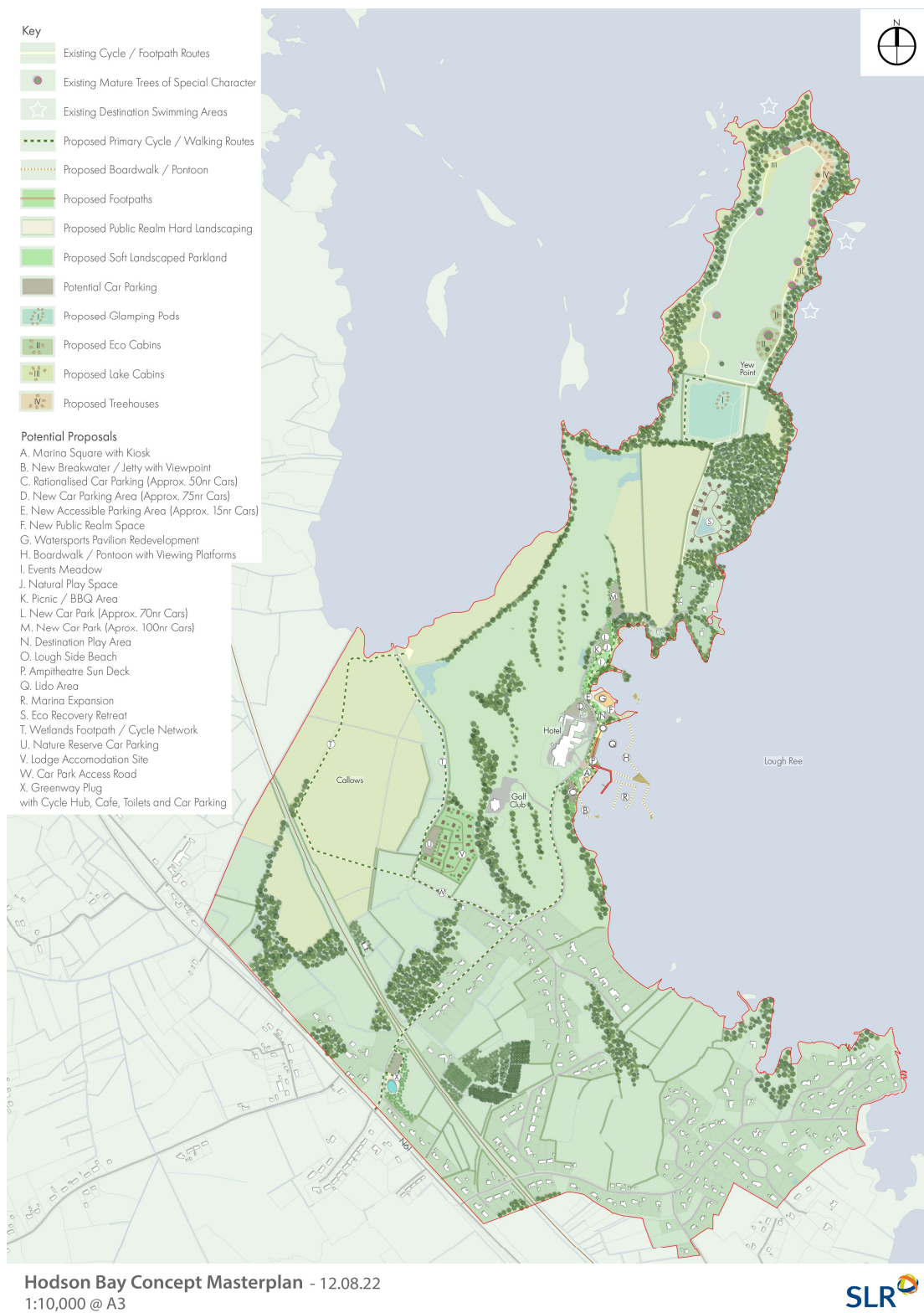


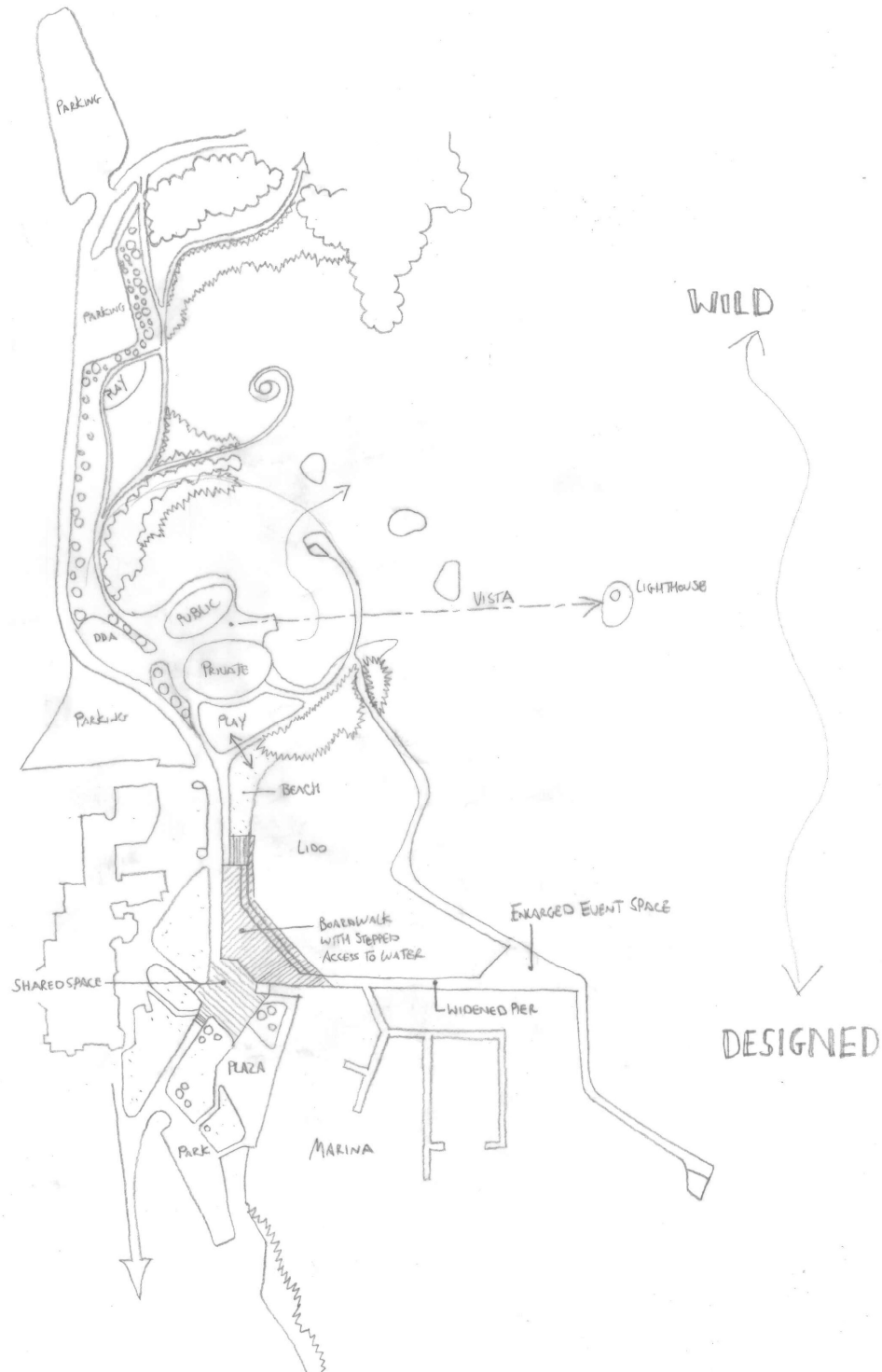
Figure 9 Hodson Bay –Concept Plan



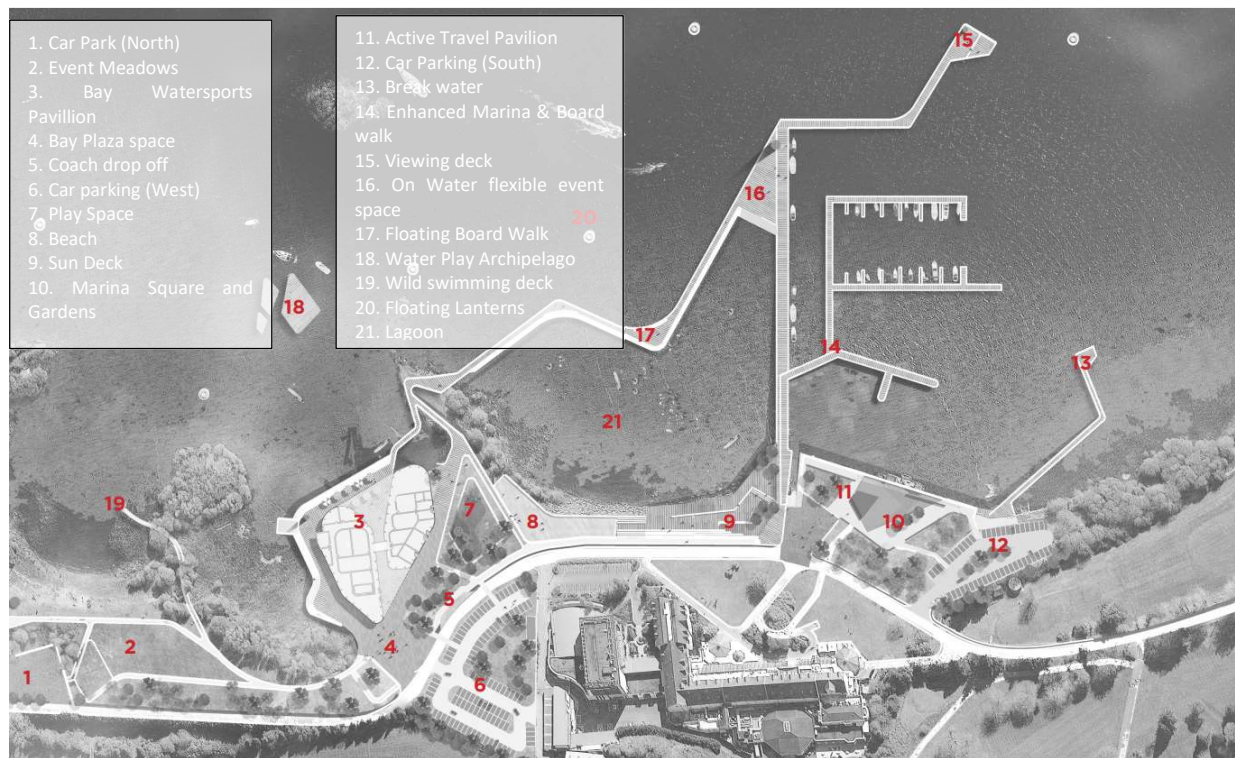
Hodson Bay Concept Masterplan - 12.08.2022
1:2,000 @ A3

4.4 Landscape Concept

The approach to landscape design at Hodson Bay is influenced by the existing landscape typologies of Lough Ree. The design enhances the landscape experience through carefully considered circulation and landscape interventions that respond to the character and context of the landscape.



To the north of site, the landscape is wilder in character with patches of deciduous woodland, grasslands and reeds that form around the water's edge. A simple treatment of boardwalks and hard surfacing forms the circulation for this part of the site. Materials and interventions have been selected and positioned to create a landscape treatment that both reflects and enhances the experience of the landscape focusing on character and place.



4.4.1 Water sports Pavilion

A Water sports Pavilion is proposed that provides facilities for on water activities such as boating and swimming with the provision of amenities including showers and a café. The landscape surrounding the building is formed as a plaza space with soft landscape areas and a board walk with steps down onto the water providing a continuous waterside circulation and connection along the Lough edge.

4.4.2 Beach, Sun deck and Lagoon

The landscape proposals to the south of the Pavilion are more structured and formal with a series of different programmed spaces proposed. An artificial beach and sun deck activate the water's edge providing opportunities for rest, relaxation and play forming the western edge of the 'Lagoon' which is a controlled stretch of water. The on water play space provides a controlled area of water for swimming, boating activities and various program events.

4.4.3 Marina Square and Gardens

The Marina Square and Gardens provides a flexible public space at the southern end of the site. The square addresses the marina, providing a space for programmed activity and events while serving as a functional

amenity for marina activities. A small Active Travel Hub provides a nodal point along the proposed cycle network providing information, repairs and a small kiosk/café.

4.4.4 Floating boardwalk

A floating timber board walk provides an on-water experience for visitors. The board walk is tethered to the Lough bed allowing it to move in tandem with the tides to avoid the requirement for a fixed structure. The profile of the board walk has been considered to create the appearance of a thin visual vector that sits on top of the water to maximise the views across the Lough. Large timber steps allow easy access to the water and provide ledges for sunbathing or sitting.

4.4.5 Circulation

The approach to circulation is to create a walking and wheeling priority development. The footway and cycleway hierarchy has been developed to create a comfortable and legible environment that allows visitors to experience the landscape in a sustainable and healthy way.

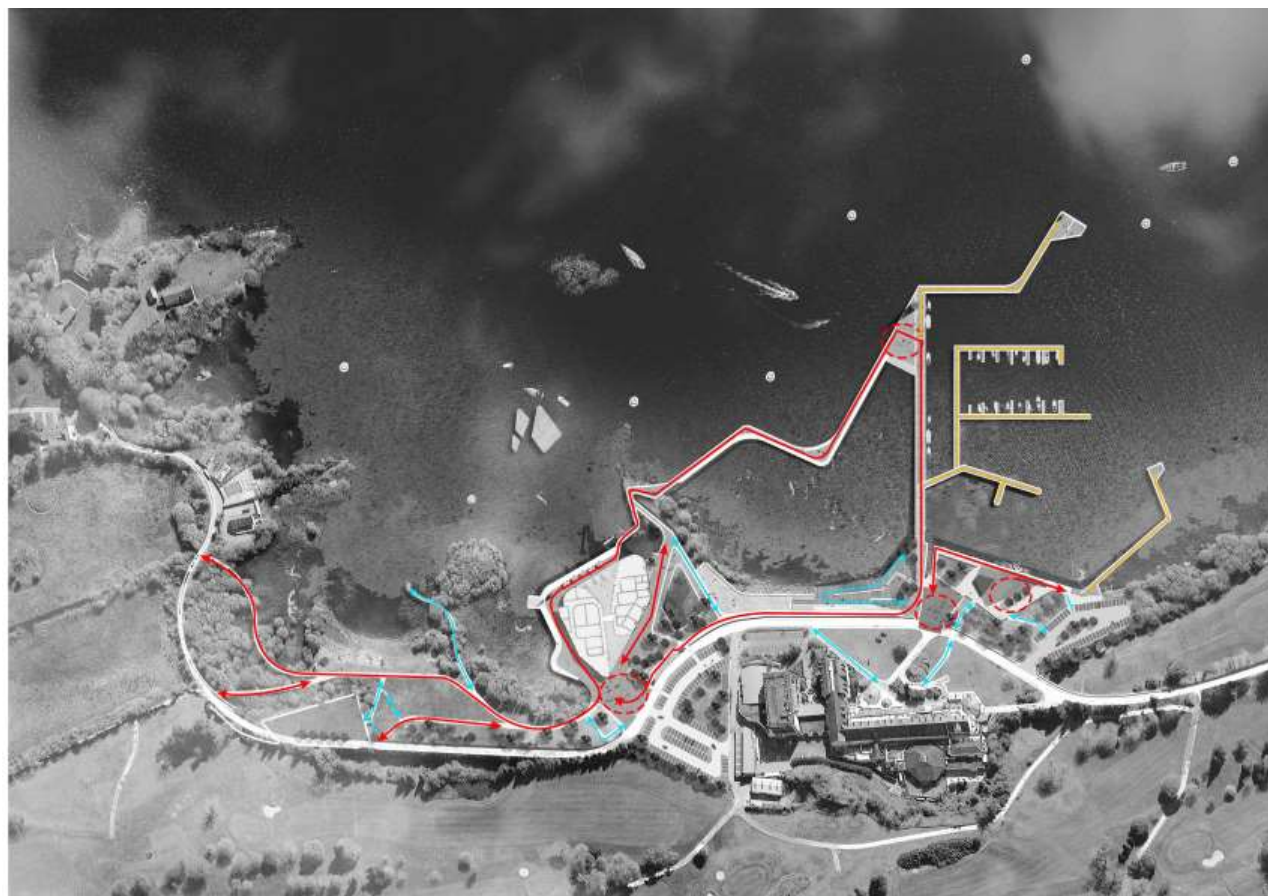
A key objective to create a pedestrian priority environment is the reduction of vehicle traffic, rationalization of car parking and the creation of a low-speed driving environment.

The primary circulation routes provide a waterside and on water experience. The walkways have been designed as a series of loops that create a strong continuous connection with the Lough edge allowing a sequence of views and a variety of experiences along the routes.

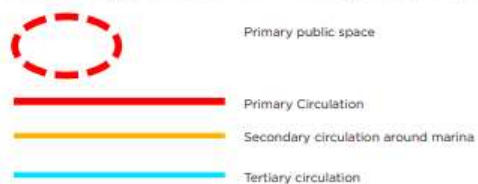
The secondary routes provide an enhanced marina experience through the rationalisation of the existing infrastructure to create a dynamic and comfortable walking experience for all abilities.

The new marina creates the opportunity for additional areas of circulation and waterside experience. The proposed spine of the marina creates a key connection to the floating pontoon walkway providing a comfortable and legible key route as part of an on-water walking circuit.

The tertiary routes provide less formal connection points between the variety of spaces that form the proposals.



Circulation Strategy Diagram



5.0 Projects

This study investigated an initial long list of potential projects which were tested against existing environmental constraints and for their marketability. The projects generally comprise a series of small to medium scale projects that taken together will significantly improve the visitor offer and accommodation at Yew Point.

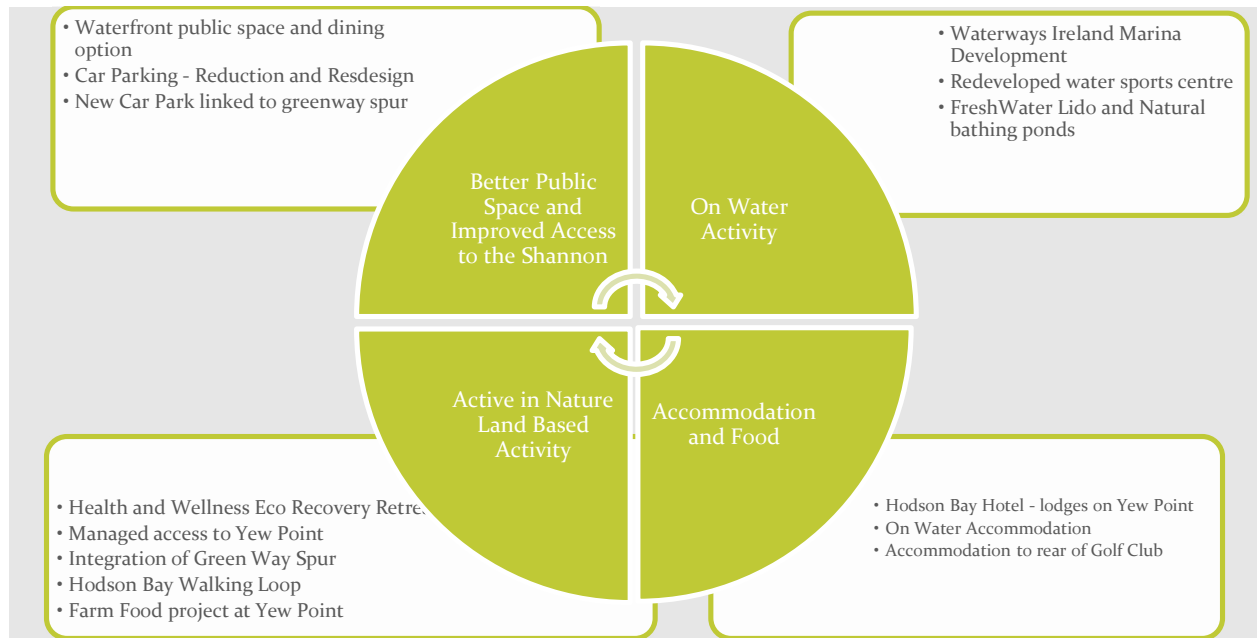
5.1.1 Initial Long List

The following initial long list of projects were initially considered as part of the initial design process.

1. Waterways Ireland Marina Development and Promenade
2. Redeveloped water sports centre
3. Waterfront public space and dining option
4. Car Parking - Reduction and Redesign
5. New Car Park linked to greenway spur
6. Hodson Bay Hotel lodges on Yew Point
7. On Water Accommodation
8. Accommodation to rear of Golf Club
9. Health and Wellness Eco Recovery Retreat
10. Fresh Water Lido and Natural bathing ponds
11. Managed access to Yew Point
12. Integration of Green Way Spur
13. Hodson Bay Walking Loop
14. Bird Look Out / Bird Hides
15. Farm Food project at Yew Point

These projects can be aligned to the following broad categories of visitor activity on the site:

- Better Public Space and Improved Access to the Shannon
- On Water Activity
- Active in Nature Land Based Activity
- Accommodation and Food



5.1.2 Options Appraisal and Assessment of the Higher Priority Projects

An options appraisal was then completed and presented a high-level snapshot of how the long list of projects performed against a range of criteria. It is used to provide a sense of strategic fit with the objectives at Hodson Bay. It is not scientific or exhaustive but helped to rank those projects that have the potential to perform well. It should also be noted that all proposals are also subject to completion of the relevant environmental assessment and a grant of planning permission.

- The highest scoring option was the Promenade and Marina Development given the placemaking impact and the fact it can accommodate new boating traffic – in turn bringing additional visitors to the bay. This option also produces a strong strategic alignment with the key objectives of the Shannon masterplan and in particular the objective of providing access to the water.
- Reimagining a new water play project at a redeveloped water sports/activity centre could play an important role in defining a unique immersive play experience at the bay. The idea of refreshing this offer also performed relatively well in the assessment.
- Managed access to Yew point (a nature trail linking with the Marina area) also scored well with strong performance on the visitor experience offer drawing footfall and building dwell time at the bay.
- On water accommodation and the self-catering lodges at Yew Point both performed well given the potential to increase visitor numbers and diversify the accommodation offer with a new quirky appeal. Alignment with strategic objectives is strong. Slightly more remote lodge accommodation behind the golf club and the idea of a health and wellness centre also performed well in the assessment.

The consideration of each of the 15 potential projects across these criteria allowed a high-level scoring or prioritisation exercise to be carried out which led to the identification of the 5 highest scoring projects to emerge.

1. The Promenade & Marina Development
2. Accommodation on Yew Point
3. Managed access to Yew Point
4. Reimagined immersive waterplay experience
5. Food Provenance Project

Priority Projects

In terms of the development of a major attraction, the project that closely aligned with this possibility in terms of numbers of visitors per annum is the redeveloped waterfront and marina as a major placemaking initiative. Of the shortlist, two have been prioritised within this preferred options report:

1. The Promenade & Marina Development
2. Reimagined immersive waterplay and sports experience

Details of the priority projects are set out below.

5.3 Promenade & Marina Development

This priority project involves creating improved facilities for boats and the development of access to the water from land and vice versa. There is also the potential to create an attractive walkway out onto the water for recreation.

The project will further develop, improve and extend the existing marina to be capable of hosting c.50 new berths for cruisers and visiting craft and to provide some new boat servicing and commercial facilities that provide a service experience that one would expect within a major inland waterway hub.

The marina should be an integral part of the public realm and promenade design and have adequate provision for drop off and short-term parking alongside pontoons, small boat and trailer parking and a hard standing area to facilitate light boat maintenance. Water, electricity and waste facilities in addition to showers, toilets, washing machines, laundry facilities and wifi should be provided to establish Hodson Bay as a major service facility for waterway users.

The benefits of this project are economic and social and can be summarised as follows -

- The new facilities create greater capacity for boats to berth at Hodson Bay and to use facilities in the area for activity, accommodation and hospitality.
- It will create greater footfall for existing businesses in the area including attractions, restaurants and the Golf Club etc.
- It creates additional employment and secondary spend from suppliers.
- It puts Hodson Bay more strongly on the map as regards water-based facilities.
- The Economic benefits of the above are significant and are set out later in this paper.
- The creation of new, accessible outdoor space.
- Improved public realm.

The Promenade

A key element of this project is to enhance the visitor experience through the development of a continuous promenade along the length of the shore. Focusing on the improvement and redevelopment of Roscommon County Council's land asset along the shoreline and providing public access to the River Shannon, will create a pedestrian priority environment. The approach will be achieved by reducing vehicle traffic, rationalizing car parking and the creation of a low-speed driving environment.

This promenade will also be developed to integrate proposals for the extension to the Waterways Ireland Marina and will also extend to integrate the redeveloped watersports pavilion. The landscape surrounding this building will include a plaza space with soft landscape areas and a board walk with steps down onto the water providing a continuous waterside circulation and connection along the lake edge.

The promenade will comprise of 4 main elements:

Beach, Sun deck and Lagoon

The landscape proposals to the south of the redeveloped watersports pavilion are more structured and formal with a series of different programmed spaces proposed. An artificial beach and sun deck activate the water's edge providing opportunities for rest, relaxation and play forming the western edge of the 'Lagoon' which is a controlled stretch of water. The on water plays pace provides a controlled area of water for swimming, boating activities and various program events.

Marina Square and Gardens

The Marina Square and Gardens provides a flexible public space at the southern end of the site. The square addresses the marina, providing a space for programmed activity and events while serving as a functional amenity for marina activities. A small Active Travel Hub provides a nodal point along the proposed cycle network providing information, repairs and a small kiosk/café.

Floating boardwalk

A floating timber board walk provides an on-water experience for visitors. The board walk is tethered to the Lough bed allowing it to move in tandem with the tides to avoid the requirement for a fixed structure. The profile of the board walk has been considered to create the appearance of a thin visual vector that sits on top of the water to maximise the views across the Lake. Large timber steps allow easy access to the water and provide ledges for sunbathing or sitting

Wild Swimming Area to the North of the Watersports Facility

To the north of the site, the landscape is wilder in character with patches of deciduous woodland, grasslands and reeds that form around the water's edge. A simple treatment of boardwalks and hard surfacing forms the circulation for this part of the site. The area is to remain undeveloped and maintained for wild swimming only.



Figure 10 Floating Boardwalk and Lagoon

Recognised Gap in the market

A new Marina will create a new key access point on the River Shannon which will increase the potential for a stopping point for Shannon cruisers and pleasure boats. The aesthetic benefits are an added value of the proposed development which currently does not make the most of the natural surroundings.

The marina development supports the growth of a responsible regional business and could provide additional economic spending for local businesses via additional visitors to the area. This could be further enhanced by an increase in employment, job creation and new skills development in boating, waterways etc, alongside volunteering opportunities for local residents, young people and those wishing to have a water based working holiday experience.

Strategic / Policy Alignment / Market Demand

Waterways Ireland has a strategic ambition to improve quality access points to the Shannon waterway generally. Market demand for boating on the River Shannon is long established and significant additional potential was identified in the Shannon Tourism Masterplan. The County Development Plan 2022-28 encourages tourism use as an integral part of the economic profile of County Roscommon recognising the key strategic location of the county and its access to tourist sites and attractions. It will enable the expansion of existing tourism and leisure facilities, ensuring greater access to facilities for the general public.

The development of the Marina is also directly aligned to the Roscommon Tourism Strategy 2017-2022 and will reinforce collaborative working between Roscommon County Council, Fáilte Ireland, Waterways Ireland, tourism

businesses, and the local community. It will serve to deliver on the main themes of the Shannon, Mighty River of Ireland, A Tourism Masterplan for the Shannon 2020 – 2030.

The relevant Fáilte Ireland proposition for this area, Ireland's Hidden Heartlands encourages the exploration of Ireland's natural rural beauty and encourages activity and relaxation centred on rural communities across the geographic land and water trails showcased by the iconic River Shannon, the redeveloped marina will encourage users to be Active in Nature and will introduce the area to new visitors (Yours to Uncover).

An improved marina will also expand on the Lough Ree experience (Lough Ree and Mid Shannon Wet & Wild Lands, A Shared Ambition, 2017). Development of the Marina also delivers on the County Roscommon, Tourism Statement of Strategy & Work Programme 2017 – 2022 as it requires collaboration with neighbouring counties and national bodies and when realised will promote tourist experiences in a cohesive and proactive manner.



5.3.1 Economic Impact

The economic impact of a marina development is potentially significant with the main impact coming from boating business but also from improved Promenade and water sports facility bringing in additional visitors. This area could become a stop off point for cruisers up and down the Shannon with additional spend opportunities for local café's, restaurants, hotels, activities and shops. It will undoubtedly diversify the rural economy and encourage secondary enterprise development that complements the marina activity.

Primary Users/Beneficiaries

- The local community of Hodson Bay area and the surrounding area.
- Boat owners / leisure cruise market from a much wider catchment area.
- Holiday makers / visitors.
- Families.
- Adult recreational users.

Visitor Segments / Behaviours

Market demand for boating on the River Shannon is long established and additional potential was identified in the Shannon Tourism Masterplan.

The main market segments that will be attracted by the Marina development are the Culturally Curious and the Great Escapers. Social Energisers are a less obvious immediate market but there is potential for this market to grow.

Relevant behaviours of various main market segments include:

Culturally Curious are those who travel independently or in couples and:

- They want to visit new places and expand their travel experience.
- They are well travelled and want to discover the hidden stories of a destination.
- They are likely to base themselves in a location and travel around exploring the wider area during the day.
- They want to relax, enjoy and explore the natural environment and experience the real Ireland by being active (walking, cycling etc.).
- They want to really explore a place and feel good socially, physically, mentally and spiritually.
- They will pay extra for quality products and experiences.
- Creating a good, cultural holiday choice is important to them.

Social Energisers are early adopters, trend setters, they travel in groups or couples

- They are influenced by brands, reputation and the 'next big thing' and have 'FOMO' (fear of missing out). They travel a lot, experience a lot and do a lot - they expect easy access, good facilities, relevant, local and readily available information and a fun, genuine local entertainment. This market is less likely to be boat owners and users but could potentially be cruise market potential or attracted to other water-based activities

Great Escapers travel mainly in couples but sometimes with a young family.

- They are seeking downtime to escape from their busy lives and like to connect to nature.
- They are all about making treasured life-long memories while on holiday and tend to travel off season in Spring and Autumn.
- They are independent travellers, touring mainly in a rural area to discover the local hidden gems.
- They enjoy outdoor activities such as walking, hiking, cycling, water activities, boat trips etc.

Operational/Maintenance issues

- Waterways Ireland provides public moorings of different types all along the 1000km of navigable waterway which are managed by them and so they would be responsible for maintenance of the Hodson Bay marina.
- Waterways Ireland public moorings are provided for the temporary enjoyment of tourist and recreational locations by boaters. Public moorings facilitate visitors and tourists to tour and spend
- The operation would fall under the collective operational responsibility for all Waterways Ireland marina sites.

Funding & Commercialisation

- The Marina development would be funded by Waterways Ireland.
- There may be additional funding via the Rural Regeneration & Development Fund.
- The Department of Transport may be able to assist.

Partners

- Roscommon County Council.
- Private Sector – potentially Hodson Bay Hotel or other similar private sector interests in the area.

Project Management/Procurement

- The project would be managed by Waterways Ireland.
- Existing marina – assess suitability, review and establish land ownership issues, determine planning issues, scale and cost of the build / infrastructure needed.

- Establish funding channels. If a public funding agency is involved there will be strict procurement regulations to follow but these should be embraced as they are designed to protect each party. The time taken for the procurement process should be built into any timetable budget.

Risk Assessment

- Potential significant effect on the environment. This issue will need further and careful consideration, but similar facilities have been created in the past in very sensitive environments.
- Lack of funding – This project will have to compete with other similar developments around the country within Waterways Ireland.
- Ongoing maintenance of the marina will be expensive and must be fully taken onboard in any longer-term operational budgets of Waterways Ireland.
- Failure to properly integrate into sister outdoor facilities in the Hodson Bay area leading to the Marina not being adequately integrated into other complementary facilities.

Timeline: It is anticipated this will be a long-term project taking up to 5 years.

5.3.2 Financial Model

This financial model outlines all the potential income sources and cost areas that would be involved in this Promenade and Marina project over a 10-year period. The key factor for this financial model is to establish a range of assumptions that are grounded in evidence and based on reasonable activity levels.

Income sources

The income sources are listed as follows along with an indication of the assumptions used to set the financial figures against the income areas.

Berthing in the Marina - this area includes both short-term berthing charges to stay overnight or equivalent short-term stays and longer-term rentals for keeping boats full-time in the Marina or for a full season. The assumption is made that there will be space for 50 additional Berths and that this will be split between approximately 50% short-term stays and 50% longer-term stays. The rates for berthing are based on an equivalent Marina in the Midlands.

In order to get the rates of occupancy, other similar marinas were looked at. As no Marina would publish their occupancy, consultants' reports on potential Marina developments that had examined others were used along with the practical experience of the Kilrush Creek Marina in Kilrush Co. Clare. The rates of occupancy vary across the seasons and a very prudent range was used for the purposes of the financial projections. The rates of occupancy are assumed at 30% of capacity for short-term stays for the main summer months and at approximately 20% in shoulder season and 5% in low season. For the longer-term berthing, the charge will be on a weekly basis and the rates of occupancy are assumed at the same percentages for each of those seasons.

The number of available berthing spaces, the number of days, the rate per day or week and the occupancy rate are all combined to create our estimate of income from this source.

The visitor numbers are set out below and are generated on the assumption of approximately 3 people on average per boat. This generates a total visitor number of 4,295 for year 1 across both the short-term and longer-term berthing activity.

Showers & Lockers - it is assumed there is a nominal charge of €1.50 for showers and an additional €2 per locker for storage of personal items when staying at the Marina. These are average levels for other similar offers in leisure type facilities.

Coffee dock and snacks - There will be provision for a small number of temporary pop-up style coffee and snack facilities. These will be designed appropriately to reflect the passing nature of the trade and to fit into the general

ambience. Subject to agreement with Waterways Ireland, there will be a small number of outdoor seating areas on the Marina for coffee and snacks connected to the pop-up facilities. WWI approval will be required for this.

It is assumed for the purposes of the financial model that there will be 2 such facilities and both let out to local providers on an annual licence basis. It is assumed that each facility will generate a rental of €500 per month or €6,000 for the year.

It is also assumed that there will be space for vending machine for water and snacks provided it can be done in a very presentable way alongside the pop-up coffee facility.

5.3.3 Capital Costs

There is a significant capital cost of extending the Marina to accommodate an additional 50 berths. There is some additional boardwalk area to be created and boat berthing bays along with slip ways and tie up facilities. The Capital costs are set out in Section 6 below.

5.3.4 Operating Costs

The operating costs for the Marina and promenade area are all set out below. The costs are based on the scale of the facility, the number of berths and the projected levels of activity.

The costs of the actual Marina operation at Kilrush Creek Marina were used as a guide as it is similar in scale.

The main management and operation of the facility will be carried out by a single person with a wide remit from promotion and marketing to actual day to day operations and dealing with customers and all upkeep and maintenance. Any heavier maintenance and servicing of Marina based equipment and infrastructure will be contracted out to a relevant expert.

The overheads are all set out on schedule 5 and the detailed assumptions made to build up the projected costs are included in schedule 6.

The main cost areas include staff costs, Insurance premium and marketing and promotion costs.

The level of these 3 significant costs are as follows -

Staff Costs	€33,257
Insurance	€10,000
Marketing & Promotion	€10,000

5.3.5 Operating Model

There is really only a single recommended operating model for the Marina facility and potentially more options for the Promenade as a wider facility.

The Marina will be operated by WWI. The Promenade area does not require a complex management operation but does need to be formally under someone's control. The promenade itself could remain under Council control. The operation of the promenade will involve managing lease negotiations and practical arrangements with pop-up businesses and cleaning and maintenance of the space. There is also some oversight required to ensure by-laws are followed and spaces are not encroached on unreasonably.

The projected income and expenditure account for the first 4 years of the combined Promenade and Marina project is set out in the table overleaf.

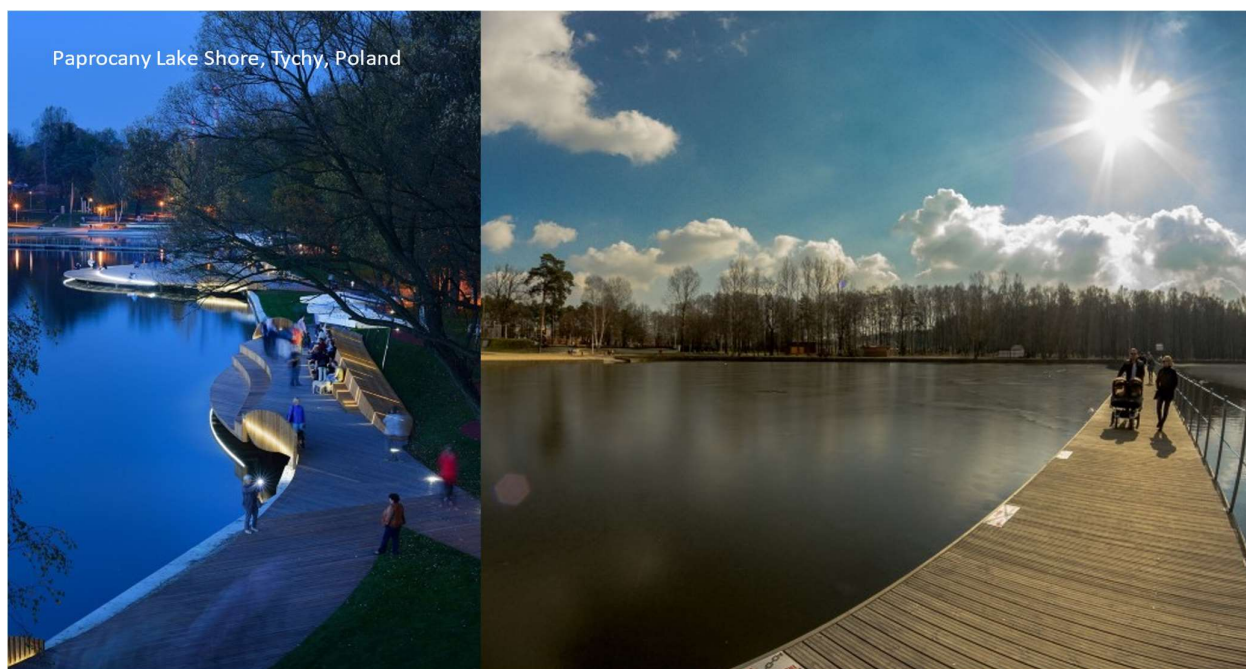
Table 1 Projected income and expenditure account

Hodson Bay Promenade & Marina Development					
	Year 0	Year 1	Year 2	Year 3	Year 4
Income Generated	-	70,411	78,218	84,048	89,255
Staff Costs	15,000	33,257	34,255	35,283	36,341
Operational Costs	88,000	30,200	32,269	34,003	35,276
Administration Costs	25,000	5,700	5,814	5,930	6,049
Total Overheads	128,000	69,157	72,338	75,216	77,666
Retained Profit	- 128,000	1,254	5,880	8,833	11,588

5.3.6 Precedent -Lakeshore Promenade

Precedent -Lakeshore Promenade Paprocany lake shore, Poland, and Blue Bergen, Norway

Completed in 2014, Paprocany lake is the place where inhabitants of Tychy, Poland often spend their spare time. Near the promenade is a recreation centre with many recreation and sporting attractions. The project focused on exposing values of the landscape and expanding recreational offer for residents and visitors. True Blue Bergen in Norway is under construction and due for completion in 2023 comprising 1km of new waterfront.



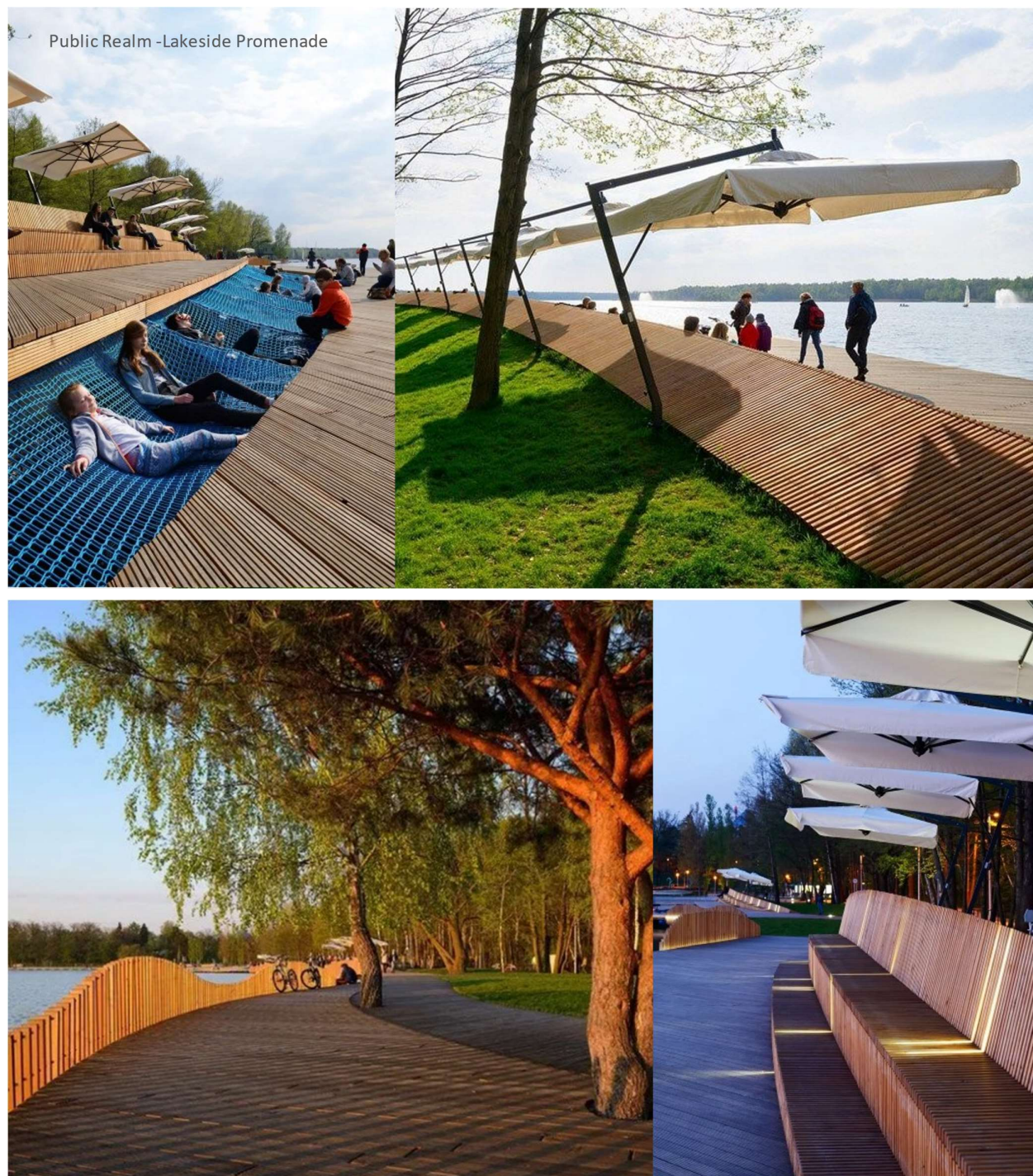


Figure 11 -Paprocany Lakeshore. Poland



Figure 12- True Blue Bergen, Norway

5.4 Reimagined Water Play Experience

The Hodson Bay location has proved extremely attractive for groups and individuals seeking an exciting and entertaining experience on the water. There has been a particular interest amongst school and corporate groups as the facilities are ideal for this market. There is an opportunity now to reimagine the existing water sports facilities at Hodson Bay.

The existing facility has been successful in establishing the location as a water sports area, but the facilities are not at the standard currently expected at quality water parks. The arrangement at present involves a number of temporary structures arranged around untidy landscaping, with a lack of signage and poor branding collectively contributing to a general lack of professionalism. This has not however deterred visitors and the current operation has, in fact become a bit overwhelmed due to excessive numbers at peak times of the year. Ideally, the operators would like to spread the visitor numbers across a much wider period of time however they are limited by water temperature and as of now, most of the demand is during the peak months of May to August.

There is strong appeal to youth and school groups from all over the country who typically arrive by coach, staying for a morning's activity and leaving again at lunchtime.

The Scandinavians have a well-earned reputation for maximising outdoor space and waterside areas and have developed excellent models for water parks. Closer to home, 'Let's go Hydro', the site of an old reservoir, outside Belfast, first opened in 2018 and has since expanded its offering to glamping pods, luxury safari tents, igloo huts, an entertainment programme, drive in cinema experience, a beach area and lido, kayaking, canoeing and a retractable spectator area. It is a great example of how water sports and water-based experiences can be key visitor attractions on the type of integrated facilities being developed. There is a full range of integrated facilities and the entertainment, whilst based around the central water feature similar to the existing one in Hodson Bay, has been designed to expand the season. With plans to expand and open a Hodson Bay in Dublin, there is clear evidence of the popularity of such locations and our research has shown there is an opportunity for Hodson Bay to lead the way in this art of Ireland for this type of development

This concept proposed is to re-imagine a new immersive water experience along similar lines to Let's Go Hydro but with a Scandinavian style leaning that is more sympathetic to and encompassing the natural environment line. The increase in visitor footfall and spend this will generate, would increase the economic impact and provide access for many more people to this very attractive area.

This redeveloped facility will provide facilities for on water activities such as boating and swimming with the provision of amenities including showers and a café. The landscape surrounding the building is formed of a plaza space with soft landscape areas and a board walk with steps down onto the water providing a continuous waterside circulation and connection along the lake shore.

The basic design strategy for this element is to present two buildings within one structure. Anchored on an axis with the historic Hodson pillar, the building is split into two distinct blocks: The first houses the water sports facility and is located adjacent to the water's edge. The second contains publicly accessible accommodation such as showers, toilets and the large cafe that overlooks the water and the public plaza to the south.

The new building is wrapped in timber fins and sits on a platform raised above the water level taking as its conceptual influence the historic lake Crannogs. This gives the complex an illusion of floating above the water whilst allowing water ecology to thrive under it.

The majority of the building is at ground level with two exceptions: The watersports section houses the administrative offices for the facility in an upper floor whilst the cafe has a mezzanine that offers elevated views over the lake.

By keeping proposed cafe and watersports facility together there is guaranteed footfall at the café during peak season. This could lead to higher rental income and/or for this footfall to cross subsidise longer opening season for café. One operator could also potentially run both elements. Public space will also be improved as a result

of redevelopment and access to the water's edge will be provided. Through its redevelopment, flooding of existing building can also be resolved.

Recognised Gap

This concept proposes to re-imagine a new immersive water play experience along Scandinavian lines. The increase in visitor footfall and spend would increase economic impact and provide access to new experiences

There are multiple opportunities for the demonstration of innovative thinking and implementation in this project from use of natural materials to demonstrations, themed events and collaborations

Strategic / Policy Alignment

This active water project delivers on a number of strategic objectives including those contained in the County Development Plan 2021-27 to promote tourism as an integral part of County Roscommon's economic profile. It will strengthen the significance of Hodson Bay as one of the main tourism/recreational attractions in County Roscommon and regionally while supporting the future expansion of existing tourism whilst benefiting the local community

The development will serve to deliver on the themes of the Shannon, Mighty River of Ireland, A Tourism Masterplan for the Shannon 2020 – 2030, namely Shannon Journeys and Adventures

Primary Users/Beneficiaries

- Population of Hodson and the surrounding area
- Domestic visitors - weekend, high and mid-season
- National Visitors - weekend, high season
- Families
- Groups
- Adult recreational users

Visitor Segments / Behaviours

Strong market demand – similar projects such as Aqua Splash have grown to meet public demand and are proving increasingly popular. Relevant behaviours of market segments include the culturally curious, social engineers and great escapers.

Operational/Maintenance issues

- Need to source a project leader and operator for this idea
- Health and Safety regulations
- Insurance provision needs consideration
- Caretaking and ongoing maintenance
- Weatherproofing where possible

Funding & Commercialisation

- Private sector developed/operator potentially from the hospitality sector bringing private investment to the project
- Roscommon County Council
- Fáilte Ireland
- Waterways Ireland

Partners

- Roscommon County Council
- Waterways Ireland
- Fáilte Ireland Active seasonal programme with education providers

Project Management/Procurement

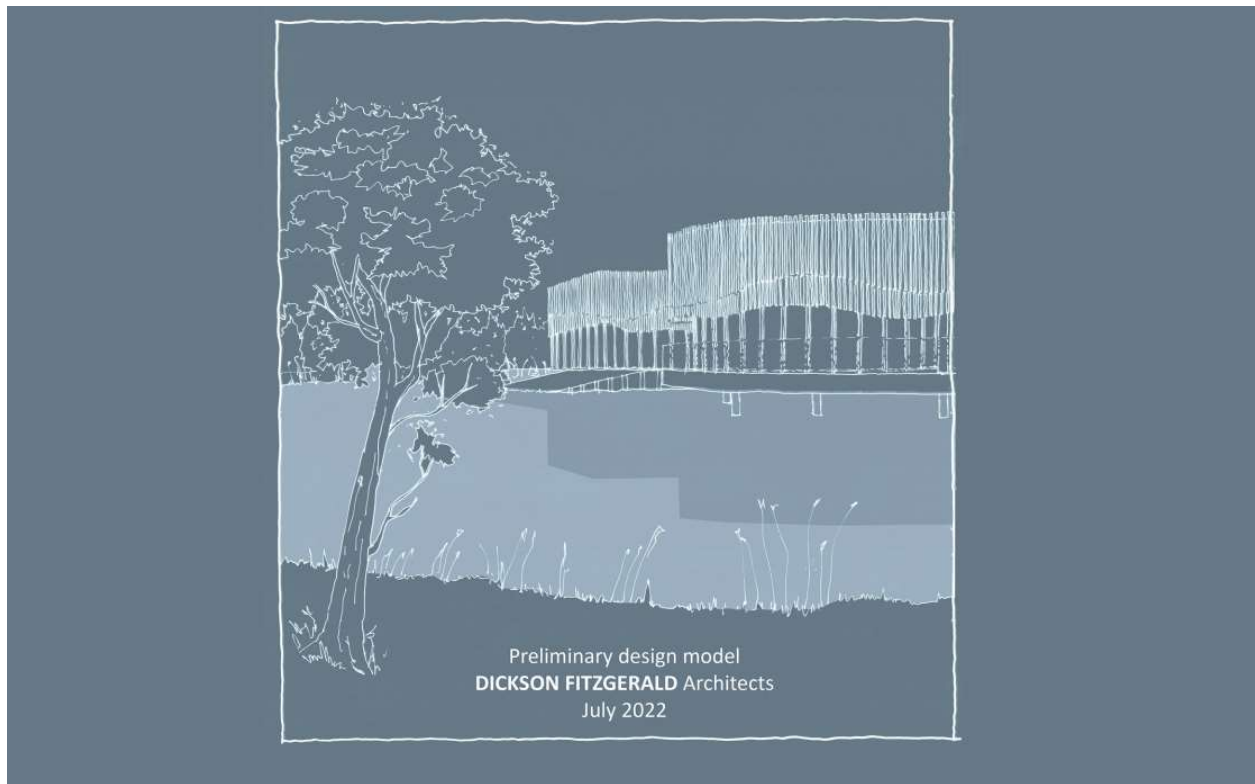
- Private operator
- branding and marketing to raise awareness

Risk Assessment

- Requires significant investment / securing adequate funds and locally generated match funding.

Lack of sufficient investment Timeline

This project could be operational within 5-7 years.



5.4.1 Description of the proposed Watersports facility and Café

The new facility would involve the combination of a newly designed fit for purpose building with a more attractive and appropriate facade replacing the existing building currently housed by the water sports operator, combined with a well organised combination of water sports activities.

The following is an outline of what is proposed:

- A main pavilion building created as a single unit but housing two distinct operations. The building design would reflect of the natural reeds in the immediate environment and is designed to sit above the water at a raised level. The building would be designed such that it is a practical services and support building not capable of flooding as the existing building does.
- An enhanced food and Beverage offer in the form of a two-storey café with the upper floor also serving as a viewing platform.
- The removal of all temporary structures and create tidy practical pathways and slipways down to the water.
- There would then be a range of add on products such as a high dipper with a steep drop to the water, more advanced floats further out and an area for small pedal boats and canoes.

A Preliminary Design Model (Figure 13 and 14 overleaf) has been prepared by Dickson Architects and a full schedule of accommodation is provided in Appendix 05.

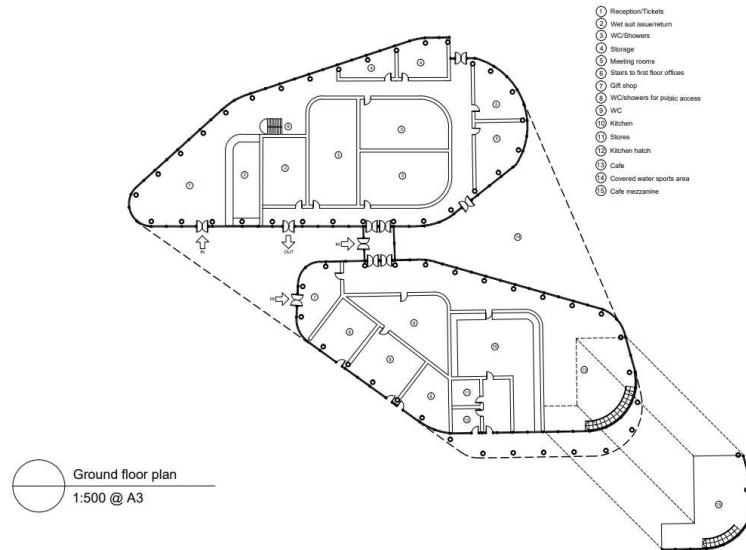


Figure 13 Ground Floor Plan of Proposed Watersports Facility and Cafe

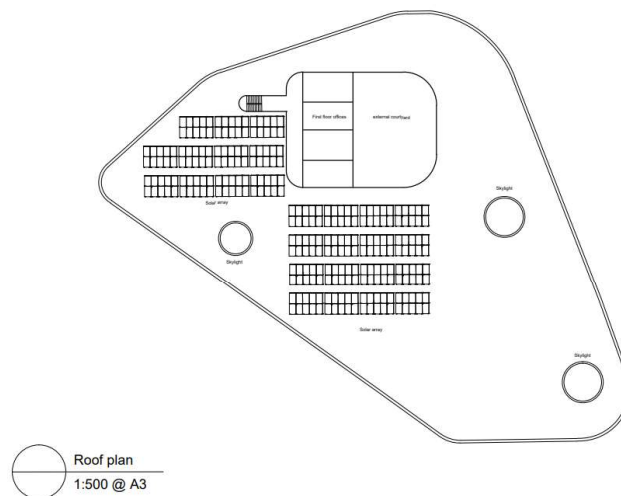


Figure 14 Roof Plan of Proposed Watersports Facility and Cafe

5.4.2 Financial Model

This financial model outlines all the potential income sources and cost areas that would be involved in the Re-imagined Watersports and cafe project over a 10-year period. The key factor for this financial model is to establish a range of assumptions that are grounded in evidence and based on reasonable activity levels.

5.4.3 Income sources

The income sources are listed in the figure below and include main activities at the Waterpark along with the café income. The table also gives an indication of the assumptions used to set the financial figures against the income areas.

5.4.4 Capital Costs

There is a significant capital cost of this new pavilion building to house the 2 concepts together. There is also significant additional landscaping around the facility, additional paths, slipways and supporting services. The Capital costs are set out in Section 6.

5.4.5 Operating Costs

The operating costs for the combination of the Watersports Facility and Cafe area are all set out below in section 5.4.6. The costs are based on the scale of the facility and the activity levels anticipated.

Waterpark & Café				
2. Income Projections				
Waterpark Income - Main Product				
	Year 1	Year 2	Year 3	Year 4
No of Users	54,432	54,432	54,432	54,432
Price per User	6.0	6.3	6.6	6.9
Revenue	326,592	342,922	360,068	378,071
Additional High Feature				
	Year 1	Year 2	Year 3	Year 4
No of Users	5,443	5,443	6,319	6,521
Price per User	15.0	15.8	16.5	17.4
Revenue	81,648	85,730	104,504	113,230
Pedal Boats				
	Year 1	Year 2	Year 3	Year 4
No of Users	3,931	3,931	4,077	4,111
Price per User	15.0	15.8	16.5	17.4
Revenue	58,968	61,916	67,427	71,381
Kayak/Canoe				
	Year 1	Year 2	Year 3	Year 4
No of Users	3,931	3,931	4,077	4,111
Price per User	20.0	21.0	22.1	23.2
Revenue	78,624	82,555	89,902	95,175
Total Waterpark Revenue	545,832	573,124	621,900	657,857
Other Revenue - Café				
	Year 1	Year 2	Year 3	Year 4
Café Visitors	31,450	31,450	32,618	32,886
Café Spend per Head	€ 8	7.9	8.3	8.7
Café Turnover	€ 235,872	€ 247,666	€ 269,707	€ 285,526
Sub Total	€ 235,872	€ 247,666	€ 269,707	€ 285,526
TOTAL REVENUE	€ 781,704	€ 820,789	€ 891,607	€ 943,383

5.4.6 Summary - Projected Income & Expenditure Accounts

The projected income and expenditure accounts for the first 4 years of the combined Watersports facility and café are shown in the table below.

Table 2 Projected income and expenditure accounts

Hodson Bay Watersports Facility & Café Projected Income & Expenditure Accounts - Summary					
	Year 1	Year 1	Year 2	Year 3	Year 4
Income Generated	-	781,704	820,789	891,607	943,383
Staff Costs	15,000	276,245	284,533	293,069	301,861
Operational Costs	88,000	326,500	337,255	351,235	362,071
Administration Costs	25,000	44,900	45,798	46,714	47,648
Total Overheads	128,000	647,645	667,586	691,018	711,580
Retained Profit	- 128,000	134,059	153,203	200,589	231,803

5.4.7 Precedent - Whitlingham Activity Centre

Precedent - Whitlingham Activity Centre, Norfolk Broads and Kastrup Sea Bath, Copenhagen

The Whitlingham project involves accommodation pod type facilities on a waters edge in the Norfolk Broads. The centre is an activity-based centre with accommodation onsite and is directed at both a domestic and international audience with a particular focus on school visits. The Kastrup Sea Baths is an elaborate water play installation in Copenhagen-multiple diving boards in an curved arena.



Figure 15- Kastrup Sea Baths, Copenhagen

6.0 Transport Strategy

6.1 Future Land Uses and Trip Generation

The full redevelopment plans within the Hodson Bay area include the following:

- **Watersports Facility Redevelopment** – to incorporate a new café facility.
- **Waterfront Experience** – which will include redevelopment of the existing waterways Ireland marina and promenade, and development of the area directly north of the Watersports facility to include a beach and further watersports area on the lake for launching of small boats, canoes, kayaks, paddle boards.
- **Nature Reserve/ Wetlands** – the area to the far west of the Hodson Bay area is to be maintained as a nature reserve/ wetlands area; the nature reserve will serve to protect the existing natural flora and fauna while encouraging visits to the site by the general public.
- **Pedestrian/ Cycle Route** – as per the Preferred Options Report, there is to be a new circular route created for use by pedestrians and cyclists. This is to be incorporated with the access road to provide safe routes within the site for non-motorised users. Ideally and this is subject to further discussion with the hotel, this will also include link to the existing paths around the Yew Point area.
- **Tourist Accommodation** – there are additional areas proposed for future development of tourist accommodation in the form of glamping pods, eco cabins, lake cabins and treehouses. There is anticipated to be up to 50 cabins and 10 glamping pods at Yew Point set out within six clusters.

The below sub-sections provide a rough estimate as to the number of trips which may occur to the site based on the full development of the Concept Plan. This has been predicted to help determine the amount of parking required to service the site as a whole and is considered a 'high level worst case scenario' assessment.

6.1.1 Redeveloped Watersports Facility

The existing watersports facility currently has a live planning application with Roscommon County Council (ref: 2262) for the redevelopment of the area to include the erection of 17 no. marquee type structures along with 36sqm of offices, outdoor shower areas, realignment of fencing and ancillary works.

The existing Watersports facility trips of up to 638 two-way is based on 80,000 visitors per annum. The proposed on-site café is not anticipated to generate any further trips as this is likely to be used by existing visitors to the Watersports facility.

6.1.2 Marina

TRICS has been used to determine the proposed trips which will be associated with the marina, focussing on the final developed area in line with the proposed upgrades. TRICS data can be made available in the final report. To apply this SLR has used the chosen marina sites from the software to calculate the trip rate per berth for each chosen site; the average trip rate per berth based on the chosen sites has then been calculated with these rates multiplied by the 50 no. berths. The results for daily total vehicular trips have been summarised in Table 7.

Table 3: Anticipated Future Marina Vehicular Trips

Arrivals	Departures	Two-Way
147	147	294

Although the marina as existing has 50 berth spaces, these are never at full capacity, and so the anticipated proposed marina vehicular trips assume full capacity of the 50 berths following redevelopment.

The sites that have been used from TRICS to determine the estimated trip generations have been chosen as they share similarities to that of the proposals at Hodson Bay. The chosen sites have been described in the following paragraphs:

Site 1 – Jones Boatyard

This site sits on a 5.04ha area and is located in St. Ives within a rural village location. The site provides 160 berths and 120 car parking spaces with cycle racks to support up to 10 cycles. There is a bus stop within 400m and the site benefits from footways, cycle paths and bus routes.

Site 2 – Ullswear Yacht Club

This is a 100-berth marina which is free standing (outside of any town) in Penrith. The site is set within an area of 2.10ha and benefits from 100 car parking spaces and nearby cycle paths but no local public transport options.

6.1.3 Tourist Accommodation

The future planned tourist accommodation – in the form of glamping pods, eco cabins, lake cabins and treehouses – are expected to house between two and six persons per accommodation unit; these will mostly be in the form of single families arriving in one vehicle per accommodation. With the anticipated 50 cabins and a further 10 glamping pods, this could equate to up to 60 daily trips. Should all tourist accommodation be changed over on the same day, this could total up to 120 daily two-way vehicular movements.

6.1.4 Other Leisure

In relation to the further planned development at the waterfront, the development will also include a beach, children's Play Area, a wild swimming area on the lake – inclusive of kayaks, paddleboards etc – and the promenade. In addition, it is anticipated that there may also be additional temporary food stalls. There are expected to be some trips generated from these uses specifically, and while some will be captured within other calculated trip generations for the site, a worst-case scenario for this 'other leisure' development is estimated to generate 20 daily trips, or 40 two-way movements.

6.2 Future Visitor Numbers – Summary

Based on the above, and accounting for the planned development as per the Preferred Option Report, the estimated future visitor numbers for each planned development has been combined to determine the future vehicular visitor numbers for the whole Hodson Bay area once fully developed; the hotel has also been included. Table 9 summarises and combines the estimated vehicular visitor trips. **These predicted numbers are considered to be a high level worst case prediction, relate to vehicular trips only** and are based on daily activity during peak summer months.

Table 4: Anticipated Future Vehicular Trips at Hodson Bay

Development/ Land Use	Arrivals	Departures	Two-Way
Watersports Facility	319	319	638
Marina	147	147	294
Tourist Accommodation	60	60	120

Development/ Land Use	Arrivals	Departures	Two-Way
Other Leisure	10	10	20
Hodson Bay Hotel	176	176	352
Total	712	712	1,464

6.3 Access Strategy

The access strategy for the Hodson Bay area is for the re-developed site to promote a sustainable and inclusive use of the attractions, **with the internal access road to be primarily for non-motorised vehicle use**. It is the vision to redevelop the Hodson Bay area to be as sustainable and ‘green’ as possible, to enable **a safe environment for non-motorised users, and to create a link at Hodson Bay with the proposed new ‘Mid-Shannon Greenway’**.

Hodson Bay is situated in a relatively rural location, away from any major towns or cities. This makes it ideal as a tourist hotspot (this and the Lough Ree) but does create accessibility issues.

The best option for Hodson Bay, and to support future visitors from the planned development as per the Concept design, is for a transport mobility hub to be provided upon access at a newly acquired parking area located at the entrance to Hodson Bay. This would ultimately enable the existing access road into Hodson Bay to be for primary use by non-motorised modes such as walking and cycling, with smaller vehicles used to transport less abled visitors to their end destination within the site. It is understood not all parking is viable at the proposed ‘hub’, and so in terms of a parking strategy **it is recommended some parking remain within the site with a collection/ drop-off point for those being shuttled from the hub**.

6.4 Transport Mobility Hub Intersecting with the Greenway

Vectos (part of SLR) compiled a ‘Capability Statement on Mobility Hubs’ whereby it describes these as *“a focal point in transport networks, allowing us to seamlessly integrate different modes of transport, multimodal supportive infrastructure, and placemaking strategies to create activity centres in a development or town centre that particularly maximise first and last mile connectivity”*. As mobility hubs are modular and scalable, they are best integrated at Master planning stage and can be highly beneficial for new tourism destinations. Figure 3 provides an example of a mobility hub and what it may include. A central component of the access strategy for Hodson Bay is the provision of a transport mobility hub connecting in with the proposed greenway.

Figure 16: Example Detail of Mobility Hub



The hub, as proposed, will be best situated close to the strategic highway network along the access road and its purpose is to act as a ‘gateway’ to the wider Hodson Bay site, reallocating space from roads to enable a ‘greener’ access route to the individual planned developments and limit the number of motorised vehicles travelling along this road.

The hub has been initially conceptualised within the location on the main access to Hodson Bay shown on the Concept Design. This design can be viewed at Appendix 03 and is shown to provide ample parking to ‘capture’ visitors in their car at this location, with safe walking and cycling routes provided from the hub to the wider site. Based on the anticipated acquirable land space, the current hub design has the potential to accommodate up to 119 total car parking spaces. The parking is shown to surround the central hub which will be pedestrianised and include a café/ rest area and large cycle hire facility to promote this method of travel into the wider site and ensure cycling is optimised.

Within transport planning it is essential to be inclusive, and so the hub concept design includes a shuttle bus collection/ drop-off point for less mobile visitors to utilise in accessing their end destination. It is understood there are quite often large groups, such as school students, coming to the site currently for the Watersports facility; a coach drop-off area has been included within the concept design close to the Watersports facility, with the required coach parking located at the hub.

When approaching detailed design stage, it may be beneficial to provide larger parking bays to facilitate parking for motorhomes, horseboxes/ trailers and other such larger visitor vehicles which may potentially visit the site once fully developed. It may also be prudent to provide a greater number of car parking spaces should the required land be available; this can be considered at more detailed design stage should site acquisition be successful.

6.4.1 Active Travel Hub at Marina Square and Gardens

The Marina Square and Gardens provides a flexible public space at the southern end of the site. The square addresses the marina, providing a space for programmed activity and events while serving as a functional amenity for marina activities. A small Active Travel Hub will also be provided here as a nodal point along the proposed cycle network providing information, repairs and a small kiosk/café.

6.5 Improving Pedestrian and Cycle Access from N61

With the use of the hub, it is anticipated that this will drastically decrease the number of vehicles utilising the access road, meaning a safer environment enabling higher levels of pedestrian and cycle use. Ideally, the existing access road would also benefit from widening to allow for bidirectional traffic with a shared cycle/ footway running adjacent to the carriageway spanning the full length of the internal access road from the N61 to all planned development land uses within Hodson Bay. This would significantly reduce the chance of conflict between road users. It may also be appropriate to include traffic calming measures to ensure that the speeds of all vehicles are kept at a safer level.

Thought should be given to access between each land use and development areas for non-motorised modes of transport, so the user isn't always required to use the carriageway. The Concept Design shows some potential new footpaths/cycle paths which will encircle parts of the Hodson Bay area and provide areas of connectivity between the separate land uses, as well as a proposed boardwalk spanning from the marina/jetty to beyond the watersports facility via the promenade.

6.5.1 Direct Routes to Facilities

The placement of the mobility hub at the 'entrance' to Hodson Bay will serve to capture the car trips and to encourage sustainable travel further into the site.

Visitors will move from the mobility hub into the site via the existing access road, which provides direct links to all Hodson Bay facilities, both existing and proposed. Cross sectionals have been drawn up at two locations along the existing access road to reflect how this link may be laid out for sustainable travel.

Location 1 reflects the most restricted section of road on approach to the Hotel and the Watersports facility, just after the sweeping left-hand bend, which can be viewed at Appendix 07. This reflects the access road in its current layout, with approximately 5.5m of carriageway, 1.5m verge on one side and a 1.5m footway on the other.

Appendix 07 contains the cross-sectional drawing for the internal access road at Location 2 situated closer to the N61. This includes the road at the maximum carriageway width which can accommodate 1m of footway with a further 1m of verge on either side of a 7m wide carriageway.

6.5.2 Circular/ Leisure Routes

As shown on the Concept Design, the proposals are for a nature reserve/ wetlands area which will provide a circular leisure route for both pedestrians and cyclists to enjoy. There are also boardwalks proposed for pedestrian use at the waterfront

Subject to 3rd party access arrangements, the Yew Point peninsula will continue to be of use for pedestrians around its 145 acres. There is also the potential to develop this area further in the future when considering the 'Mid-Shannon Greenway' to allow for further cycle use.

6.6 Outline⁵ Parking Strategy

Central to the proposed visitor experience development strategy and the provision of a new promenade is the development of a workable parking strategy in tandem with linked improvements for other modes of development.

⁵ All parking numbers referred to here are approximate. The outline parking strategy i.e the exact location of newly provided car parking spaces and their location will be refined depending on the extent of sites acquired for further provision

The preferred option in relation to parking and to be 'in keeping' with the ideology of the future planned redevelopment of the Hodson Bay area is for a transport mobility hub to be located at the start of the access road with a further internal car park for use predominantly by disabled visitors and for drop-off/ pick-ups, as well as retained parking for hotel guest and further parking for future lodge development at Yew Point.

6.6.1 Existing Parking

There are approximately 481 no. car parking spaces within the Hodson Bay area which are broken down and summarised within Table 4.

Table 5: Existing Vehicular Parking at Hodson Bay

Location	No. of Spaces	Description
Watersports Facility	117	Situated directly north of the Watersports facility is a car park with approximately 93 no. perpendicular bays and approximately 17 no. on-road parallel parking spaces. Approximately 4 no. bays within the car park are dedicated for disabled use. There are a further 7 no. (approx.) on-road perpendicular bays opposite the Watersports facility main building.
Promenade	59	On-road parking bays with approximately 45 no. perpendicular bays and 14 no. parallel parking spaces.
Hodson Bay Hotel	75	On-site parking in multiple dedicated areas. Approximately 5 no. bays are dedicated for disabled use.
Marina	114	Car park adjacent to the marina/ jetty with approximately 107 perpendicular bays. Approximately 3 no. bays are dedicated to disabled use. Approximately 7 no. are on-road parallel parking spaces.
Golf Club	116	Private car park with 2 no. dedicated disabled spaces.
Total	481	

It is estimated that most of these bays (approximately 287 no.) are of public ownership, and those formal in nature are of the minimum national standard sizing of 2.4m x 4.8m.

The Car Parking Standards are provided in Table 12.1 of the RCDP and are summarised below for the proposed Hodson Bay land uses. According to the standards in the Roscommon County Development Plan, this estimates a total requirement of 402 spaces which is 79 less than the current provision.

Table 6: Car Parking Standards Relevant to Proposed Uses

Land Use	Minimum spaces to be provided	As Indicatively Applied
Watersports Facility (sports hall/ club)	2 per court, 5 per 100m ²	68 (based on 1,356m ²)
Marina	1 space per berth	50
Nature Reserve/ Wetlands (Public open space)	4 spaces per hectare	40 (based on an expected maximum of 10ha)
Holiday Accommodation	1 space per lodge	60
Other Leisure (Public open space)	4 spaces per hectare	8 (based on an expected maximum of 2ha)
Hodson Bay Hotel	1 space per bedroom	176
Total		402

According to the Roscommon County Development Plan (RCDP) 2022-2028, the purpose and application of parking standards are to ensure that during the assessment of development proposals, consideration is given to accommodating vehicles that could be generated by developments proposed in accordance with national and regional policy objectives, in addition to facilitating a modal shift towards more sustainable forms of transport.

It is generally required that residential, commercial, enterprise, and employment developments or otherwise, comply with the parking standards detailed in the table below. However, a reduction in the standard of car parking provision in town centre areas will also be considered along with larger developments **requiring a sustainable mobility plan**. Additionally, when an achievable smarter travel plan can be implemented, a reduction in car parking space requirements may be considered.

A meeting with Roscommon County Council's Roads department has also confirmed that an overall reduction to the number of car parking spaces would not raise significant concerns, however it is anticipated that future planning applications would be required to demonstrate the potential impacts resulting from changes to the parking numbers, linked to the proposed developments and the vehicle numbers to be generated.

Sustainability mobility, as outlined in Section 4.3 to 4.5 above, is therefore central to key aspects of this strategy and in particular:

- The provision of a greenway plug in point within Hodson Bay
- The provision of cycle parking /hubs within the study area
- The improvement of cycle ways between the greenway hub and the core of the study area.

Although a reduction in standard may be appropriate depending on the provision of other modes, it is currently estimated that 150 spaces will remain once the promenade is redeveloped and that approximately 400-450 new spaces will be required (550-600 in total). We have made these assumptions as part of this study however, the approach can be adjusted, refined and agreed upon as part of a detailed parking strategy.

This parking strategy should be progressed in tandem with sourcing additional areas for replacement car parking. Although, multi-storey car parking is not considered appropriate at this location, depending on the extent of additional area sourced and its location, this could be considered as part of the finalised parking strategy. Based

on the size and scale of the existing hotel, a maximum of 4 stories would be considered appropriate adjacent to the hotel.

At the heart of this strategy is to embrace the tourism and visitor experience opportunity provided by direct access to the lakeshore and in order to achieve this car parking must be reconfigured across the site. The additional areas where landownership must be established and for which land acquisition must be investigated include:

1. Watersports Car Park - New Car Parking and to accommodate coach drop-off for the Watersports facility as well as the shuttle bus
2. At access Road to Yew Point
3. At Entrance to Hodson Bay

6.6.2 Phased Car Parking Strategy

Together with site acquisition and stakeholder engagement and collaboration, phasing of car parking redevelopment across the site will secure delivery of project proposals while minimising disruption across the site. (Map to be updated with sites).

Phasing	Parking Areas at Hodson Bay	No. of spaces
Baseline	Existing (2022) Currently available / Required as per Standards	481/ 402
Phase 1	Site at access to Yew point (2024-26)	100
Phase 2	Watersports Parking Area (2024-26)	57
Phase 3	Proposed Rationalisation without new areas (public realm work to commence in phases)	166
Total provision of parking after delivery of Phases 1-3		323
Deficit (based on standards)		79
Phase 4	Site at Entrance to Hodson Bay 2028	119
Total after delivery of Phases 1-4		442
Surplus (in the context of development plan standards)		40

6.6.3 Indicative Parking Provision at New Locations

Existing / Proposed Parking Location			Estimated capacity	Landownership	Action
Short to Medium Term Opportunity					
Marina Car Parking	Rationalised Car Parking		50	RCC	Design in consultation with WI and fishing community
Watersports Car Park	New Car Parking and to accommodate coach drop off for the Watersports facility as well as the shuttle bus		57	RCC	Consider opportunities to extend this site
	Option B Multi-storey (see below)				
Wild Beach Car Parking	Rationalised Car Parking		50	RCC	
Golf Club	Retained Space		116		Negotiate Overspill
			223		
Medium Term Opportunity					
At access Road to Yew Point	Newly Proposed		100	GC	Acquire Site.
At Entrance to Hodson Bay	Newly Proposed		119	3 rd Party	Acquire Site.
			219		
Longer Term Additional Parking Opportunity					
Nature Reserve	Newly Proposed – to rear of golf club	Q	130	3 rd Party	To be incorporated as part of a future 3 rd party application

Existing / Proposed Parking Location		Estimated capacity	Landownership	Action
Total based on delivery of options over short, medium and long term		572		

6.6.4 Multi-Storey Parking Option

A multi-storey car park may be one option to include when considering the parking required to support the development. Multi-storey car parks can be designed to fit the available space and to fit in with the surrounding environment, enabling a greater number of spaces to be provided. A review of the design concept and the possible car parking locations confirms that there are options for the placement of a multi-storey car park; the area close to the watersports facility is an option along with the parking area at the northern end of the site. The design of a multi-storey car park includes the access and exit ramps along with stairs and/or a lift, which limit the floor area available for parking spaces; multiple levels can be provided to deliver the number of spaces required.

Given that the extent of additional area available for improving car parking is unknown, the requirement for a multi-storey car park should form part of the options appraisal process. Based on the space available in the area adjacent to the watersport centre and a preliminary assessment of this location, the following spaces could be provided:

- Ground Floor (35-40 car park spaces (including 27 disabled car park spaces)
- 35 - 40 space on the first floor and all levels above

Assuming a development no higher than four stories (considered a maximum height in terms of visual impact) would result in the provision of between 145 -160 spaces. This option should therefore be considered in tandem with provision at other locations and/or a reduction in the number of spaces being lost to the proposed promenade.

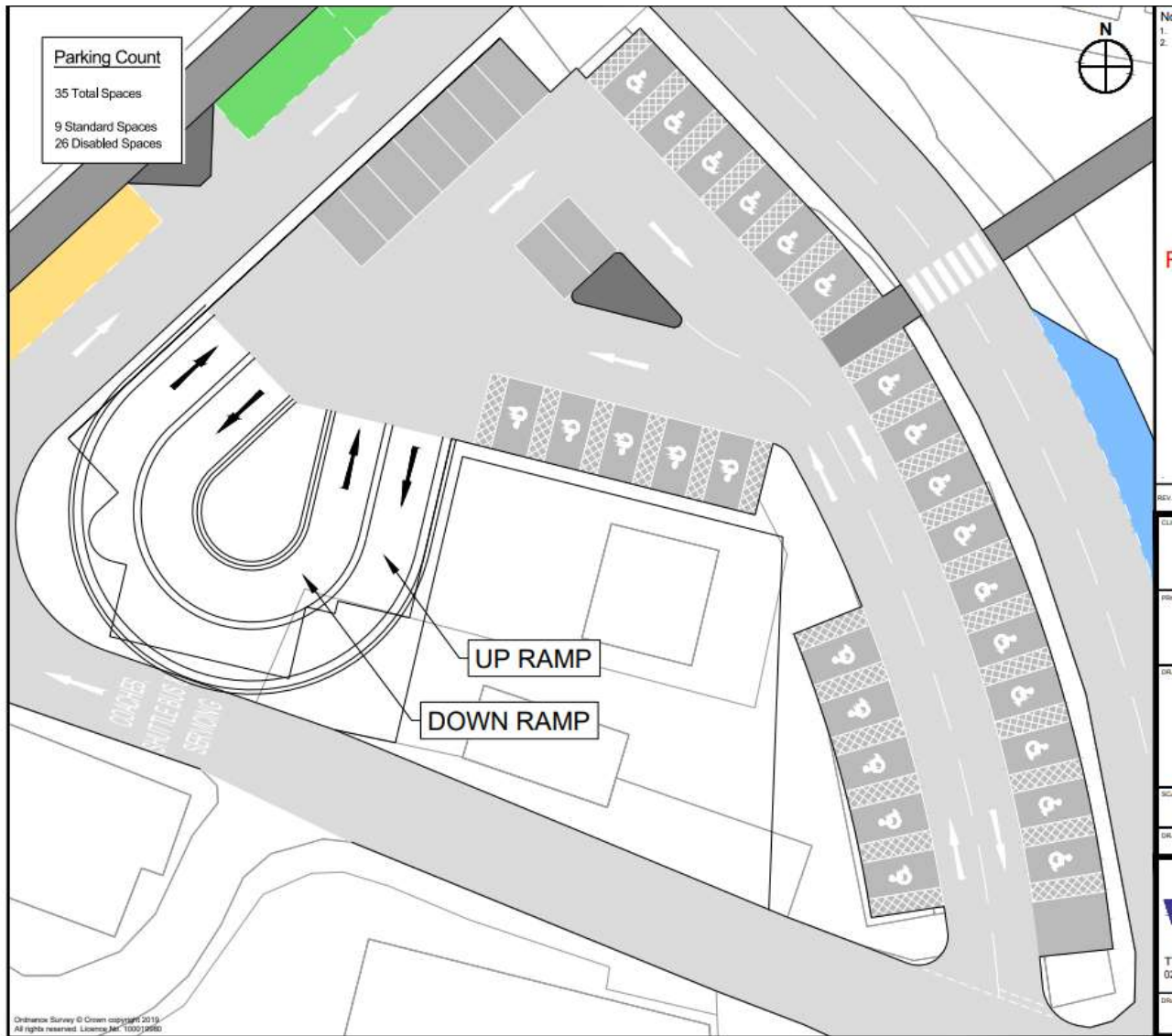


Figure 17 Indicative Layout for Multi-storey Car Park

6.7 Conclusions

The redevelopment of the Hodson Bay area is to result in a significantly improved experience for all residents and visitors, with a wider range of facilities, a greater choice of activities and the opportunity to stay for a longer holiday experience. Such improvements are very likely to result in an increase to visitor numbers beyond the season peak currently experienced and without the provision of the mobility hub or additional parking there is a risk that the site would become less accessible.

Linking the proposed upcoming new 'Mid-Shannon Greenway' to the Hodson Bay site is likely to require detailed consideration of potential route locations and options for links. To ensure the route of the Greenway is optimised and that it serves the Hodson Bay area in the most effective way, liaison with the Greenway Team should continue as proposals are developed and a plug-in hub should be secured.

The existing bus stop would also be better removed once the hub is created, and upon further development of the car park at the Watersports facility as these both are proposed to accommodate coach/ bus parking. Taking the buses off the access road where able will reduce adverse risk to road safety.

At this stage the proposed future visitor numbers – in predicted vehicular trips – have been estimated based on worst case scenario assumptions and predictions; while they are based on current available information, they are not considered to be accurate predictions. The data should be revisited and more accurate, individual calculations tailored for each land use should be prepared, based on more detailed designs. This will ensure a greater understanding of the maximum visitor numbers and in turn, allow for the accurate prediction of multi-modal trips.

A phasing plan would be beneficial for the proposed developments and for the delivery of the parking strategy. Once more detailed designs have been further investigated for new car parking areas, these should be incorporated within a detailed planning application for each of the elements to create a more tailored approach.

6.7.1 Recommendations for next steps

1. Progress site acquisition and negotiation with key stakeholders regarding new parking sites and finalise parking strategy and public realm design focusing on the following newly proposed parking area.
 - Area at Watersports Facility
 - Area at entrance to Yew Point and
 - Area at entrance to Hodson Bay to connect with the greenway (confirm with greenway team the likely location of plug in)
2. Should any of the identified additional areas not come forward for development, investigate the potential to for additional areas, multi-storey parking and retention of more spaces within existing locations.
3. Agree a phasing plan which secures delivery of new parking areas in advance of proposed public realm works.
4. Improve connection to the Greenway for use by pedestrians and cyclists and prepared detailed designs once plug location has been agreed. Continue to liaise with the greenway team.

7.0 Economic and market analysis

7.1 Visitor Trends ⁶

The Shannon is the core tourism and recreational asset in Ireland's Hidden Heartlands. The implementation of the Tourism Masterplan for the Shannon will present an opportunity to drive catalytic change in the levels of tourism in the region.

Recent tourism statistics are significantly impacted by worldwide travel restrictions associated with the COVID-19 pandemic. Prior to that, the tourism sector in Ireland held a strong position as one of Ireland's key industries. 2019 was the best year to date for Irish tourism, attracting just over 9.6 million international visitors. Tables 6 and 7 below show the 5-year trends in visitor numbers (both overseas and domestic) and revenues generated (2014-2018), reflecting the positive upward trend in tourism numbers.

Table 7 Tourism Numbers in Ireland 2015-2019

Numbers of Overseas Tourists (000s)	2015	2016	2017	2018	2019	% change 2019 vs 2018
Overseas	8,036	8,742	9,023	9,609	9,674	0.7%
Total ForEx Earnings (€m)	5,963.5	6,539.9	6,959.2	7,383.9	7,386.0	-

⁶ Key Tourism Facts 2019 (Failte Ireland, 2021)

Table 8 Domestic Tourism in Ireland

Numbers of Domestic Tourists (000s)	2015	2016	2017	2018	2019	% change 2019 vs 2018
Domestic Tourists	9,125	9,359	9,626	10,919	11,621	6.4%
Revenue (€m)	1,725.3	1,797.7	1,879.1	2,006.0	2,146.6	7.0%

7.1.1 Shannon - International Visitors

Summary Profile (2019)

- 449,000 overseas tourists visited Ireland's Hidden Heartlands, generating €178m, spending on average €397 per capita in the region and staying on average 6.1 nights.
- One third of tourists to Ireland's Hidden Heartlands are overseas residents, mainly coming from Britain and Mainland Europe.
- 50% of the region's tourists are on holiday and a further 40% are visiting friends and relatives (VFR) contributing to an average stay of 6.1 nights.
- 57% of holidaymaker nights are spent in paid serviced accommodation (hotels, guesthouses and B&Bs)
- 67% of international visitors typically visit the region between June and September
- 56% of visitors are over 45 years, travel either in couples or family groups and are more likely to use a car (68%)
- A high proportion of overseas holidaymakers to Irish Hidden Heartlands have spent at least one night in other regions, 65% on the Wild Atlantic Way, 61% in Dublin and 42% in Ireland's Ancient East, pointing to a tendency for car touring.

What motivates visitors from our key international markets

In general, relaxation, variety of attractions and things to do, quality time with loved ones and value for money were influential when choosing where to go on a short break or holiday.

British - Due to proximity, British holidaymakers may feel like they know what Ireland has to offer and that it might be similar to what is available closer to home.

Germany - Ireland's dramatic coastal scenery is a unique selling point (USP) to the German market. Germans are more likely to consume the landscape in an active way while soaking up the atmosphere of the authentic local culture is also important.

France - French holidaymakers enjoy getting off the beaten track, away from perceived tourist hotspots as a means to explore unspoiled landscapes. French visitors are attracted to authenticity and local experiences.

7.1.2 Shannon - Domestic Visitors

The strategy incorporates a new domestic market segmentation that will focus on 7/8 motivations as opposed to one or two demographics.

Summary Profile (2019)

- 784,000 domestic visitors visited the region, generating €129m in revenue, spending on average €164 per capita in the region and staying on average 2.3. nights.
- 120,000 visitors from Northern Ireland visited the region, generating €34m in revenue, spending on average €280 per capita in the region and staying on average 2.6 nights.

Understanding our Domestic Visitors

The region has strong potential for all and is not significantly skewed towards any one segment. At the same time, younger unconstrained adults make up a significant portion of the intent metric which speaks to the opportunity to build penetration.

Ireland's Hidden Heartlands is ideally placed to **include a focus on the shoulder season** - with intent for these months standing out somewhat from the other regions (in particular, September). Given its location, it is ideally placed to encourage tourists to spend time in the region beyond the summer. On average tourists spend 2 –3 nights in the region and predominantly engage in outdoor activities and touring around by car. Families over index in a variety of these types of activities. With outdoor activities being high on the agenda as part of living with Covid, the Hidden Heartlands is ideally suited to meet this demand.

Domestically, Ireland's Hidden Heartlands will be positioned to focus on **three core motivations of bonding with family and friends, taking time out and exploring**, and thus a combination of families and unconstrained adults. The core segments are interested in getting active in nature and getting off the beaten track to uncover the hidden heart of Ireland.

7.2 Market Segmentation

The two main international target segments for the Shannon in the context of Ireland's Hidden Heartlands are:

- **Culturally Curious** are independent "active sightseers", seeking 'freedom' through authentic and unusual experiences, exploring, connecting with nature off the beaten track, and prepared to pay for insightful guide. They love to walk, cycle or boat to explore a new place. They are 40+ in age and will usually travel in a couple or as an individual, but rarely in a family group.
- **Great Escapers** are looking for time out to recharge their batteries and reconnect with each other. They want to be in nature and soak up beauty but will also visit a castle or landmark. They enjoy being off the beaten track to explore the elements – stars, water etc. and will take part in strenuous but not extreme activities; appreciate peace and quiet, but also enjoy the 'wow factor' without too much effort. They are usually couples in their 30s, may have young children, or couples in their 40s-50s without children. Anglers as 'great escapers' may have specialist requirements.

Fáilte Ireland has outlined two segments of the domestic market that should be considered:

- **Connected Families** make up 23% of the domestic tourism market, comprising relatively young families, parents in their 30s-40s and children under 10. Holidays offer an opportunity to spend quality time together, creating lasting memories. They plan ahead to find the best places to stay, hidden gems and activities that can be shared. Connected Families book 3-6 months ahead, online. Typical family breaks are for 4-7 days, staying in hotels or self-catering houses.
- **Indulgent Romantics** make up 14% of the domestic market and are aged between 45 and 64. They like going to different places and enjoy shopping, pampering and great food. They take spontaneous weekend breaks in romantic hubs, with good deals for a particularly nice hotel, restaurant, food and wine, at a certain standard of comfort. Indulgent Romantics book online; but may book at short notice with the right offer. Their breaks are short, relying on hotel and booking sites, but they are not active users of social media.

7.3 Future Consumer Trends – July 2021

The implications overview refers to many upcoming trends have found their roots throughout the course of the Covid-19 pandemic, as consumers have been forced to slow down, reflect, and re-evaluate their habits. The year 2020 has shaped and impacted consumer trends and has also seen an increase in social justice movements.

Over the past 18 months, consumers across the globe have been forced to adapt and re-adapt as restrictions have changed and continue to do so.

The big question for the long-term is which trends, passions, and habits will stick around post-Covid. It seems that, in general, more transactional interactions, including not only online shopping, but actions such as remote check-ins/reservations, will remain more distant and online. However, relations that revolve around human interactions will go back to the way they were before. We still want to meet people in person, and while video calls or streaming parties may supplement this, they will not replace our craving for experiences with people.

Future Consumer Trends	Implications	Relevance
Health and Wellbeing - Driven to the fore by Covid-19, physical & mental health and wellbeing has become a key trend	<ul style="list-style-type: none"> There will be an opportunity to grow the area of Wellness Tourism- travel associated with the pursuit of maintaining or enhancing one's personal wellbeing. There is a chance for brands to adapt this holistic approach, by catering for self-care trips, yoga retreats, and offerings focused on relaxation and stress relief. Physical fitness offerings will also be appealing to this group, with activities such as walking, hiking, canoeing or kayaking offering benefits for physical wellbeing, along with a chance to mentally disconnect with technology, and reconnect with nature. 	Wellness and physical fitness offerings
Flexibility in the Workplace - flexibility in the workplace includes both time and location	<ul style="list-style-type: none"> Working from home has made the idea of living in more rural locations such as smaller towns or villages more appealing to many. As many begin to re-locate to these areas, there will be an opportunity for local providers to build positive associations as newcomers seek to explore their new surroundings. it may see consumers take advantage of the flexibility gained from working remotely, and taking longer holidays as a result, providing them with a change of scenery, without the requirement of taking as much annual leave. An attractive spot with suitable amenities (e.g. desk/chair/strong wifi) will become a must-have when choosing where to stay when extending trips and creating the experience of 'Work station'. Accommodation offerings will need to be equipped to help support and meet consumer demands in this area. Providers could adapt space into co-working/flexible offices for remote workers, while also providing an opportunity for these suppliers to link in food and drinks options for remote workers. 	<p>Increase in market opportunity locally.</p> <p>Remote working hubs at</p>
Sustainability	<ul style="list-style-type: none"> There is an opportunity for Eco tourism to grow and expand. 	Hodson Bay Brand – Yew Point

Future Consumer Trends	Implications	Relevance
	<ul style="list-style-type: none"> Businesses, including tourism and hospitality providers, to be transparent, should communicate their efforts in this area with consumers. Food providers can build positive associations by creating seasonal menus that use local produce, eliminating single use plastic, using more green energy and generally seeking to minimise their environmental impact. It will be vital that businesses or organisations do not engage in greenwashing. 	
Value	<ul style="list-style-type: none"> This shift to a more minimalist consumption lifestyle may see consumers begin to identify by their experiences instead of material possessions. As value and sustainability continues to be at the forefront of consumers' minds, the Sharing Economy will be in a good position to continue to grow. 	Experience led development
Convenience – Longing for the Old	<ul style="list-style-type: none"> Businesses will need to find the right balance between digital technology and human interactions, to cater for both the older cohorts, and the younger age groups, and their differences in preference. In general, businesses will need to consider the contactless consumer journeys that individuals take with them, along with the more traditional consumer journeys. In particular, there is an opportunity for hotels to continue to innovate in their digital technology interactions, now that consumers are more receptive to new technologies. 	Balance between digital technology and human interactions
Outdoors	<ul style="list-style-type: none"> The taste for the outdoors is something that is likely to grow in the next 5+ years, both in terms of activities and social and dining experiences. To take advantage of this, the sector will need to continue to invest in optimising outdoor areas. This may see an uptake on outdoor alternatives to indoor activities going forward. E.g. Outdoor cinemas, open air events such as concerts or fairs, outdoor exercise classes, the use of outdoor pods or domes, and an uptake in the desire for glamping experiences are all areas to be explored, particularly for the leisure and entertainment industry. Restaurants and hotels will need to review their outdoor offerings taking the local climate into account, and seek to set their outdoor spaces up in a way that consumers can eat outside throughout the seasons. Menu consideration will also be key, taking into account the types of food suited to outdoors, consumers tastes for outdoor dining, and the distance from the kitchens. On a strategic level, there is an opportunity to completely reimagine spaces and places, not merely on an individual 	<p>Optimise outdoor areas overlooking the water.</p> <p>Provide space to stage outdoor offerings</p>

Future Consumer Trends	Implications	Relevance
	business level, but through looking at the city-scape itself, and how businesses can be brought together in a more permanent way	
Self-Expression and Identity	<ul style="list-style-type: none"> There is an opportunity for brands to build trust and positive associations with their consumers, by creating initiatives that seek to support certain causes, supporting the local communities, or doing their part to take a stance on larger, more complex issues. Activism will continue to rise with people rooting their identity in their stances regarding various social and political topics, which may lead to an uptake of consumers seeking out more transformative travel experiences as a holiday option, as a means to express their identity. 	Initiatives that seek to support certain causes – environmental / wildlife protection
Technology	<ul style="list-style-type: none"> Many of the ways consumers now utilise technology as a result of Covid-19 will remain in place, such as ordering groceries and shopping online. However, consumers will still seek the belonging and connection of human contact, as the emotional connection is something that is non-replaceable. Providing novel experiences with technology can make a business stand out from the crowd. This provides exciting opportunities for the tourism and entertainment industries in particular. Introducing augmented or virtual reality into sectors such as museums, galleries, historic houses and tourist or heritage centres can provide a novel, immersive experience that visually contextualises what the visitor is seeing, while working to differentiate the business 	Novel experiences with technology

7.4 Regional Performance ⁷

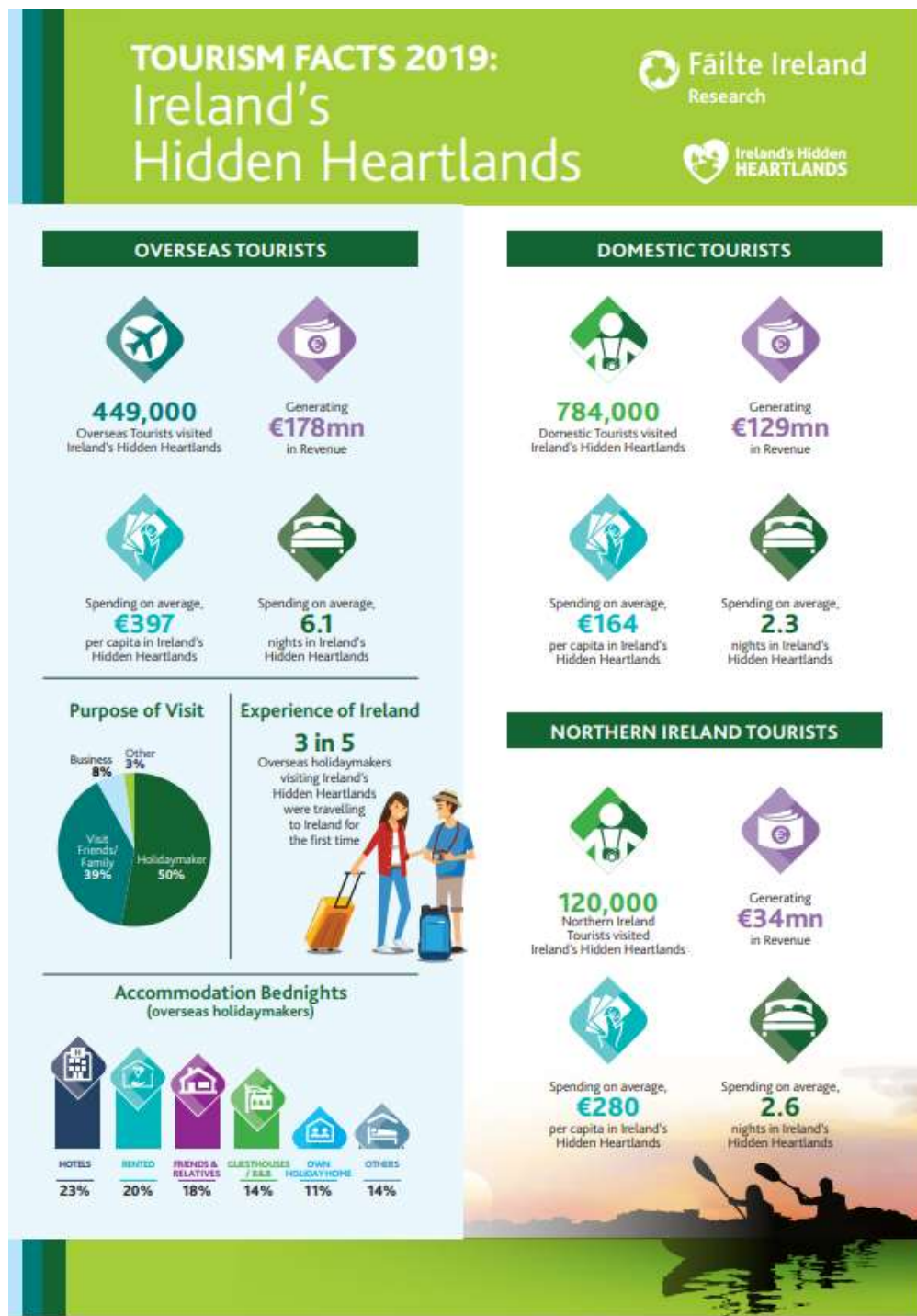
Roscommon is part of the West region in relation to tourism data collection purposes. Table 2 shows tourism data from 2019.

Table 9 Tourism Numbers and Revenue for West Region

West		
Market	Numbers (000's)	Revenue (€m)

⁷ [Tourism Facts 2019 Final March 2021 \(failteireland.ie\)](https://failteireland.ie)

West		
Britain	342	112
Mainland Europe	812	238
North America	647	264
Other Areas	142	39
All Overseas	1,943	653
Northern Ireland	113	48
Domestic	1,848	370



7.5 Local Insights

County Roscommon has just 2%⁸ of the national share of tourists in Ireland and through the strategic aims and objectives of Ireland's Hidden Heartlands it is the intention of to increase this figure by 4% per annum.

⁸ Failte Ireland, Key Fact 2019

The key attractions that attract the largest numbers of visitors annually in Roscommon are:

- Lough Key Forest & Activity Park (200,000 in 2015)
- Watersports at Hodson Bay (40,000 in 2016 and 80,000 in 2020)
- Strokestown Park House & National Famine Museum (50,000 in 2019)
- Rathcroghan Visitor Centre (20,000 in 2019)
- King House, Boyle (13,000 in 2019)
- Boyle Abbey (7500 in 2019)
- Roscommon Castle (figures not available)
- Athlone Castle (figures not available)
- Derryglad Folk Museum (figures not available)
- Arigna Mining Experience (figures tbc)
- Glendeer Pet farm (figures tbc)

County Roscommon is located at the geographic centre of Ireland and is strategically located to serve a wide hinterland with a **significant regional population of 300,000 people⁹** within a 60k radius.

Roscommon is a county of small towns and villages with a strong community ethos and the third most rural county in Ireland with 74% of the population living in rural areas. As a largely rural county, Roscommon possesses a rich heritage and a range of natural, cultural and environmental resources that can be appreciated, developed and promoted for economic and community benefit. Roscommon has a host of offerings that will appeal to visitors including a variety of natural, cultural and heritage assets that provide potential for enhanced and unique visitor experience

7.6 Future Growth in Visitor Numbers

A key issue for Ireland's Hidden Heartlands is the low visitor numbers and short dwell times however there are projected future Visitor Numbers of c. 1.19 million to Ireland's Hidden Heartlands (to 2030) as set out in the Shannon Masterplan which equates to 304,000 additional visitors to the region.

A key target will be to 'capture' visitors on the east-west Dublin-West Coast axis by offering 'reasons to stop and stay' and by creating vibrant, world class, compelling towns, villages, attractions and activities all along the Shannon.

7.7 Taking Hodson Bay to market

How Hodson Bay is taken to market is key to its success. Planning for visitor engagement should begin at the very least 18 months in advance of the opening and should be reflective of wider tourism visitor market behaviours, visitor segment behaviours and the growing domestic market, with an additional focus on the youth and education groups.

7.8 Value Proposition

Hodson Bay's wider compelling proposition is that it offers the only outdoor water experience, marina, walkways and natural environment experience within the visitor catchment. This core immersive experience offer is complemented by its easy access to Athlone, its position within the Shannon masterplan catchment area, its natural beauty and heritage and its invitation to increase dwell time and explore the hidden gems of Yew Point and the wider area.

⁹ <http://www.roscommoncoco.ie/en/Services/Tourism/Tourism-Strategy-/Roscommon-Tourism-Strategy-2017-2022.pdf>

The Watersports Facility and café make the most of its spectacular location with a clear view of the bay. An incorporated events area will host a programme of outdoor activities and events that will animate the location in shoulder and high season, offering additional experiences that will appeal to individuals, couples and families.

Hodson Bay is an attractive location with opportunities to create packages with the local accommodation provider, short break holiday companies and travel operators across the globe. Through its celebration of the natural environment, Hodson Bay will complement the strategic objectives of Ireland's Hidden Heartlands, its affordable price point also makes it an accessible option for local, domestic and overseas visitors.

Research demonstrated that the target overseas visitor market (US, Germany and France), give consideration to beautiful unspoilt scenery when considering their holiday destination. The growing domestic market is site hiking, heritage, national parks are in their top three activities of choice. Hodson Bay delivers on each.

7.9 Marketing Strategy

The Hodson Bay marketing aims, and objectives can be summarised as follows:

- **Specific** - to establish Hodson Bay as a **leading outdoor water park and natural heritage destination** in Ireland. Working in partnership with the Council, Failte Ireland and Waterways Ireland and through targeted marketing activity fill the gap for such an offer across Ireland's Hidden Heartlands, appealing to the developing domestic market and the mature market of visitors from the US, Germany, France, and GB.
- **Measurable:** Increase footfall and boat mooring at Hodson Bay along with an increase in bookings of the Watersports Facility experience establishing an average occupancy of 80% during high season within three years. Set targets to grow visitors a month on month with introductory offers, loyalty cards and a programme of events, whilst continually monitoring progress.
- **Achievable:** Working in partnership with local partners such as Hodson Bay Hotel and the Golf Club, industry bodies and transport providers, deliver coordinated marketing campaigns that embrace the consumer behaviour of our visitors. Technology based campaigns will be supported by print and outdoor advert activity.
- **Realistic:** Given there is no similar provision in the area, we are confident we can achieve our footfall and occupancy ambitions. We have explored the behaviours of potential target markets of the Culturally Curious and Social Energisers from GB, Germany, France and the US to establish what matters to them and we have matched our ambition with their needs. An area of such natural beauty will help engage the local community, grow the domestic market, offer events that will encourage gathering, learning (eco-systems, the natural environment workshops) and will celebrate the distinct character of our location.
- **Time bound activity**
 - 18 months from opening: Brand development – raise awareness in the market - Preparation of materials, website, digital platforms.
 - 1 year from opening: Advanced bookings and awareness raising to spike interest and grow market share to gain media buy-in and support.
 - Yr. 1 Opening -special offers, establish the destination as a high quality offer from the word go. Build a profile of positive online reviews.
 - Yr. 2 Build on positive reviews through an influencer programme driving footfall and increase bookings
 - Yr. 3 Through on-going monitoring and evaluation of our activity and market trends, realise our occupancy ambitions

7.10 Key Consumer Trends

According to the most recent Tourism Ireland SOAR (Situation & Outlook Analysis Report) published in June 2022, the immediate key market trends that could impact on Hodson Bay performing as a key attraction include:

- Three in five anticipate European travel this year. Around one-fifth expect their next European trip to happen by June 2022, with a further one-third expecting to travel next between July and December of this year.
- Half of those expecting to travel in 2022 believe their next trip will be their main holiday. The remaining half say it won't be their main holiday or are unsure, which perhaps signals their intention for more than one trip this year. There is opportunity for more breaks in the year, particularly among French and US outbound holidaymakers, who say they'll take more short breaks in the remainder of 2022 than they did pre-Covid.
- COVID-19 remains an influential factor for almost half of outbound holidaymakers; however, the rising cost of living is now of more concern for outbound holidaymakers from France and Great Britain.
- The Ukraine conflict is of particular concern for Americans, most likely due to a halo effect on Europe as a whole.
- The desire to travel is still strong and holidaymakers are keen to make up for lost time.
- Value for money will be an important driver for travel as the year progresses.

A key consumer trend that shows no sign of slowing down its impact on tourism, is **the use of technology to pre verify an experience, and to share thoughts/emotions post experience.**

Market research shows that consumers are increasingly concerned with **ethical and sustainable tourism**, keen to reduce their negative impact on places they visit. Demand for more environmentally friendly behaviours is influencing booking behaviours. The 'slow' movement and more consideration of the environment have reemphasised the journey to a place, it has become part of the experience. With the planned remote parking and approach to Hodson bay on foot or bike via the promenade, the destination is delivering on the continued and growing trend for sustainable experiences in areas of outstanding beauty.

According to Booking.com, 54% of global travellers want to play a part in reducing 'over-tourism' and just over half (51%) are motivated by opportunities to swap popular destinations for lesser known but similar alternatives. This provides a wonderful opportunity to encourage consumers to **swap city destinations for this newly emerging more rural unspoilt experience.**

In addition, the increase in visitors access to several travel and holiday options and deals from the comfort of their own homes via the smart phone, is reflected in a **steady increase in reservations being made online** (currently 57% of all reservations in the travel sector are made online). Mobile apps are now a key part of future marketing activity, as important as websites. Bespoke apps can facilitate bookings, be a platform for promotional messages and can be responsive and specific to the individual. Personalisation is increasingly being used to target visitors. Through pop up ads on social media and ads related to consumer search behaviours we can ensure information about the Hodson Bay experience is tailored to personal preferences.

As the use of immersive technologies increases so too does the ability to use virtual reality technology to digitally transport the traveller and potential visitor straight to the virtual surroundings of the Hodson Bay area. Through a bespoke designed virtual tour of the Marina, Watersports Facility, Yew Point and surrounding area, potential visitors can immerse themselves and find out more about the location, providing the opportunity to build excitement, tap into emotions and influence booking behaviours.

Brand 'Hodson Bay' will need to **continually refresh online content** to attract Social Energisers who are most likely to pre book. Last minute visits can be secured by using technology to target potential visitors when close by, with messaging that engages but also reassures them of minimal risk of a bad experience. Ensuring local partners, and accommodation and transport providers are aware of the unique offer of Hodson Bay will help

harness the word-of-mouth recommendation that will appeal to the Culturally Curious consumer who continues to be more likely to book an attract whilst in destination.

Whilst the majority of visitors to Ireland still book via carriers and accommodation providers, they plan their holidays mainly via the internet. Approximately half of online booking operations are mobile. The design of venue specific, smart apps can not only facilitate booking and reservation procedures, but they can also be used to host promotional messages and react to behaviours as a part of a wider marketing strategy.

Visitors are seeking experiences and will share them on social media, encouraging self-generated content with the use of hashtags, Instagram takeovers and opportunities to upload and share images is key. In addition, collaborating with influencers to promote Hodson Bay to multiple groups and individuals who may otherwise be out of reach and who may be cynical of traditional advertising activity will be vital. Planned social media activity will generate engagement through posts competitions and fun polls which will be supported by paid for display advertising and sponsored posts. Targeting should be based on visitor's interests, location, gender, places they have previously visited and browsing history.

A dedicated Hodson Bay website will be an effective tool in helping to market Hodson Bay to target markets who may be researching holiday options, helping convert them to actual visitors. It is important such a tool is regularly updated with special offers including the cross-selling of other nearby attractions and fresh imagery of the experiences on offer.

Engaging content, quality images and footage should show off the distinct offer at Hodson Bay and its stunning location. Promotional collateral will detail the accessible location (in the Hidden Heartlands), the nearby attractions, accommodation providers etc. not to mention our **proximity to Athlone, Galway, Dublin**, and the north. The booking system will help keep the consumer database up to date, enabling the sharing of information and incentives, sending communications and correspondence with visitors. Sign-up forms on the Hodson Bay website and social media pages will help capture vital contact information. Regular, image led and concise ezines to visitors will help us increase reach, educate audiences, and increase engagement opportunities.

In addition to making use of technology the employment of more traditional marketing methods in domestic, national and international crafted campaigns. These will likely incorporate TV and cinema advertising, outdoor media campaigns, print advertising (newspapers, travel publications) and radio. Activity should be timed to correspond with times when specific markets are most likely to plan a trip and should also respond to behaviours identified in industry research with edited messaging to reinforce wider industry messages specific to target markets.

Target markets include US, GB, Germany, France, and the increasingly important domestic market should be a priority with a keen focus is on behaviours, motivations, and trends. The priority market segment for both international and domestic sales is the Culturally Curious (with a desire to learn and explore history, culture, and architecture). Given the nature of the offer Hodson Bay marketing can also target Social Energisers who like to meet other tourists and locals and have fun experiences. Shared behaviours and those specific to each segment and country vary; Social Energisers from GB are interested in partying and activities/places with a wow factor, those from the US are interested in new experiences and having a fun holiday somewhere different. Culturally Curious visitors from GB, Germany and France are interested in meeting the locals, going off the beaten track, exploring places and broadening their mind. The US Culturally Curious holidaymaker is interested in connecting with nature and having unique cultural experiences. All are at ease with travelling independently or with a companion. It is anticipated that Hodson Bay will appeal to a broad market including families, young couples and groups.

The German visitor market is seeking easier pathways to purchase and compelling reasons to visit Ireland, such as the connection to stunning landscapes and to discover new heritage stories. By **working in partnership with operators and industry providers**, Hodson Bay can forge a new visitor product that can engage this market. 2.9million visitors from mainland Europe took trips to regions as part of an 'out of city' experience, a trend Hodson Bay can fully exploit.

The Culturally Curious and Social Energisers are influenced by family and friends, and they visit during high and low season. As the domestic and visitor markets continue to grow, so too can additional marketing activity and offers tailored to their need such as family tickets and partnerships with accommodation providers for short overnight packages.

7.11 Engaging Stakeholders

Whilst it is clear that **the largest market for Hodson is likely the local and domestic markets**, as its reputation of being a high quality and unique destination grows, it should increasingly hold appeal for overseas markets. Packages and marketing activity targeting overseas visitors is most beneficial when it is reflective and influenced by industry research and tailored to the identified stakeholders changing needs. **Details of the Hodson Bay offer should be shared with industry leaders** including Fáilte Ireland and Tourism Northern Ireland for inclusion in their collateral (such as websites, brochures social media platforms) making use of their existing audiences.

Participation in industry opportunities at international events (e.g. World Travel Market, sales missions, roadshows and FAM trips), participation in partnership programmes and engaging fully in Ireland's Hidden Heartlands brand, will drive continued growth and encourage visitors. Whether domestic or international, tailored marketing, and ensuring information is accessible and informative will provide a meaningful call to action.

Relationships with the travel trade, online operators, the travel media, air, and sea carriers will play a vital role in ensuring on-going success. The use of FAM trips and learning journeys, with a special industry only testing period before opening, will provide excellent promotional opportunities. Creating brand partnerships will facilitate reach to a wider network of visitors and by association, help position Hodson Bay as a quality, value for money destination option.

On-going training evaluation of marketing and sales activity and an innovative approach across contextual drivers such as new technologies and the changing behaviours of visitors will play a vital part in Hodson Bay fully realising its economic growth potential.

7.12 Sales Strategy

Having analysed the market and competitors to establish price point and the experience offer, indicative targets and activity has been designed to position Hodson Bay with confidence in the marketplace. As a re-branded and reimaged destination attraction, Hodson Bay offers an outstanding experience, a variety of activities and value for money.

Sales tactics are designed to maximise sales turnover, this is achieved by raising awareness, creating calls to action, and converting potential visitors to actual visitors. Each potential income stream requires a dedicated marketing plan and a set of associated sales targets. The overarching marketing strategy should be designed within a budget that is between 7.5% and 10% of projected income in the first year of sales. Investment in a dedicated ticketing system with built-in customer relationship management tools will enable data and visitors' analytics to be gathered and analysed, in turn informing future marketing and sales activity.

7.12.1 Creating an Identity

A brand is about perception. It is what people think you are, not what you say you are. It helps define what is unique and special about a company, a product, event, or a place. It is a way of communicating with others, helping to convey the type of product or experience that you offer. A specifically designed Hodson Bay brand identity will help this destination and experience offer achieve stand out from the competition and position it, so it becomes a recognisable and familiar option to potential and returning visitors. The language and tone used in all promotional materials influence a brand identity, as do the key messages and positioning statements which can be used to sell specific seasonal messages and activities or to influence reputation. A logo (marque or graphic

device) is only part of the wider brand identity development. Colour, tone, imagery, and actions are all contributors to brand identity and should be given due consideration when preparing to go to market

8.0 Services and Infrastructure

8.1 Waste water

Hodson Bay is described as a settlement that is serviced by public sewerage and have a capacity to facilitate a degree of residential demand however the area at Yew Point is currently unserved.

Existing waste water treatment arrangements for Hodson Bay consist of UWW providing Secondary Treatment, licensed under D0377-01. The capacity of this system is 3,000 PE with headroom of 2,644 PE.

Hodson Bay has an existing population of 613* with adequate capacity for anticipated growth over the next County Development Plan period.

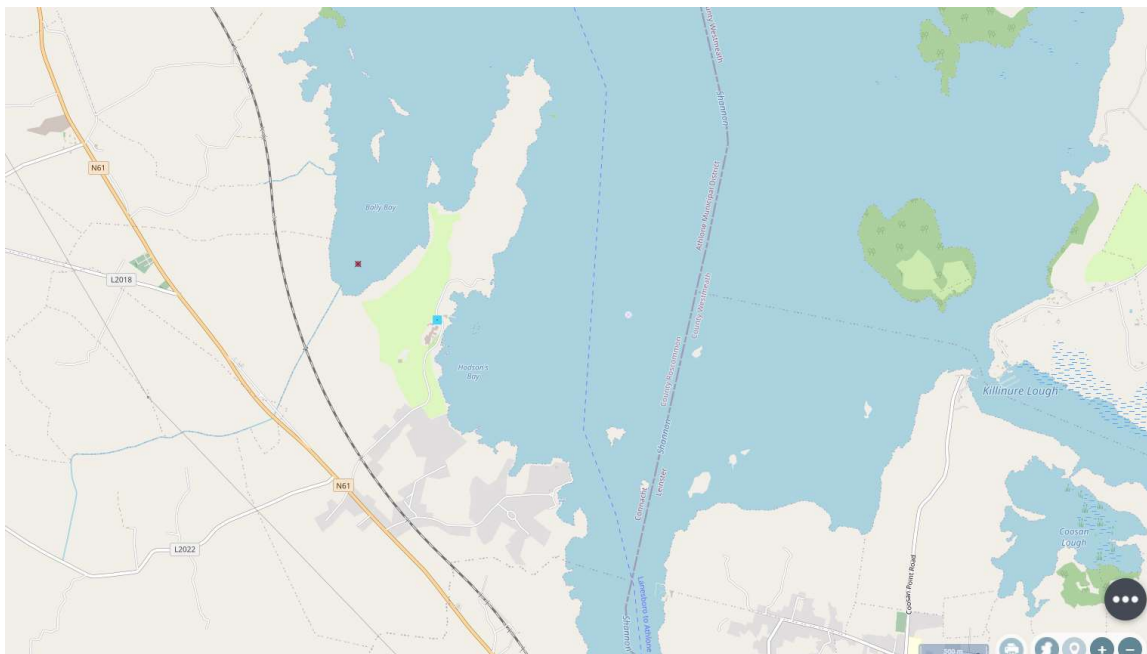


Figure 18 UWW Plant Location and Emission Point

8.2 Water Supply

The Hodson bay area is a recognised serviced settlement and existing water supply infrastructure is in place for the area highlighted in Figure 22. The area at Yew Point is currently un-served.

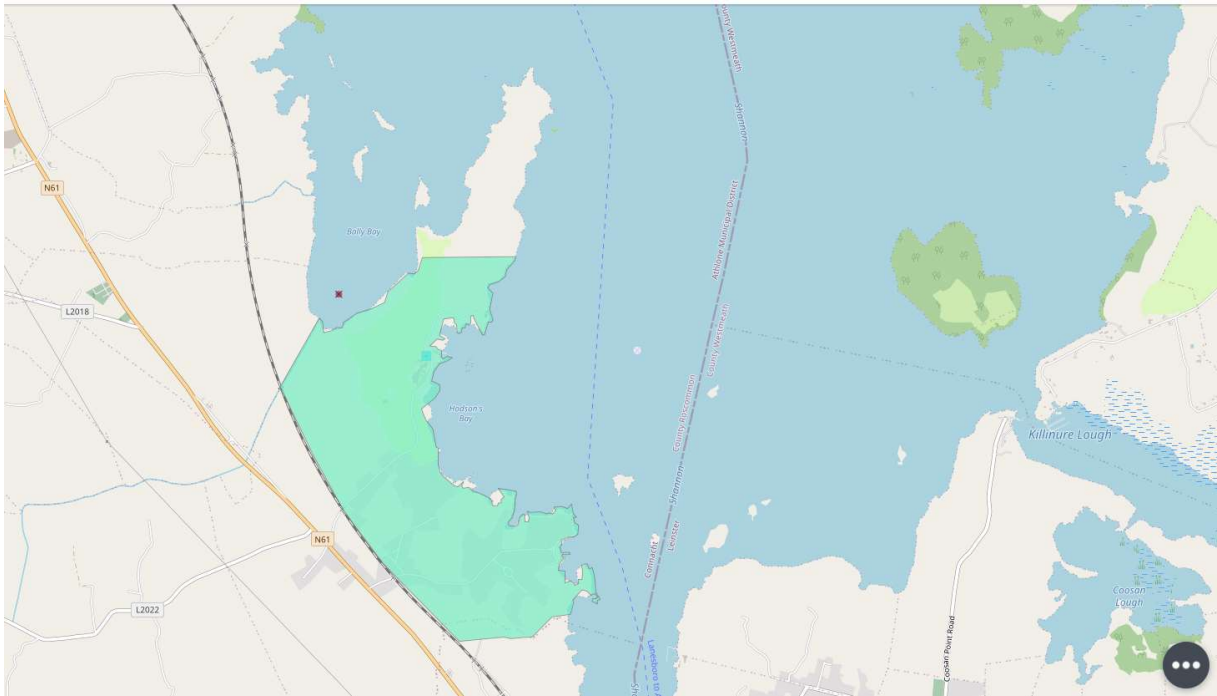


Figure 19 Agglomeration Boundary - Hodson Bay and Environs

8.3 Irish Water

Irish Water was formed in July 2013 as a semi-state company under the Water Services Act 2013. As of January 2014 Irish Water replaced local authorities as a single provider of water and wastewater services. It is responsible for the operation of public water and waste water services including management of national water assets, maintenance of the system, investment and planning, and managing capital projects. Irish Water is regulated by the Environmental Protection Agency (EPA) as the environmental regulator and the Commission for Energy Regulation (CER) as the economic regulator.

8.3.1 Irish Water Objectives for Development

With reference to **Irish Water Objectives for Development (2019)**, the following comprise general policies in relation to Water Services

- Prior to granting planning permission the Councils should ensure that adequate water services will be available to service development, and will require developers to provide evidence of consultation with Irish Water prior to applying for planning permission;
- To protect existing way leaves and buffer zones around public water services infrastructure through appropriate zoning and to facilitate the provision of appropriate sites for required water services infrastructure as necessary;

Water Supply

- To protect both ground and surface water resources including taking account of the impacts of climate change, and to support Irish Water in the development and implementation of Drinking Water Safety Plans and the National Water Resources Plan;

- To promote water conservation and demand management measures among all water users, and to support Irish Water in implementing water conservation measures such as leakage reduction and network improvements.

Wastewater Services

- To ensure that the Local Authority provides adequate storm water infrastructure in order to accommodate the planned levels of growth within the plan area and to ensure that appropriate flood management measures are implemented to protect property and infrastructure;
- To require all new development to provide a separate foul and surface water drainage system and to incorporate sustainable urban drainage systems where appropriate;
- To prohibit the discharge of additional surface water to combined (foul and surface water) sewers in order to maximise the capacity of existing collection systems;
- To ensure that all new developments connect to the public wastewater infrastructure, and to encourage existing developments that are in close proximity to a public sewer to connect to that sewer, subject to a connection agreement with Irish Water;
- To ensure that the provision of private wastewater treatment facilities for residential development, other than single house systems, should not generally be considered by planning authorities. Irish Water will not retrospectively take over responsibility for developer provided treatment facilities or associated networks, unless agreed in advance;
- The provision of single house septic tanks and treatment plants in the Plan area will be strongly discouraged to minimise the risk of groundwater pollution. Where such facilities are permitted, full compliance with the prevailing regulations and standards, including the EPA's Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (PE. ≤10) (EPA 2009), as may be amended, will be required;
- To ensure that private wastewater treatment plants, where permitted, are operated in compliance with their wastewater discharge license, in order to protect water quality

Developers are obliged to obtain a Connection Agreement from Irish Water for the provision of water services (water supply & waste water) necessary to service any proposed development prior to any works commencing on site.

8.4 Options for Non Serviced Sites (Lodges at Yew Point)

Yew Point is currently un-serviced with respect to Water Supply and Wastewater. Subject to the grant of planning permission, the peninsula will include new self-catering lodges and glamping pods. A conservative estimate of the number of people utilising these facilities is 400 and a strategy is required for the treatment and disposal of wastewater generated by the self-catering accommodation.

Given the environmental sensitivity of the location, the strategy developed will have to ensure wastewater is treated to an excellent standard.

Volume and load of wastewater requiring treatment

To enable the volume and load of wastewater requiring treatment to be determined, the British Water Code of Practice -4 Flows and Loads- sizing criteria, treatment capacity for sewage treatment systems was utilised.

This code of practice was prepared by the British Water Package Sewage Treatment Plant Focus Group comprising manufacturers, suppliers and service companies of all types of small wastewater treatment systems. A number of European environmental regulatory agencies support the use of this code of practice, but do not specifically endorse any particular manufacturer's product. This code of practice provides a table of loadings that allows the total daily wastewater load from properties to be calculated and it is recommended that all designers should use this table when sizing and designing non-mains sewage treatment systems. The flows and loads values given represent the current best knowledge within the UK but may change with time in line with per capita water

use. The table of loadings may be used to design all sizes of wastewater treatment systems serving up to 1000 of the population.

Volume and load determination

In determining the volume of wastewater requiring treatment it is assumed that the occupancy of the self-catering properties is 400 people.

Determination of the volume of wastewater and associated load requiring treatment is shown in the Table 10. The full Code of Practice calculation and conversion to a domestic population equivalent is attached as an appendix.

Table 10 Wastewater volume calculation

Population	Code of practice section	Code of Practice Flow and Load			Resulting Flow and Load		
		L/h/d	BOD g/h/d	NH3 g/h/d	Volume m ³ /d	BOD Kg/d	NH3 Kg/d
400	Self-catering resort facilities	227	94	10	91	37.6	4

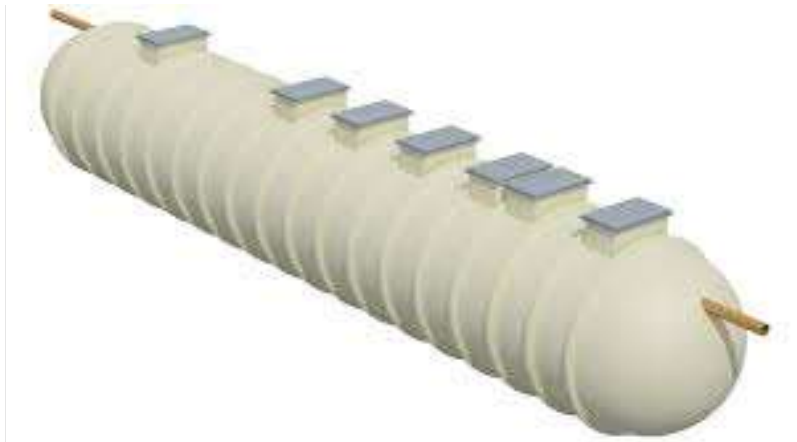
Conversion of the flow and load determined in Table 10 to a domestic population equivalent produces an equivalent of 454, therefore the treatment processes selected for the strategy must be sized to accommodate that population equivalent.

Wastewater treatment

We would suggest that the most practical and appropriate method of treatment for the wastewater generated by the development at Yew Point would be a pair of package wastewater treatment plants specifically designed to treat the wastewater generated by the equivalent of a population of 250 people, operating in parallel. Such an arrangement will give effective treatment as the occupancy of the resort varies.

An example of such a package wastewater treatment plant is a Klargester 67H, which uses well established technology with a plug flow combination of aerobic and anoxic processes in a fluidised bed arrangement and an advanced system of air diffusers to treat wastewater to a high standard.

Figure 8-20 Klargester 67H Package Wastewater Treatment Plant



Package wastewater treatment plants are typically installed below ground and therefore have a very low aesthetic impact, the blowers supplying aeration are designed to run very quietly so that noise nuisance is not generated. Sludge generated by the treatment process will need to be removed from the plants on three or four occasions per year, therefore access for a tanker is need to be included in the general arrangement of a wastewater treatment and disposal system. (Access to be further considered.) The sizing specification of each Klargester 67H units is shown in Table 11.

Table 11 Klargester 67H Specification

	Klargester 67H
Max Flow (m ³ /per day)	50
PE	250
Flow l/d	37500
BOD ₅ g/d	15000
NH ₄ -N g/d	2000
Overall Length (m)	13.5
Height (mm)	
500mm inlet / 650mm outlet invert	2960
800mm inlet / 950mm outlet invert	3260
1500mm inlet / 1650mm outlet invert	3960
2000mm inlet / 2150mm outlet invert	4460
Volume (m ³)	67
Weight approximately (kg)	4700
Inlet / Outlet Diameter (mm)	160

Fats Oils and Grease

An important factor which needs to be borne in mind regarding the operation of a package wastewater treatment plant is that the presence of concentrations of Fats Oil and Grease (FOG) in the wastewater undergoing treatment has a detrimental effect on the process efficiency of the plant. It is therefore vital that grease interceptors are included in the wastewater treatment and disposal system detailed design for the resort self-catering accommodation. Such interceptors will need to be emptied on a routine basis, and therefore need to be positioned so that such routine operations can be undertaken.

Treated wastewater disposal

Nature-based solutions to surface water management and drainage will need to be incorporated into the design of any development. This will need to be tailored to the site and the proposal. Given the need for a high standard of wastewater treatment, we suggest that treated effluent from the package treatment plants is passed through a conservatively designed constructed wetland before discharge.

The hydraulic load of treated wastewater, discharged to a constructed wetland for tertiary treatment is typically within the range of 190-940 m³/ha/d. Conservative sizing of the wetland will encourage the wetland to utilise the majority of the daily volume of wastewater as a source of water and nutrients with a discharge only occurring when significant volumes of rainfall impact the volume of water passing through the wetland.

The construction of a wetland also has a positive benefit on biodiversity within the development area.

Outline General Arrangement

Utilising the hydraulic loading range of 190-940 m³/ha/d, the upper and lower design surface areas for a constructed wetland are described in Table 12.

Table 12 Constructed Wetland Surface area

Discharge volume m ³ d	Wetland hydraulic loading m ³ /ha/d	Wetland surface area/ ha	Wetland surface area/ m ²
91	190	0.47	4700
91	940	0.1	1000

8.4.1 Summary of Requirements

Development at Yew Point will lead to the generation of wastewater which is equivalent to a population of 454 people. To ensure that wastewater is treated to a very high standard a treatment strategy utilising ;

- Two 250-population equivalent wastewater treatment package plants operating in parallel, and
- Tertiary treatment by a constructed wetland of between 1000 and 4700 m² surface area , would;
 1. Result in discharges of high-quality effluent to the Lough only during periods of wet weather .
 2. Mitigate the biodiversity of the development.

Costs

Based on recent SLR projects of a similar nature, a budget price for the purchase and installation of such a treatment and disposal system is of the order of €500,000 and does not include the infrastructure required to transport wastewater from the individual accommodation units to the treatment facility.

Assessment of Feasibility

There is a risk that the European designated Natura 2000 sites in close proximity to Yew Point will impact on the feasibility of proposed servicing arrangements outlined above. The package wastewater treatment plants will also need electrical power, which may or may not be available. Access for desludging may also be an issue, and the desludging process may result in the presence of short-term odour nuisance.

Proposals would be subject to standalone appropriate assessment and it should also be noted that a constructed wetland cannot be located in an area of flood risk.

9.0 Outline Cost and Wider Benefit for Preferred Options

9.1 OMC Costings

OMC Costings for the items identified in this report are set out below and a detailed breakdown of these costings is provided in Appendix 07. They are based on the following assumptions

- They are based on concept designs. All costs are high-level budget figures and can be confirmed with detailed drawings and specification.
- It is assumed that the projects will be competitively tendered utilising standard forms of contracts.
- Project delivery will need to be phased.
- Items marked as optional or private sector led could/ would be excluded to reduce costing as outlined in Section 9.1.3.
- The professional fees assume the full services of a landscape architect, architect, structural engineer and quantity surveyor and M+E consultant.
- The costs are exclusive of VAT.

Project Item	€
Car parking area (North Bay) (1700 m2)	306,745
Events Meadow (375 m2)	286,900
Watersports facility (Water sport facility of 1,356 m2 & Water sport café; 1,080m2)	10,964,480
Bay Plaza Space (3000 m2)	716,303
Coach Drop off area (75 m2)	15,964
Water sports centre parking area (West) (2800 m2)	458,735
Play space (2000 m2) Optional	623,900
Beach (1000 m2)	76,700
Sundeck (2000 m2)	755,300
Marina Square And Gardens (4500 m2)	855,738
Travel Hub Pavillion (90 m2) and Fit out	358,575
Marina Car parking area (South) (1625 m2)	301,312
Breakwater (110m)	409,500
Enhanced Marina and boardwalk	2,696,775
Viewing deck (287 m2)	387,774
On water Floating Flexible space event space (575 m2)	819,000
Floating boardwalk Break water to lido (218m/ 1282sqm)	812,100
Water Plat Archipelago (314sqm) Optional	462,542
Wild swimming deck (165sqm) Optional	243,664
On water floating lanterns (7Nr) Optional	30,000
Lagoon	37,500
Promenade path (Marina to water sports centre) (700 m2)	222,906
Rolled Gravel paths (850 m2)	190,109

Project Item	€
Hardwood timber boardwalk through wetland (266 m2)	354,096
Northern Car parking area (North) (2750sqm)	499,754
Site wide Furniture Items	236,900
Road widening for cycle / Pedestrian (3766sqm)	464,351
Carparking for Active travel hub (North) (3600sqm)	521,018
Eco Bus Shelters (4Nr)	49,500
Waste water treatment plant at Yew Point (600,000) This cost is likely to be omitted as private sector led.	600,000
Land Acquisition	TBC – see below
Total Building Contract Estimate/Budget (excluding Preliminaries)	24,758,141
Plus Preliminaries / Profit	3,713,721
Total building Budget Estimate	28,471,862
Professional fees and Specialist Survey	4,270,779
Project Contingency	3,274,300
TOTAL	36,016,941¹⁰

9.1.1 Parking Typologies - Costing

Parking Typology	Approximate Cost per Space
Multi storey option	€23,000.00 per space
Standard Car park option	€5,500.00 per space

9.1.2 Site Acquisition Costings

The average price of agricultural land in the Roscommon area generally averages at €8,000 per acre. However serviced land, land that is zoned or located within the settlement boundary and land that is located in premium locations i.e. close to the lakeshore are likely to sell for a premium.

Site	Site size (acres)	Cost
1. Watersports Car Park - New Car Parking and also to accommodate coach drop off for the Watersports facility as well as the shuttle bus	0.95	TBC

¹⁰ This excludes inflationary costs

Site	Site size (acres)	Cost
2. At access Road to Yew Point	0.72	TBC
3. At Entrance to Hodson Bay	5.72	TBC

9.1.3 Cost Reduction Options

Project delivery will need to be phased to manage costs over time. Overall capital costs could be phased or reduced according to the following Options:

- Option 1 Scaled back masterplan elements
- Option 2 Further scale back of masterplan elements
- Option 3 Scaled back Core Masterplan Elements - reduction in size of the café and Water sports facility

Option 1 – Scaled back Masterplan Elements

This option excludes the following items for the costings

- Events Meadow (375sqm) 286,900
- Play space (2000sqm) 623,900
- On water Floating Flexible space event space (575sqm) 819,000
- Water Plat Archipelago (314sqm) 462,542
- Wild swimming deck (165sqm) 243,664
- On water floating lanterns (7Nr) 30,000
- Waste water treatment plant at Yew Point (600,000) This cost could be omitted as private sector led. 600,000

This would reduce costings by €3,066,006.

Option 2: Further scale back of masterplan elements could remove the following elements:

- Floating boardwalk Break water to lido 812,100
- Lagoon 37,500

This would further reduce costings by €849,600.

This would give a total reduction for option 1 and 2 of €3,915,606.

Option 3: Revised Approach to Water sports Facility

Ultimately, cost of facility will depend on

- Size
- Materials specification
- Shape of the building

These parameters will depend on detailed design stage.

9.2 Economic Benefits and Cost benefit analysis

9.2.1 Methodology

In order to estimate the additional economic spin-off, a multiplier of €38 for day visitors to the attraction and €94 for overnight visitors is used. These are estimates based on typical spend from day and overnight visitors based on the 2019 Fáilte Ireland factsheet. These multipliers are then updated to current price levels using consumer price indices giving €44 for day visitors and €108 for overnight visitors.

Research undertaken by Fáilte Ireland in the drivers of satisfaction survey in 2018 indicates that 47% of visitors to an attractive tourism area of Ireland are staying over in the area. (Source –FI Drivers of satisfaction survey 2018, this particular research was carried out for Ireland’s Ancient East but is likely to apply equally in the Hidden Heartlands). For the purposes of working out economic benefits to Hodson bay, a rate of 75% of the total visitors as day visitors and 25% as overnight visitors was used as it was felt that the numbers would skew towards day visits, particularly with the nature of the Water sports facility.

Fáilte Ireland’s research under the Destination attitudes survey in September 2019 further backs up this finding with a finding of 44% staying in the area. (Source – FI Destination Attitudes survey 2019 IAE Brand area). The overnight stay percentage of 25% is therefore considered reasonable. This is increased to 28% as a result of the investment to reflect a more attractive set of facilities to justify greater overnight stays.

The total number of domestic visitors likely to stay in the area overnight is estimated at 10%. (The remainder of 15% overnighing are assumed out of state)

Figure 25 provides an estimate of the potential economic contribution delivered by this investment each year. Please note that this figure is indicative only as accurate information is not available on existing visitor numbers or current overnight stays nor likely overnight stays created by this investment.

9.2.2 Visitor numbers

It is assumed that the Watersports facility and Marina are primary facilities in the development and therefore are counted in full in the visitor number calculations - The Cafe and Promenade are secondary and therefore have adjustments to deduct the same people visiting both (to avoid double counting) - 40% and 20% respectively.

	Before Investment	Post Investment	Adj for unique visitor	Adjusted figures
Watersports facility -re-imagined	50,000	100,000		100,000
Café	-	35,000	14,000	21,000
Marina	11,168	19,200	-	19,200
Premenade - Re-developed	38,700	58,000	11,600	46,400
Total Visitor Numbers	99,868	212,200	25,600	186,600

Hodson Bay - Economic Impact of the 2 projects		
	Existing	Post Development
Visitor numbers	99,868	186,600
Day visitors	74,901	134,352
Overnight Visitors	24,967	52,248
Total	99,868	186,600
Economic Impact per visitor		
Day visitors	44	44
Overnight Visitors	108	108
Total Economic Benefit	5,992,080	11,554,272
Additional Economic Impact		5,562,192
Total Project Cost		36,000,000
Average Return/Pay back		15.45%

Figure 21 Economic Impact

In summary and based on the calculations above, the benefits of the investment in these 2 key projects at Hodson Bay are significant. The following assumptions as to economic benefits are considered appropriate -

- Job Creation – New jobs will be created directly by the new investment across the Marina, Promenade and new Water Sports Centre. There will also be indirect job creation in local hospitality and service industries due to the additional number of visitors to the area.
- Over 86,000 additional visitors to the Hodson Bay area will occur as a result of this investment. This is estimated by working out approximate vehicular movements in the post investment period and taking an average number of people per car.
- The overall output is Economic return over 15% and a total Discounted cash flow of €99m over 20 years less cost of €36 giving a positive discounted cash flow/Net present value over 20 years of €63m

This is based on extending the model out to 20 years and built in re-investments to upgrade of €10m in year 10 and €15 in year 20 which protects the Economic benefit annual recurring amount over at least the 20 year period. The re-investments both at year 10 and year 20 are set to provide collectively for re-investment of 70% of the initial cost. This is prudent assuming that 40% of the need to re-invest occurs in first 10 years with a higher proportion at 60% occurring over the second 10 years. Inclusion of these re-investment figures ensures that up to this amount can be re-invested still protecting the net present value of €63m in the model.

It is also assumed that Economic benefits take time to mature and only fully mature after year 3 - years 1 and 2 assumed at 60% and 80% of full benefit respectively. The inflationary increase in economic benefit is assumed at 5% per annum

- The cost of additional maintenance and upkeep by the County council each year is assumed to start at €80k and grow by inflation thereafter
- The overall output is Economic return over 15% and a total Discounted cash flow of €99m over 20 years less cost of €36 giving a positive discounted cash flow over 20 years of €63m

10.0 Delivery

10.1 Delivery Structure

A dedicated delivery group with representatives of the steering group will be responsible for leading project delivery.

10.1.1 Project Funding Options

Funding options may include:

- RRDF
- Outdoor Recreation Fund
- Failte Ireland – Capital Project Funding
- Private Investment

The Hodson Bay Constraints Study and Preferred Options Report presents an outline concept for the improvement of facilities at Hodson Bay. The costs associated with the concept are therefore also outline and indicative in nature.

Based on current outline assessment of likely economic return, some elements of the concept may require alternative funding models requiring based on private capital financing sources of funding. At this stage, it appears that a private sector partnership is likely to be required with respect to the redeveloped Watersports facility in particular.

For this reason, detailed costing, return on investment and funding plan must be revisited at detailed design stages for each of the projects. This approach may result in a phasing of proposals at Hodson Bay and investment taking place on a modular basis.

10.2 Risk Appraisal

A Risk assessment for the project, setting out the principal risks associated with each design option, and assessing their probability of occurrence, estimated cost if they do occur, and potential mitigation strategies, based on our findings in earlier stages of the project, consultations, site visits and experience of similar projects elsewhere.

The risk appraisal will cover any environmental, Heritage and economic risks that arise and a plan to manage and mitigate these risks.

No.	Category	Description	Risk Mitigation	Responsible	Target Delivery	Level	Status
1	Detailed Design	Site Acquisition to support car parking strategy	If agreeable to RCC, confidential strategy to be prepared	RCC	tbc	High	Open
2	Planning application	Stakeholder/public opposition to proposals	Detailed parking strategy and site acquisition	Hotel/RCC	tbc	high	Open

No.	Category	Description	Risk Mitigation	Responsible	Target Delivery	Level	Status
4	Planning Application	Environmental Impact	Environmental Surveys	RCC / WI	tbc	High	Open
5	Visitor Economy	Continued Baysports Operation	Ongoing engagement with Baysports	RCC / FI	tbc	High	Open
6	Project Viability	Financial Viability with respect to the redevelopment of the Watersports Facility	Consider role for Public Private Partnership	RCC	tbc	High	Open

10.3 Phasing

10.3.1 Enabling Development Strategy

Important aspects of the spatial strategy are reliant on the reallocation of car parking space to more space for the public realm. An access strategy has been developed to support this and includes the reduction of car parking along the lakeshore and the provision of new car parking areas across the site. The detailed design stage must be supported by a detailed parking strategy.

10.3.2 Additional Baseline Surveys

The detailed design stage will also require additional inputs to inform the approach.

River Channel Surveys

Additional bathymetric survey data will be required to finalise the layout of the proposed marina and associated boardwalks. The current survey only covers a certain area and further information is required to ensure that proposals don't clash with the navigation line.

Ecology Surveys

As a minimum, phase 1 habitat surveys for all greenfield development and 2 years of bird surveys will be required for all development areas.

Flood Risk Assessment

Given that Hodson Bay is prone to flooding, a Site Specific Flood Risk Assessment will be required and shall be carried out by suitably qualified persons, in accordance with *The Planning System and Flood Risk Management Guidelines* (DECLG,2009).

Nature-Based Solutions

Due to the location and nature of the development proposed¹¹, it is essential that nature-based design solutions are constructed to help manage the impact on surface water drainage and flood risk elsewhere in the area. It is noted that one of the key elements of successful water-sensitive planning and design, is the acceptance that all urban spaces should have multiple uses.

11

To apply this a water-sensitive urban design approach should be pursued and an assessment should be carried out to map the anticipated rain flow patterns and new areas can be designed to contribute to the retention, treatment, and storage of rainwater. This will be achieved by incorporating nature-based solutions into the detailed design, which will also contribute towards placemaking objectives.

The use of trees and low-growing planted areas is a widely accepted approach to retaining and treating rainwater runoff. The planted area must be designed in a way to allow runoff from the nearby impermeable area to infiltrate into it. Planted areas should also be able to withstand wet weather and drought conditions so that there is less need for external watering during dry weather. Low growing planted areas, rain gardens, and swales must be designed using specialized growing media below the surface, sometimes contained within an artificial membrane and with climate and location appropriate planting. There should also be underground drainage to take the rainwater after filtration and to take any excess flows in extreme events. Trees can also form part of nature-based solutions to the management of rainwater and surface water runoff. However, concreted areas can be hostile environments for trees due to the constriction from adjacent underground structures and the limited capacity to absorb water. To resolve these issues, urban trees are often planted into specially designed 'tree pits' that are composed of designed soils and substrates that can both support the surrounding paved areas, roads, etc., and allow for water movement, air diffusion, and tree root growth.

Nature-based solutions offer the opportunity to protect, manage and restore natural ecosystems, biodiversity, increased wildlife and address societal issues such as climate change and amenities for physical and mental wellbeing. Measures to be considered should facilitate natural slowing and filtration of stormwater runoff from our roofs, streets and public realm by the creation of

- green building surfaces,
- green roofs,
- raingardens,
- swales,
- permeable surfaces,
- bioswales,
- natural water collection,
- storage ponds.

These measures that also be complemented within the broader context through the creation of green spaces and the extensive planting of trees within the public and private realms.

10.3.3 Detailed Design

Detailed details should be prepared and agreed upon for each element of the proposed design for the submission as part of a planning application. Detailed costing, an assessment on the return on investment and funding plan must be prepared at this stage.

10.3.4 Phased approach to Planning Applications

Once enabling works, additional survey requirements are carried out, detailed designs can be submitted by way of individual planning applications:

- Phase 1 – Enabling Works - Site Acquisition, Planning and Development
- Phase 2a - Gateway Public Realm and Section 1 of Promenade
- Phase 2b – Waterways Ireland Marina Development
- Phase 3 - Section 2 of the Promenade and Lido
- Phase 4 – Final section of the Promenade
- Phase 5 – Redeveloped Watersports Facility – dependant on financial viability and subvention by way of a potential public-private partnership.

An Indicative Timeline for Delivery of Preferred Options is set out below.

Indicative Delivery Programme	Q3 - 23	Q4 - 23	Q1 - 24	Q2 - 24	Q3 - 24	Q4 - 24	Q1 - 25	Q2 - 25	Q3 - 25	Q4 - 25	Q1 - 24	Q2 - 24	Q3 - 24	Q4 - 24
Phase 1 Enabling Development Strategy														
a) Site Acquisition & Detailed Car Parking Strategy														
Phase 2 Additional Baseline Surveys														
a) Bird Surveys														
b) River Channel Surveys														
c) Flood Risk Assessment														
Phase 3 Detailed Design of Promenade														
Phase 4: Phased approach Planning Applications														
Phase 1 - Gateway Public Realm and Section 1 of Promenade														
Phase 2 – Waterways Ireland Marina Development														
Phase 3 - Section 2 of the Promenade and Lido														
Phase 4 – Final section of the Promenade														
Phase 5 – Redeveloped Watersports Facility – dependant on financial viability and subvention by way of a potential public-private partnership.														

APPENDIX 01: PLANNING POLICY

National Planning Framework

It is noted in Chapter 1 through section 1.3 Shared Goals – Our National Strategic Outcomes enhance amenities and heritage to ensure that cities, towns, and villages are attractive and can offer a good quality of life. This will require investment in well-designed public realms and amenities in rural areas such as national and forest parks and activity-based tourism.

Section 2.2 Overview of the NPF Strategy is important as it outlines promoting economic opportunities from natural assets, such as tourism from Ireland’s rural fabric which underpins the improvement in quality of life.

Section 3.3 Northern and Western Region is significant as it illustrates the region where Hodson Bay is located. It notes that policy approaches must be tailored to capitalize on sectoral strengths such as tourism and to incentivize town and village renewal through the Rural Regeneration and Development Fund.

It is noted in chapter 5 in section 5.1 Why Rural Places Matter, that the agri-food and tourism sectors are important for rural economies and employ over 363,000 people constituting 18% of the national workforce. Section 5.4 Planning and Investment to Support Rural Job Creation is of relevance as it notes that local services sectors including tourism play a significant part in the rural economy and are important local employers. This is combined with the fact that diversifying the rural economy is considered an essential aspect in maximizing the link between employment and other issues such as climate change and managing sustainable land use. It is appreciated that Ireland’s natural resources are some of its greatest assets culturally and naturally which constitute the ‘raw material’ of the tourism industry which fully utilize the ‘production capability’ of the sector. In this regard, Tourism can sustain communities, create employment and deliver real social benefits for rural Ireland directly and indirectly.

Section 9.4 Creating a Clean Environment for a Healthy Society appreciates that Ireland’s rich water resources are of strategic importance and water bodies are a means for leisure activities in the tourism sector where the vast majority of bathing waters are of high quality.

Implementing the National Planning Framework will be focused on policies, actions and investment to deliver the 10 National Strategic Outcomes, where some include tourism.

National Strategic Outcome 3

‘A strong start has also been made in the development of a national long-distance Greenway/ Blueway Network. Such a network, including rural walking, cycling and water-based recreation routes, as well as ‘peatways’, has demonstrated major potential to bring new life to regional and rural locations through the “win-win” scenario of increased tourism activity and healthier travel. Developing this network further will diversify our rural economy by embracing the potential for a major expansion in the demand for activity based tourism.’

National Strategic Outcome 5

‘Developing the potential offered by connectivity and digitisation of rural areas and the better use of knowledge, for the benefit of inhabitants and businesses, is important. This can include e-literacy skills, access to e-health and other basic services, innovative solutions for environmental concerns, circular economy application to agricultural waste, promotion of local products supported by technology and ICT, implementing and taking full benefit of smart specialisation agri-food projects, tourism and cultural activities.’

National Strategic Outcome 7

‘The Rural and Urban Regeneration and Development Funds will support transformational public realm initiatives to give city and town centre areas back to citizens, encouraging greater city and town centre living, enhanced recreational spaces and attractiveness from a cultural, tourism and promotional perspective.’

RSES for the Northern and Western Region 2020 -2032

Section 2: People and Places - Rural Towns and Villages notes that smaller towns in the region although challenged, are host to key assets such as cultural heritage, historic buildings, local businesses, and high levels of social capital. An increased tourism product is seen as one of the prime factors in taking advantage of the key assets in the region. The asset use of tourism is further exemplified on page 5 through implementing eco-tourism, by 'developing an identity for the region associated with high environmental quality and developing tourism options for those with an interest in the area'. This underlies the importance of sustainable development of tourism in the Northern and Western Region.

On page 5 Growth, the Western Region is described as having several key regional assets which form part of its 'value proposition'. This is a location to live, work, do business, and visit. It is noted that effective regional development requires harnessing these regional assets. Tourism is considered one of these many regional assets which could provide a significant number of opportunities in the region.

On page 6 under the heading of 'Greenways', it is noted that drivers of the rural economy such as tourism, require jobs and innovation policies that are cognizant of the characteristics of these sectors in rural areas and address growth barriers. It is appreciated that the sensitive development of biodiversity, conservation, cultural heritage, and landscape assets is important for society and the planning of tourism developments.

Roscommon County Development Plan 2014 – 2020

It is noted in Chapter 2: Core Strategy and Settlement Policy that Hodson Bay is a Tier 3 settlement within the County's settlement strategy. Cortober, Strokestown, Elphin are also categorised as tier 3 settlements. The County Development Plan describes that these centres have a more limited range of services than Tiers 1 and 2 but still have potential as local service centres in their own right. Cortober which has a rail service (serving the settlement of Carrick on Shannon) is envisaged to develop within the context of the development of Carrick on Shannon whilst Hodson Bay/Barrymore is emerging as a residential area with a degree of local services available. Strokestown & Elphin are more traditional settlements in terms of their urban form and range of facilities on offer. These settlements are serviced by public sewerage with the capacity for anticipated population growth (see chapter 4).

Chapter 3: Economic Development is also of significance as it outlines that Roscommon's share of the Irish tourism market is small, accounting for less than 1% of the national market share of overseas tourism. However, **it is described that there are also opportunities for appropriate water based activity on and in the immediate environs of Lough Ree and the Shannon.** It is stated that the Council also seeks to promote the development of and ensure sufficient lands are reserved for tourist accommodation and information services of appropriate scale in all key towns within the County and in Tulsk and Arigna village cores. It is further stated that **the development of economic activities of appropriate scale within settlements such as Cortober, Roosky, Termonbarry, Ballyleague Hodson Bay/Barrymore, Knockcroghery and Cootehall, will also be encouraged on the Lough Ree, Shannon, Lough Key waterway network. The focus here is capitalising on water based tourism and transport.**

Section 3.5.2 **Promoting New Tourism Development** is of particular significance as it sets out a vision for Tourism in County Roscommon. This made up of four key points as follows:

- Maximise and build upon the high quality transportation linkages and permeability of the County within the West Region.
- Capitalise upon key natural resources such as Lough Key, The Shannon and Suck and associated lakes and waterways.
- Position the County as a leading heritage destination.
- Enhance the accommodation offering in the County, particularly within settlements within tiers 1 to 3 of the settlement hierarchy.

It also noted within the same section that **the Council supports tourism development of appropriate scale within settlements on the Shannon Corridor and its calling points such as Cortober, Roosky, Termonbarry, Ballyleague/lanesborough, Hodson Bay, Shannonbridge, Lecarrow, Gailey, Portrun, Drumharlow, Battlebridge and Cootehall which focuses on the provision of tourist services for water based tourism. There is potential for angling, archaeology and tourism generally to be further developed along the River Shannon corridor.**

With respect to Tourism accommodation the County Development Plan further describes that the Fáilte Ireland “West Fact Card 2010” indicates that **only 2% of visitors to the West of Ireland stay in Caravan and Camping Sites. There are several caravan and camping sites in the County, (e.g. Lough Key, Hodson Bay and Gailey Bay Caravan and Camping Parks).** Caravan and camping parks can be visually obtrusive particularly in high amenity areas or areas of outstanding natural beauty. **However, RCC recognises the need to provide tourist accommodation for all price ranges and a variety of lifestyles, therefore, all caravan and camping park proposals are required to ensure that the design, operation and impact do not unreasonably affect the amenity of the surrounding landscape.**

The chapter also provides a number of tourism policies, that relevant to Hodson Bay is as follows:

Policy 3.69

Support tourism development of appropriate scale within settlements on the Shannon Corridor and its calling points such as Cortober, Roosky, Termonbarry, Ballyleague/lanesborough Hodson Bay, Shannonbridge, Lecarrow, Gailey, Portrun, Drumharlow, Battlebridge and Cootehall, which focuses on the provision of tourist services (e.g. nature and heritage based activities) for water based tourism.

[Emphasis Added]

Hodson Bay/Barrymore Area Plan Variation no. 1

The Hodson Bay Area Plan (as varied) which became effective on 24th July 2017 is also of relevance. It is described in the introductory chapter that the principal land use issues in this area include:

- the presence of a large residential population;
- the provision of limited community facilities i.e. a school, golf course and a small shop
- the presence of the Hodson Bay Hotel on the shores of Lough Ree which draws people to the area;
- agricultural activities still being undertaken within the development envelope;
- the use of septic tanks and other individual wastewater treatment systems;
- road access and traffic safety;
- the railway line bisects the Area Plan area and no stop exists in the area;
- conservation of the natural and built environment; and
- urban generated housing.

Of relevance is section 8.1 **Community Facilities** and Section 9.1 **Open Space and Sporting Provision**, which describe that with the increase in the population of the Hodson Bay/Barrymore area is the need for social and community facilities. The following are the community facilities that exist in the Area Plan area:

- Ballybay National School.
- Watersports is an ISA accredited boat training and watersports centre which is situated beyond the Hodson Bay Hotel.
- The Hodson Bay Hotel has a number of facilities including a swimming pool, fitness centre and harbour area for the berthing of boats.
- The 18-hole Athlone Golf Course is also situated adjacent to the Hotel.
- The Church of the Risen Christ at Ballybay.

The small convenience shop, Hodson Bay Stores, is situated on the N61, outside the Plan Area. The Top garage and Spar convenience store is also situated outside the Area Plan area on the N61 as one travels towards Athlone. There is an objective within the Area Plan which indicates that “A Neighbourhood Centre shall be provided along the Link Road (once it is constructed) within the Hodson Bay/Barrymore Area.” In terms of sporting facilities, there is an all-weather pitch adjacent to the church and school. Other pitches for Soccer, GAA and rugby are found in the Monksland / Bellanamullia LAP area, Knockcroghery, Lecarrow, Rahara, Athlone and Roscommon.

An indicative area has been identified for a sports pitch on lands zoned for Phase 1 NR which has easy access to the main road and is centrally located in the Area Plan boundary. This area would be a minimum of one acre and would include the likes of changing rooms and a parking area. In addition, an indicative outdoor play/exercise area has been indicated adjacent to/incorporated into the Roscommon County Council parking area next to the marina. The Council will seek the provision of open space facilities to provide for the recreational needs of the large threshold of residents, workers and visitors in the Plan area and surrounding areas.

Objective 9.7

As mentioned in the Monksland/Bellanamullia LAP, assess the feasibility of the provision of walking/cycling routes in the following areas; from Bogginfin to Hodson Bay a circular route from Bogginfin to Hodson Bay to Barrymore across the N61 and then through the Cushlea and Larkfield Bogs to Monksland.

Section 9.2 **Integrated Tourism And Recreation Development** is also of relevance which emphasises that such an approach is based on local physical, economic, social and cultural resources and local relationships so that tourism experiences are place specific. It is also sensitive to scale, which is appropriate to local circumstances and supports sustainability of resources and activities in ecological, economic and cultural terms.

It is described that Roscommon has a long-established tourism industry that displays integration with the natural and cultural environments. Roscommon County Council recognises the need to build on the facilities already present in the area and support niche markets for example, cycling holidays, archaeological and nature tours, English language learning tours and specialist markets such as activity holidays, and environmental or culturally based tourism. In terms of cycling, there are three which occur in proximity to the Area Plan area:

- The Green Heartlands Cycle Route from Roscommon town to Athlone.
- The Táin Cycling Trail.
- The Lough Ree and the Shannon Cycling Tour.

There is a need to recognise the importance of walking and cycling in County Roscommon from a local as well as tourism perspective. It is stated that Roscommon County Council supports the development of local and tourist walks and cycle routes that consider local requirements as well as economic potential and endeavour to meet these needs on an ongoing basis. Ways should be examined to improve access to the countryside (as promoted in the European Charter of Pedestrian Rights) for informal recreation purposes such as walking, cycling and horse riding, as well as areas of open space, recreation and sports facilities, especially in urban areas within easy access by walking and cycling. Improvements need to be made to walking routes throughout the county and cycle paths need to be provided along public roads where possible. There are two types of cycleways:

- those for the commuter where cyclists ride on the roadway and there may be no clear distinction between the roadway and “cycle path”; and,
- those for the recreational cyclists where raised paths are created adjacent to footpaths and the same rules apply for cyclists and pedestrians.

Walking and cycling routes should be designed to incorporate current thinking and best practice from experience in other locations in order to create more people friendly places. Road safety for pedestrians and cyclists is an

important issue in tourist areas and lower speed limits and priority over motorized transport should be provided, where appropriate. The following provides the Policy for Walking and Cycling Routes:

Policy 9.6

Facilitate the development of walkways and cycleways within the Area Plan area and beyond. Routes should take full advantage of existing amenities such as riverbanks and lakeshores so as to facilitate their enjoyment and exploit their tourism value. All such development shall be subject to screening and Appropriate Assessment in accordance with Article 6(3) of the Habitats Directive and any other relevant environmental assessment deemed necessary by Roscommon County Council.

Policy 9.7

Support the investigation of the potential for off-road walking and cycling trails surrounding the Area Plan area; and for the development of linkages between existing trails and others in adjoining counties; support national trail development policy including the Irish Trails Strategy.

Of particular relevance is section 9.3 **Tourism** which emphasises that Lough Ree is an important amenity and tourism asset and the Council will seek to **protect the sensitive environment of the lake and its shores from inappropriate tourism development**. Tourism development that may potentially have a detrimental impact on the amenity of the lake or surrounding environment will not be permitted.

It is noted therein that Tourism activity is currently centred on Lough Ree and particularly the hotel, golf course, marina, and caravan park at Hodson Bay. The Council will seek to encourage and support the retention and appropriate development of these and other appropriate facilities in the future. The Council will support the development of appropriate green tourism developments adjacent to the shore of Lough Ree and in the Hodson Bay area and will seek to carry out a feasibility study into the development of the Hodson Bay region as a major amenity area.

It is further stated that the Council will **facilitate the development of a shoreline path along the western edge of Lough Ree and the River Shannon to further promote the use of the area for tourism and recreational purposes**. This will provide a linkage from the Hodson Bay amenity area, which incorporates the hotel, golf course, caravan park and marina in the north extending along the eastern edge of the Monksland/Bellanamullia LAP area and Athlone Town in the south.

The Hodson Bay hotel and public amenity area adjoin Athlone Golf Club. Lough Ree provides beautiful lake and island views, and a wide range of leisure activities including boating and fishing. The hotel incorporates a health spa and leisure complex, and has experienced increased demand as a venue for both business and social occasions, notably for midweek conference activities and weekend breaks.

Watersports is an ISA accredited boat training and watersports centre that is situated beyond the Hodson Bay Hotel. The following provides the relevant policies for Tourism and Recreation:

Policy 9.8

Protect the environment of Lough Ree and its shores from inappropriate tourism and recreation based development. All such development shall be subject to screening and Appropriate Assessment in accordance with Article 6(3) of the Habitats Directive and any other relevant environmental assessment deemed necessary by Roscommon County Council.

Policy 9.9

In keeping with the Tourism Strategy for the County and for protecting the environment, support and positively encourage the provision of tourism facilities.

An objective for Tourism & Recreation is as follows:

Objective 9.10

Promote the development of high-quality tourist accommodation ensuring high standards of architectural and urban design.

It is also worth paying due consideration to section 6.4 **Flooding**, which highlights that Lough Ree on the River Shannon is the primary source of flooding within the Plan Area and can cause disruption in the lives of people in certain parts of the community. It states that minor repair and prevention works have been conducted in recent years. The map attached to the Strategic Flood Risk Assessment Report for this Area Plan shows historical flood points and extents of historical flooding in addition to those areas which flooded in 2009.

Roscommon County Development Plan 2021 – 2027

The Draft Roscommon County Development Plan 2021 – 2027 has also been published. Section 2.6 Settlement Hierarchy of Chapter 2 Core Strategy and Settlement Policy outlines that Hodson Bay has been categorised as a Serviced Settlement within the hierarchy. These are described as “settlements that are serviced by public sewerage and have a capacity to facilitate a degree of residential demand”.

Of relevance is section 6.7 Tourism within chapter 6 Economic Development, which provides economic development policy objectives. Those considered most pertinent are as follows:

ED 6.20

Promote tourism as an integral part of County Roscommon’s economic profile, supporting urban and rural enterprise, and recognising the key strategic location of the county and access to tourist sites and attractions.

ED 6.21

Continue to support the implementation of the *Roscommon Tourism Strategy 2017-2020* (and subsequent revisions) in line with national and regional policy, tourism trends and identified challenges, in collaboration with Fáilte Ireland, Waterways Ireland, tourism businesses and communities and other supporting agencies.

ED 6.24

Collaborate with relevant state bodies, neighbouring Local Authorities and local communities in **delivering a UNESCO accredited, Biosphere for Lough Ree and the Mid- Shannon Wilderness Park**.

[Emphasis Added]

ED 6.27

Develop linkages between existing and new trails, particularly those with a historic association in adjoining counties, in cooperation with Inland Waterways, Fáilte Ireland and with other relevant stakeholders to provide linkages with trails in adjoining counties in partnership with their Councils.

Section 11.8 Public Rights of Way within Chapter 11: Social, Community and Cultural Development is also of relevance as it describes that ‘Access to Lough Ree at Hodson Bay’, as follows:

“The L2020 public road which serves the Hodson Bay Hotel ends just after the new extension to the hotel. Bay Sports is accessed via a private road which also serves the public car park beyond Bay Sports and the holiday residences further along the road. There is no public access to the lake beyond this, only that through the gardens of private residences.”

Chapter 12: Development Management Standards is of significance because it provides the relevant standards for **Tourism and Recreational Facilities** within section 12.18. It is stated therein that the Council promotes and encourages sustainable forms of tourism, niche tourism and recreation in the countryside, where appropriate. Proposals for tourism development and supporting facilities should be sensitively located, not interfere with or detract from areas of special amenity value or nature conservation.

Consideration will be given for such developments provided they do not conflict with other strategic objectives in the Plan and meet the following minimum requirements:

- Structures proposed should generally comprise a high quality design with sensitive siting and design so as not to interfere with the visual setting of sensitive visual attractions;
- The development consists of a well-researched, justified and imaginative integrated project;
- The development relates sympathetically to the scale and level of activity in the locality;
- A site specific locational justification is provided for the development proposal.

In terms of sustainable forms of niche tourism and recreation, **facilities should in the first instance be located within existing structures, or in buildings of character requiring renovation or in traditional farm houses, where possible.** Where new buildings are proposed, they should be sensitively located and designed having regard to existing buildings, topography and landscaping and be adequately serviced and suitably managed.

In all cases, the facility shall be of an appropriate scale for the location and shall have a high standard of design, layout, landscape and environmental protection so as not to impact negatively on the visual and residential amenity of the area or have significant adverse effects on the environment.

Given that Hodson Bay is prone to flooding section 12.14 **Flood Risk Protection** is also of relevance. It is noted therein that Some lands are liable to flooding or development proposals may give rise to flooding in other areas. In such cases a Site Specific Flood Risk Assessment may, as appropriate be required. It is emphasised that Flood Risk Assessments shall be carried out by suitably qualified persons, in accordance with *The Planning System and Flood Risk Management Guidelines* (DECLG,2009). The preparation of the Draft County Development Plan is undergoing an appropriate level of Strategic Flood Risk Assessment (SFRA) in accordance with *The Planning System and Flood Risk Management – Guidelines for Planning Authorities* (Department of the Environment, Heritage and Local Government and Office of Public Works, 2009) and Department of the Environment, Community and Local Government Circular PL 2/2014. The SFRA provides an assessment of flood risk and includes mapped boundaries for Flood Risk Zones. The SFRA is an ongoing process, alongside the Plan-preparation process, and will be updated to take into account, for example, any new information or any future changes to the Draft Plan on foot of submissions.

Stage 1 SFRA (flood risk identification) was undertaken in order to identify whether there may be any flooding or surface water management issues within or adjacent to zoned lands and consequently whether Stage 2 SFRA (flood risk assessment) should be proceeded. Most of the County is situated within the Upper Shannon catchments and partially within the Moy and Killala Bay, Sligo Bay and Drowse, and Corrib catchments.

Stage 1 SFRA is based on existing information on flood risk indicators based on historical evidence and computational models. Appendix II of the SFRA shows the spatial distribution of County-wide historical flood risk indicators and predictive flood risk indicators relating to fluvial flooding. Of most significance is **Appendix V**, which provides a flood risk indicator and zone mapping for **Area Plans at Hodson Bay** and Lough Key.

Area Plan for the Hodson Bay / Barrymore area

Volume 2 of the Draft County Development Plan includes an **Area Plan for the Hodson Bay / Barrymore area** in the south of the county. This is provided in section 4.1 Hodson Bay / Barrymore Area Plan. It is stated therein that the Hodson Bay / Barrymore area, whilst not specifically a town or village, warrants the preparation of an Area Plan, owing to the nature of development that has occurred in this area over recent years. It is further stated Roscommon County Council recognises the potential of this area to further develop its leisure/tourism economy. It highlights the strategic **importance of Hodson Bay / Barrymore Area as a serviced area, in close proximity to the designated Regional Growth Centre of Athlone**, and states that it is necessary to ensure that there is a planned approach towards the future development of Hodson Bay / Barrymore.

In terms of context is described that the Hodson Bay/Barrymore Plan area is located on the western shores of Lough Ree, approximately a ten-minute drive from Athlone in the northeast. The area is generally characterised by single dwellings on individual sites, and low density multi-unit residential development within the Plan boundary. Although not a traditional village, the area nonetheless has a strong resident community. There is continued residential demand in the area, owing to its scenic and amenity value on the shores of Lough Ree, along with its logistically advantageous location in proximity to the Athlone and also within short driving distance of Roscommon town. Of significance, it is highlighted The Hodson Bay / Barrymore area is a key location within the county in terms of leisure, tourism and amenity provision. **The area is renowned as a leisure destination and has among its offering Athlone Golf Club, Hodson Bay Hotel and Conference Centre, Watersports water sports centre, and a marina facility.** The area is recognised as having high amenity and natural heritage value. As such, the shoreline with Lough Ree is a designated Natura 2000 Special Area of Conservation.

In terms of Community Facilities, Hodson Bay /Barrymore are principally related to leisure and amenity provision. The resident community generally gravitates towards Athlone for retail, commercial and social related facilities. The area is served by a church and national school a short distance to the north west of the Plan area off the N61 national route at Ballybay, and with St. Brigids GAA facility further to the north.

Notably, the Area Plan provides a specific section on **Leisure, Tourism and Recreation**. It described therein that **Hodson Bay / Barrymore** is an important destination in County Roscommon in terms of its leisure tourism and recreation offering. Tourism activity within the Plan area is centred on Lough Ree and the adjacent facilities and amenities, including particularly the marina, hotel, caravan park, golf course and watersports centre.

The Council recognise the potential of this area to develop further as an important amenity and tourism asset and the Council will seek to support this, whilst ensuring the protection of the sensitive environment of the lake and its shores from inappropriate tourism development. Tourism development that may potentially have a detrimental impact on the amenity of the lake or surrounding environment will not be permitted. The Council will seek to encourage and support the retention and appropriate expansion of existing facilities and also to accommodate appropriate forms of additional leisure, tourism and amenity related development, subject to satisfying all environmental considerations and normal siting and development criteria. In particular, appropriate low intensity green tourism developments adjacent to the shore of Lough Ree will be supported. Roscommon County Council will also engage with relevant stakeholders to carry out a feasibility study into the further development of Hodson Bay / Barrymore as a major amenity area.

It also emphasised that in addition to specific policy objectives set out in this Area Plan, all development proposals arising within the Hodson Bay / Barrymore Area Plan boundary will be required to adhere to relevant policy objectives and development management standards set out in Volume I of the Roscommon County Development Plan 2021-2027, as the overarching Plan, and to adhere to the General Policy Objectives set out in Section 1 of Volume II of the Plan, including in respect of all environmental and flood related policy objectives.

The following **Hodson Bay / Barrymore Policy Objectives** area provided:

HB 1

Facilitate suitable **leisure, tourism and amenity developments** on lands zoned Leisure Tourism / Amenity in order to strengthen the significance of Hodson Bay / Barrymore as one of the main tourism/recreational attractions in County Roscommon and regionally.

HB 2

Support the future **expansion of existing tourism and leisure facilities**, while ensuring that access to facilities continues to be provided for the general public, so that Hodson Bay continues to function as a valuable amenity resource for Roscommon.

HB 3

Encourage developments which are quality driven and of high architectural merit, which will enhance their surroundings and respect this visually and environmentally sensitive area.

HB 4

Facilitate low intensity tourism and amenity development only (for example, camping or glamping facilities, walking / cycling routes) in currently undeveloped areas within the Leisure Tourism / Amenity zone which is in proximity to Natura 2000 designated sites. Proposals should utilise existing servicing infrastructure.

HB 5

Support the provision of low intensity green infrastructure which will be accessible by all users.

HB 6

Require all new permanent facilities to be designed to high architectural standards, and to visually complement the area.

Consideration has also been given to **Green Belt Areas** which emphasises that the Council will seek to conserve the nature conservation value of the Lough Ree proposed Natural Heritage Area (NHA) and Special Area of Conservation (SAC) as well as other environmentally sensitive areas. The Council recognises the importance of the Shannon as an environmental and tourism resource of national significance and the importance of the waterway and the Callows as habitats for a rich variety of flora and fauna. Development proposals in close proximity to the River Shannon must therefore be in accordance with the appropriate sustainable development of the area. Green belt zoning is generally applied to specific zones to protect the setting, character and environmental quality of these areas of high natural beauty and safeguard their environmental, archaeological and ecological amenities. In this respect, the following policy objectives are provided:

HB 7

Protect the existing Natura 2000 sites and pNHAs and any sites which become designated and notified to Roscommon County Council during the lifetime of this Plan.

HB 8

Maintain greenbelt lands as a visual and environmental buffer to preserve the natural amenity of the area such as alongside waterways, rivers and floodplains.

HB 9

Protect greenbelt lands from inappropriate developments which would give rise to an adverse impact upon the receiving environment and/or undermine the biodiversity/landscape or amenity value of the area.

HB 10

Ensure the protection of lands liable to flooding from development which would give rise to adverse impacts upon the receiving environment.

The greenbelt and the leisure / tourism amenity areas within Hodson Bay are illustrated in the figure below.

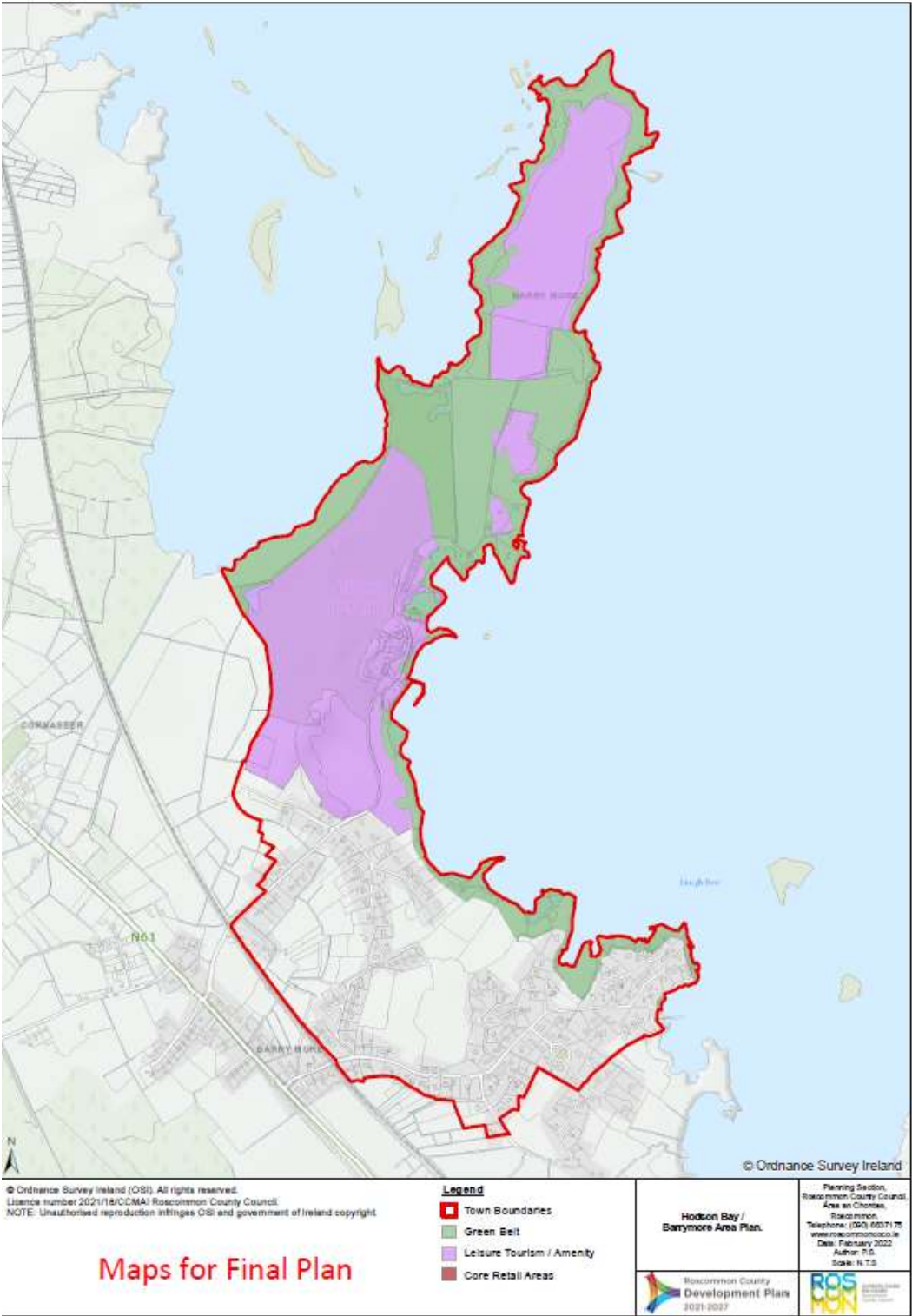


Figure 22 Green Belt and Leisure Tourism Amenity Areas within Hodson Bay (Source: Roscommon County Development Plan Volume 2)

APPENDIX 02: ENVIRONMENTAL CONSTRAINTS AND MAPPING

Site Topography

While there are some local undulations, the overall topography within the site boundary is flat. Levels range from 34m Ordnance Datum (OD) along the lake shores to 52m OD at the clubhouse of the Athlone Golf Club. Due to the abundant tree coverage along the lake shores, the local undulations at the centre of the study area are imperceptible in views from the lake. The peninsula seems to spread out at one level with the only changes in height created by the different heights of the trees along the shore.

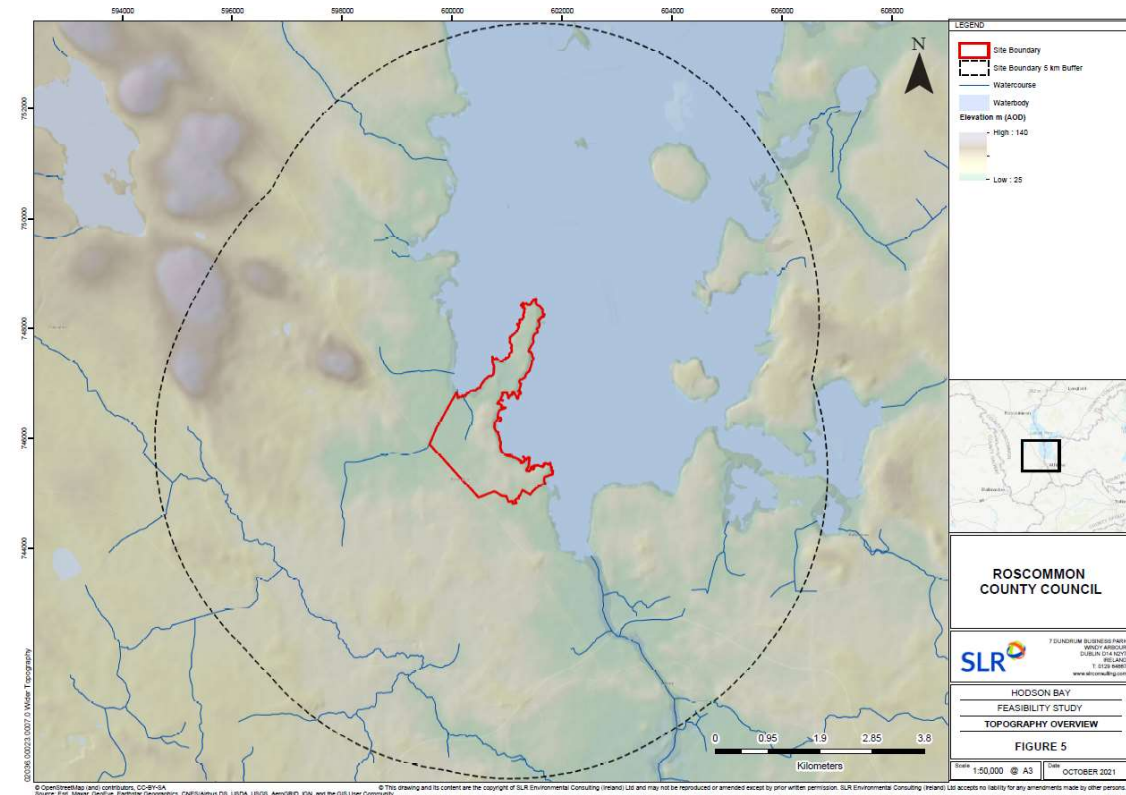


Figure 23 Topography Overview

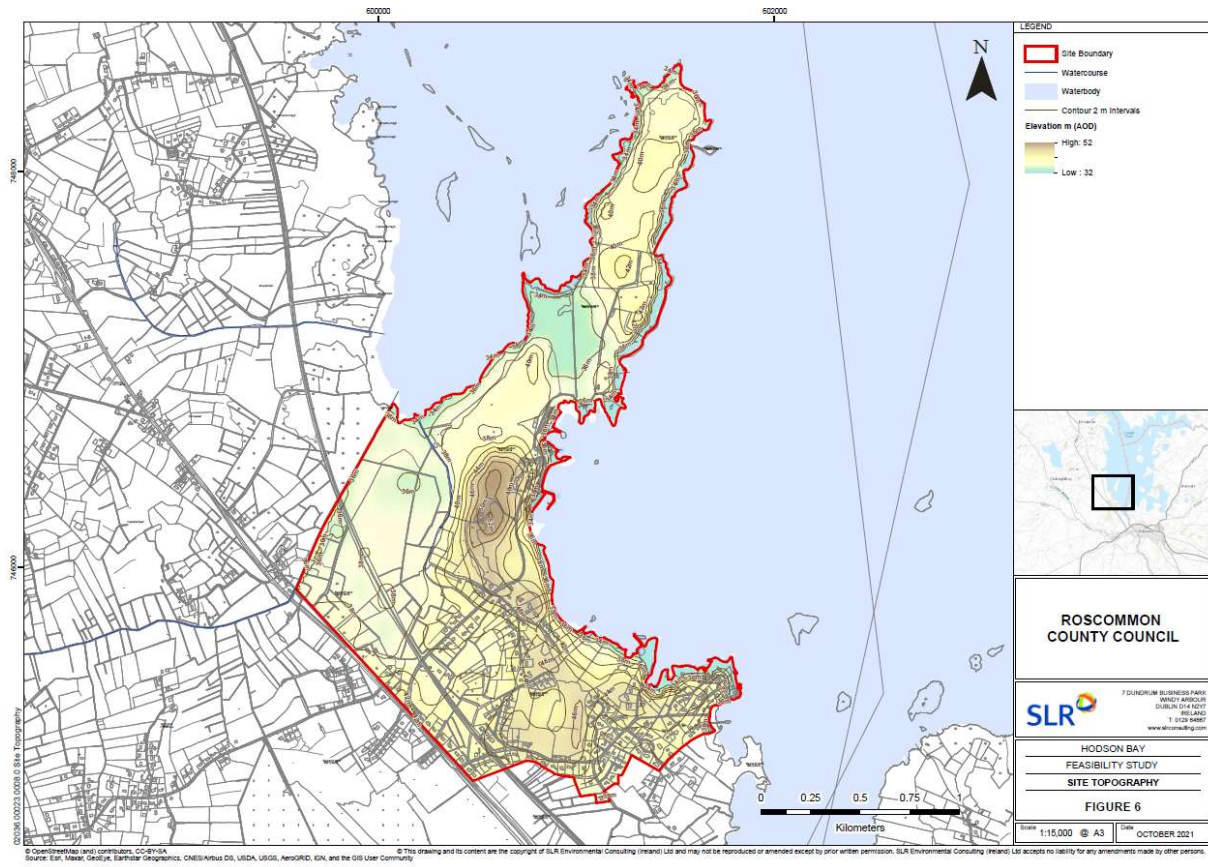


Figure 24 Site Topography

Landscape Character

A Landscape Character Assessment of County Roscommon, dated May 2014, forms part of the Roscommon County Development Plan 2014-2020. The county has been divided into 36 Landscape Character Areas (LCA), each of which has been classified into one of four value classes. The application area is fully located within LCA 8 – Lower Lough Ree and Athlone Environs, which has been afforded very high value.

The following objectives of relevance to this study are included in section 7.6 of the current RCDP.

Objective 7.37 “Seek to minimize visual impacts on areas categorized within the Co. Roscommon Landscape Character Assessment including “moderate value”, “high value”, “very high value” and with special emphasis on areas classified as “exceptional value” and where deemed necessary, require the use of visual impact assessment where proposed development may have significant effect on such designated areas.”

Objective 7.40 “Seek to protect important views and prospects in the rural landscape and visual linkage between established landmarks, landscape features and views in urban areas.

The policy objectives included in section 10.13 of the Draft RCDP 2021-2027, ‘Landscape Character’, are almost identical to the above.

It should be noted that none of the Scenic Routes and Scenic Views, listed in Appendix 1 of the Landscape Character Assessment of County Roscommon are located in the vicinity of or are directed at the proposed study area. This is also the case for those listed in the Landscape Character Assessment, which was updated as part of the Draft RCDP 2021-2027.

The description of the key characteristics of LCA 8 includes the following of relevance to this study:

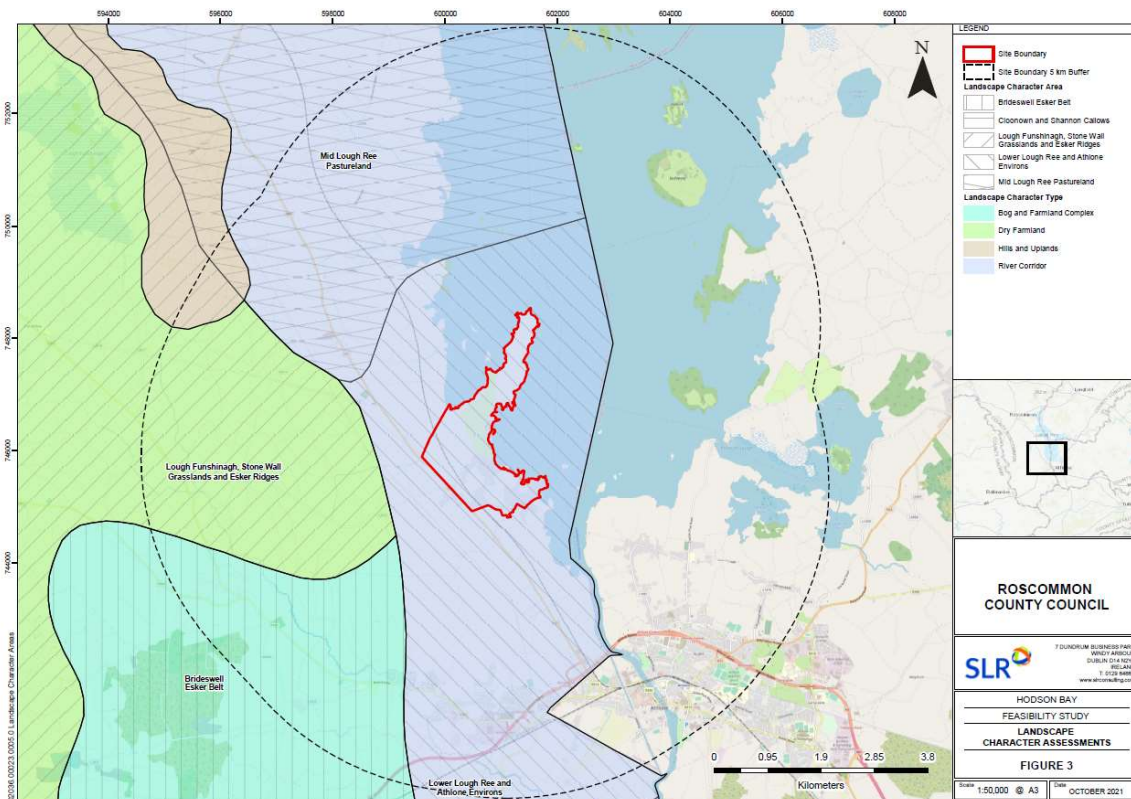
"The Lower Lough Ree and Athlone Environs character area stretches southwards from Hodson Bay to the north of the village of Cornafulla. The western boundary is delineated by the zone of visibility from the River Shannon. This **low lying area is predominantly made up of dry grassland and raised bog**, most of which is reclaimed, as well as smaller pockets of wet grassland and wetland. ...

Two esker ridges run through the area, one running in a northerly direction towards the Hodson's Bay peninsula, the other running in a westerly direction from just outside of Athlone Town, part of which is currently a mineral extraction site. The former esker remains in a very intact form whereas the latter has been substantially altered due to encroachment of development. The overall image of the Lower Lough Ree and Athlone Environs character area is of a **peri-urban lakeshore area experiencing increasing development pressure.**"

The description of the Forces of Change for LCA 8 includes the following:

"Development pressure is evident along the shores of Lough Ree north and south of Athlone town along the Shannon Callows, as well as along the small roads leading into the Callows. This is of concern not least because of the potential negative impact on the ecology of the flood plain, but also because of the negative impact such development will have on the **visual amenity** on the Shannon river corridor."

In light of the very high value placed on LCA 8, as well as the recognised negative impact on the visual amenity of the river corridor from development, it should be ensured that **any buildings proposed within the site boundaries are fully screened in views from Lough Ree. In order to achieve this, screening provided by the abundant tree vegetation along the lake shores should be utilised. Building heights should not exceed the height of adjoining trees. As a rough guide, it is expected that a building height below 10m will ensure that structures are screened. However, this needs to be assessed on a site by site basis, as it may be necessary to restrict heights further in some locations. Similarly, slightly higher structures may be possible in some locations.**



Biodiversity

This section outlines the likely ecological constraints present at the proposed site, and their impact on the feasibility of the proposed development(s).

This was prepared by Sinéad Clifford and reviewed by Richard Arnold. Sinéad is Senior Ecologist with SLR. Sinéad holds a BSc (Hons) in Wildlife Biology from Institute of Technology Tralee, and a Certificate in Ecological Consultancy (Distinction) from Ecology Training UK (formerly Acorn Ecology). Sinéad has worked in ecological consultancy since 2018. Sinéad's specialist areas are in bat ecology, mammal survey, Geographical Information Systems (GIS), habitat survey, mapping and classification. She also has an excellent understanding and experience in invasive species surveys. Sinéad has prepared ecological reports for a wide range of diverse projects during her career.

Richard Arnold BSc (Hons) MRes MCIEEM CEnv is a Technical Director with SLR. Richard has a BSc (Hons) in Ecology, an MRes in Environmental Science, is a full member of CIEEM and a Chartered Environmentalist. Richard has 23 years of experience as a consultant ecologist, including projects of all sizes and stages of development in the UK and Ireland.

Relevant Legislation and Policy relating to Habitats and Species

- European Union Habitats Directive, (1992). Council Directives 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
- European Union Birds Directive (2009) Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version).
- European Communities (Birds and Natural Habitats) Regulations, 2011, as amended.
- Wildlife Act, 1976, as amended
- Wildlife (Amendment) Act, 2000, 2010, 2012
- Flora (Protection) Order 2015
- Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species, as amended, together with Commission Implementing Regulation (EU) 2016/1141 and Implementing Regulation (EU) 2019/1262
- The Heritage Act 2018

Water

- European Communities (Water policy) Regulations, 2003, as amended
- European Communities Environmental Objectives (Surface Waters) Regulations 2009

Environmental Liabilities

- European Communities (Environmental Liability) Regulations 2008

Relevant Policies

- Section 5 of RSES for the Northern and Western Region 2020 -2032¹²
- Roscommon County Development Plan 2014 – 2020 (Chapter 7)¹³

¹² <https://www.nwra.ie/rses/>

¹³ http://www.roscommoncoco.ie/en/Services/Planning/Roscommon-County-Council-Planning-Publications/Roscommon-County-Council-Planning-Publications/County_Development_Plan_2014_-_2020/Variations-No-1-Plans/1f-Chapters-6-8.pdf

- Draft Roscommon County Development Plan 2021 – 2027¹⁴

Methodology - Desk Study

SLR carried out a desk study to inform the biodiversity input to the feasibility assessment for the proposed Hodson Bay Preferred Options Study. The desk study involved using online resources to collate information on areas designated for nature conservation and previous ecological studies undertaken for other projects in the wider local area.

The following online and other resources were accessed as part of the desk study, searching for all relevant records up to 15km radius of the site boundary:

- Satellite imagery¹⁵
- Environmental Protection Agency (EPA) Maps¹⁶ were accessed for other environmental information relevant to the preparation of this report.
- Design drawings and the project description of the proposed facility expansion prepared by Roscommon County Council.
- National Parks and Wildlife Service¹⁷ and the National Biodiversity Data Centre (NBDC)¹⁸ online resources were accessed for information on sites designated for nature conservation and information on protected habitats and species. Only records of protected species for the past 10 years are considered within this report as older records are unlikely to still be relevant given their age and the changes in land management that are likely to have occurred in the intervening period. Environmental Protection Agency (EPA) Maps were accessed for other environmental information, such as surface water features, relevant to the preparation of this report. A data request was sent to NPWS on 22nd December 2021, and the results were received on 11th January 2022.
- Roscommon County Council planning portal¹⁹ and myplan.ie²⁰ were accessed for information on other permitted or proposed projects and plans within 15km, including associated environmental and ecological assessments.
- The BirdWatch Ireland website²¹ was accessed for information on birds of conservation concern from the last 10 years. Birds of Conservation Concern in Ireland (BoCCI), published by BirdWatch Ireland and the RSPB NI, is a list of priority bird species for conservation action on the island of Ireland. The BoCCI lists birds that breed and/or winter in Ireland and classifies them into three separate lists; Red, Amber and Green; based on the conservation status of the bird and hence their conservation priority. Birds on the Red List are those of highest conservation concern, Amber List are of medium conservation concern and Green List are not considered threatened. Whilst all bird species are protected under the Wildlife Acts 1976 – 2018, only records of species that are Red or Amber-listed on BoCCI or listed on Annex 1 of the Birds Directive were sought.
- Records of protected flora and fauna within 2km were sought from records held by the NBDC.

Field Survey

A site visit of the proposed site was carried out on 09th August 2021. This was a high-level walkover of the site to gauge the types of habitats present and to identify any major constraints.

¹⁴ <https://www.rosdevplan.ie/stage-2-draft/stage-2-public-display-of-draft-plan/>

¹⁵ <https://www.google.ie/maps> (last accessed 21st December 2021)

¹⁶ <http://gis.epa.ie/> (last accessed 21st December 2021)

¹⁷ <https://www.npws.ie/> (last accessed 21st December 2021)

¹⁸ <https://maps.biodiversityireland.ie/> (last accessed 21st December 2021)

¹⁹ <https://www.eplanning.ie/RoscommonCC/SearchExact> (last accessed 21st December 2021)

²⁰ <https://myplan.ie/> (last accessed 21st December 2021)

²¹ <https://birdwatchireland.ie/> (last accessed 21st December 2021)

Limitations

Desk Study

Desk study data is unlikely to be exhaustive, especially in respect of species, and is intended mainly to set a context for the study. It is therefore possible that important habitats or protected species not identified during the data search do in fact occur within the vicinity of the site. Interpretation of maps and aerial photography has been conducted in good faith, using recent imagery, but it has not been possible to verify the accuracy of any statements relating to land use and habitat context outside of the field study area.

Field Survey(s)

No surveys were undertaken to inform this report. The site visit was high-level in nature, and did not assess habitats and species in detail. As such, it should not be considered in lieu of targeted, detailed ecological surveys.

Baseline Ecological Conditions

This section sets out the baseline conditions for the ecological features considered within the proposed project site using the findings of the desk study.

Designated Sites

Natura 2000 Sites

There are 16 Natura 2000 sites within 15km. The proposed site is located within and adjacent to Lough Ree SAC and Lough Ree SPA.

Lough Ree SAC encompasses the areas along the edge, and an area in the middle of the peninsula (west-east). The SAC is designated for habitats which are likely to be present within and adjacent to the proposed site (see **Habitats** below). Otter *Lutra lutra* is also a qualifying interest for this SAC. There is potential for otter breeding habitat and resting habitat to be present within the proposed site. As such, there is potential for impacts on qualifying interests of Lough Ree SAC as a result of any development within the proposed site.

Lough Ree SPA is designated for a number of bird species, some of which may be using the habitats within the proposed site for foraging and/or nesting. Lough Ree SPA is also designated for Wetland habitats that may be present within the proposed site. Due to the proximity of the SPA to the proposed site, there is potential for impacts on qualifying interest species via noise, visual and physical disturbance, impacts on water quality, and loss of foraging and/or nesting habitat.

There are potential hydrological and ecological connections to Ballynamona Bog and Corkip Lough SAC, Lough Funshinagh SAC, Lough Croan Turlough SAC, and Lough Croan Turlough SPA via Funshionagh groundwater body and migratory and mobile species, especially birds. However, this would require further analysis to confirm if this is the case.

There is also a potential hydrological and ecological connection to Middle Shannon Callows SPA, River Shannon Callows SAC, Crosswood Bog SAC, and Carn Park Bog SAC via the River Shannon and migratory and mobile species, especially birds.

There is a lack of hydrological or ecological connection between the proposed site and Pilgrim's Road Esker SAC, Killeglan Grassland SAC, Mongan Bog SAC, Mongan Bog SPA, Fortwilliam Turlough SAC, and Castlesampson Esker SAC. Of these, Mongan Bog SPA is the only site designated for mobile species (i.e. Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]). However, this site is situated ca. 13.71km from the proposed site. The proposed site is therefore outside of the core range of 5-8km for this species when it is using Mongan Bog SPA. Moreover, GWFG has not made use of the Mongan Bog SPA since the 1990s, with this population now associated more closely with the River Suck SPA.

Natura 2000 sites within 15km of the proposed site are presented in Table 13.

Designated sites within 15km of the proposed site are presented in Figure 25 and Figure 26 below.

Table 13 Natura 2000 sites within 15km

Site	Site Code	Qualifying Interest(s)	Distance from Proposed Project Site (km)	Potential Hydrological or Ecological Connection (Yes/No)
Lough Ree SPA	004064	<p>Little Grebe (<i>Tachybaptus ruficollis</i>) [A004]</p> <p>Whooper Swan (<i>Cygnus cygnus</i>) [A038]</p> <p>Wigeon (<i>Anas penelope</i>) [A050]</p> <p>Teal (<i>Anas crecca</i>) [A052]</p> <p>Mallard (<i>Anas platyrhynchos</i>) [A053]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Tufted Duck (<i>Aythya fuligula</i>) [A061]</p> <p>Common Scoter (<i>Melanitta nigra</i>) [A065]</p> <p>Goldeneye (<i>Bucephala clangula</i>) [A067]</p> <p>Coot (<i>Fulica atra</i>) [A125]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Lapwing (<i>Vanellus vanellus</i>) [A142]</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193]</p> <p>Wetland and Waterbirds [A999]</p>	0	Yes. This SPA is both within and adjacent to the proposed site.
Lough Ree SAC	000440	<p>Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> - type vegetation [3150]</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (*important orchid sites) [6210]</p> <p>Active raised bogs [7110]</p> <p>Degraded raised bogs still capable of natural regeneration [7120]</p> <p>Alkaline fens [7230]</p> <p>Limestone pavements [8240]</p> <p>Bog woodland [91D0]</p>	0	Yes. This SAC is both within and adjacent to the proposed site.

Site	Site Code	Qualifying Interest(s)	Distance from Proposed Project Site (km)	Potential Hydrological or Ecological Connection (Yes/No)
		Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0] <i>Lutra lutra</i> (Otter) [1355]		
Middle Shannon Callows SPA	004096	Whooper Swan (<i>Cygnus cygnus</i>) [A038] Wigeon (<i>Anas penelope</i>) [A050] Corncrake (<i>Crex crex</i>) [A122] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Lapwing (<i>Vanellus vanellus</i>) [A142] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Wetland and Waterbirds [A999]	4.37	Yes. There is a hydrological connection between this SPA and the proposed site via River Shannon. There is also potential for SCI to use habitats within the proposed site.
River Shannon Callows SAC	000216	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410] Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>) [6510] Alkaline fens [7230] Limestone pavements [8240] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0] <i>Lutra lutra</i> (Otter) [1355]	4.37	Yes. There is a hydrological connection between this SAC and the proposed site via River Shannon.
Ballynamona Bog and Corkip Lough SAC	002339	Turloughs [3180] Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the <i>Rhynchosporion</i> [7150] Bog woodland [91D0]	5.71	Potential hydrological connection via groundwater
Lough Funshinagh SAC	000611	Turloughs [3180]	6.49	Potential hydrological connection via groundwater

Site	Site Code	Qualifying Interest(s)	Distance from Proposed Project Site (km)	Potential Hydrological or Ecological Connection (Yes/No)
		Rivers with muddy banks with <i>Chenopodium rubri p.p.</i> and <i>Bidenton p.p.</i> vegetation [3270]		
Castlesampson Esker SAC	001625	Turloughs [3180] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210]	6.99	No.
Crosswood Bog SAC	002337	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120]	7.53	Potential hydrological connection via Cloonbonny river
Carn Park Bog SAC	002336	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120]	9.17	Potential hydrological connection via Tullycross river
Lough Croan Turlough SAC	000610	Turloughs [3180]	10.94	Potential hydrological connection via groundwater
Lough Croan Turlough SPA	004139	Shoveler (<i>Anas clypeata</i>) [A056] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395] Wetland and Waterbirds [A999]	11.04	Potential hydrological connection via groundwater and bird migration.
Pilgrim's Road Esker SAC	001776	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210]	13.30	No.
Killeglan Grassland SAC	002214	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210]	13.53	No.
Mongan Bog SAC	000580	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the <i>Rhynchosporion</i> [7150]	13.56	No.
Mongan Bog SPA	004017	Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]	13.71	No. The proposed site is outside the core range for this species (i.e. 5-8km), were it to resume use of Mongan Bog SPA.
Fortwilliam Turlough SAC	000448	Turloughs [3180]	14.16	No.

Nationally Designated Sites

The proposed site is situated within and immediately adjacent to Lough Ree pNHA. Due to the proximity and overlap with this pNHA, there is potential for impacts to this pNHA. No site synopsis is available for this site. However, its boundary coincides with that of Lough Ree SAC and Lough Ree SPA. As such, its European designated and qualifying interests supersede its national designation as there is no site synopses available.

There is hydrological connectivity between the proposed site and the River Shannon Callows pNHA, Carrickynaghtan Bog NHA, Crosswood Bog pNHA, and Carn Park Bog pNHA via the River Shannon and its tributaries. As such, there is potential for impacts to these sites and their qualifying interests.

There is potential connectivity between the proposed site and Lough Funshinagh pNHA and Lough Croan Turlough pNHA via groundwater and ecological connectivity for mobile species. However, a detailed assessment would be required to confirm if this is the case.

There is potential for ecological or hydrological connectivity between the proposed site and Castlesampson Esker pNHA, Derry Lough pNHA, Fortwilliam Turlough pNHA, Cranberry Lough pNHA, Clonydonnin Bog NHA, Cordara Turlough pNHA, and Royal Canal pNHA. However, a detailed assessment would be required to confirm if this is the case.

Nationally designated sites within 15km are presented in Table 14.

Table 14 Nationally designated sites within 15km

Site	Site Code	Qualifying Interests	Distance from Proposed Project Site (km)	Potential Hydrological or Ecological Connectivity (Yes/No)
Lough Ree pNHA	000440	Site Synopsis not available. Coincides with Lough Ree SAC and Lough Ree SPA.	0.00	Yes, this pNHA overlaps with and is adjacent to the proposed site.
River Shannon Callows pNHA	000216	Site Synopsis not available. Coincides with River Shannon Callows SAC.	4.38	Yes. There is a hydrological connection between this pNHA and the proposed site via River Shannon.
Carrickynaghtan Bog NHA	001623	Peatlands [4]	6.27	Yes. There is a hydrological connection via EPA stream IE_SH_26S021800 which flows into River Shannon.
Lough Funshinagh pNHA	000611	Site Synopses not available. Coincides with Lough Funshinagh SAC.	6.50	Potential hydrological connection via groundwater
Castlesampson Esker pNHA	001625	Site Synopses not available. Coincides with Castlesampson Esker SAC.	6.65	No.
Crosswood Bog pNHA	000678	Site Synopses not available. Coincides with Crosswood Bog SAC.	7.53	Potential hydrological connection via Cloonbonny river.
Waterstown Lake pNHA	001732	Active peat formation Extensive calcium-rich fen and species-rich reed-bed areas Calcareous marshes Wet woodlands	7.75	No
Lough Slawn pNHA	001443	Calcareous-rich habitats with interesting flora.	9.02	No.

Site	Site Code	Qualifying Interests	Distance from Proposed Project Site (km)	Potential Hydrological or Ecological Connectivity (Yes/No)
Feacle Turlough pNHA	001634	Northern Yellow-cress (<i>Rorippa islandica</i>) Fat Duckweed	9.11	No.
Carn Park Bog pNHA	000676	Site Synopses not available. Coincides with Carn Park Bog SAC.	9.19	Potential hydrological connection via Tullycross river
Forthill Bog NHA	001448	Peatlands [4]	10.82	No.
Lough Croan Turlough pNHA	000610	Site Synopses not available. Coincides with Lough Croan Turlough SAC and Lough Croan Turlough SPA.	10.94	Potential hydrological connection via groundwater. Potential ecological connectivity.
Pilgrim's Road Esker pNHA	001776	Site Synopses not available. Coincides with Crosswood Bog SAC.	13.30	No.
Mongan Bog pNHA	000580	Site Synopses not available. Coincides with Mongan Bog SAC.	13.56	No.
Derry Lough pNHA	001444	Wet grassland, fen Fen woodland Water Dock (<i>Rumex hydrolapathum</i>),	13.66	No.
Fortwilliam Turlough pNHA	000448	Site Synopses not available. Coincides with Fortwilliam Turlough SAC.	14.16	No.
Cranberry Lough pNHA	001630	Botanically rich lake occupying a low-lying area within a raised bog Extensive reed-beds Whooper Swan	14.51	No.
Clonydonnin Bog NHA	000565	Peatlands [4]	14.72	No.
Cordara Turlough pNHA	001821	Large numbers of wildfowl and waters that the area can support when wet. It also is of interest as an example of a rare habitat type, turloughs, outside their main region of distribution of the limestone areas west of the Shannon.	14.73	No.
Royal Canal pNHA	002103	Diversity of flora, including rarer species. Otter	14.86	No.



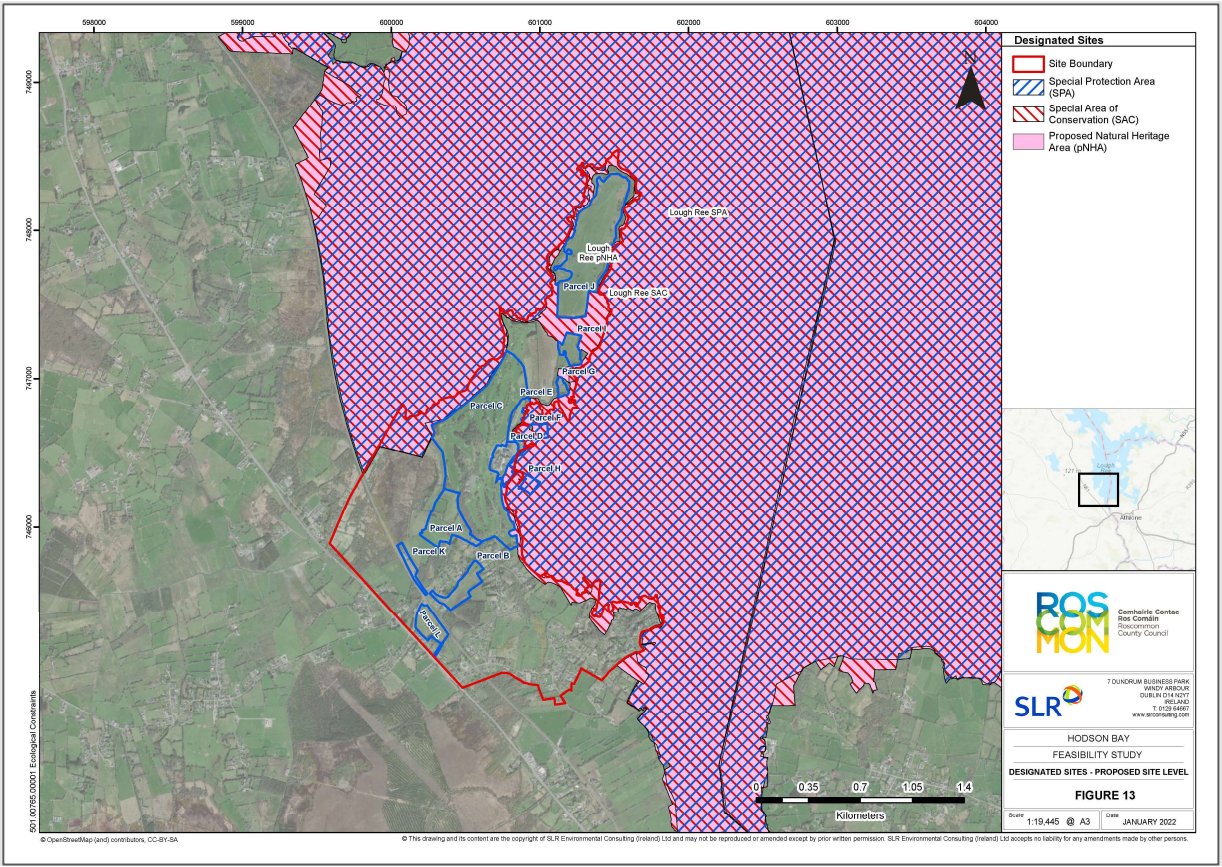


Figure 26 Designated Sites– Site Level

Habitats

Hodson bay comprises both artificial and semi-natural habitats.

Based on a review of aerial imagery, the dominant habitat is improved agricultural grassland. There are also areas of amenity grassland represented by a golf course, landscaping around the hotel and residential properties in the southern section of the proposed site boundary. There are also hedgerows, treelines, and scrub throughout.

There are semi-natural habitats, particularly along the shoreline, and the middle of the proposed site boundary that coincides with the boundary of Lough Ree SAC. As such, there is potential for Annex I habitats to be present.

Data received from NPWS data request confirms there is an area of the Annex I habitat 'Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometea*) (*important orchid sites)' (EU Code 6210) on the eastern boundary of Hodson Bay. The data also confirms that Lough Ree represents the Annex I habitat 'Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation' (EU Code 3150).

Some areas of woodland within the peninsula were included in the 2005 National Survey of Native Woodlands 2010. There is an area of bog woodland at the centre of the peninsula comprising *Betula pubescens* - *Molinia caerulea* woodland group, *Salix cinerea* - *Galium palustre* vegetation type. There are areas of oak-ash-hazel woodland along the northern end of the peninsula comprising *Fraxinus excelsior* - *Hedera helix* woodland group, *Corylus avellana* - *Oxalis acetosella* vegetation type. There is also an area of mixed broadleaved/conifer woodland on the north-eastern periphery comprised of *Fraxinus excelsior* - *Hedera helix* woodland group, *Corylus avellana* - *Oxalis acetosella* vegetation type.

There are other areas along the peninsula which have not been surveyed but have potential for Annex I habitat types. The peninsula is within the current distribution for the following Annex I habitats:

- 7150 Depressions on peat substrates of the *Rhynchosporion*
- 7220 Petrifying springs with tufa formation (*Cratoneurion*)
- 7230 Alkaline fens
- 7210 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*
- 7120 Degraded raised bogs still capable of natural regeneration
- 7110 Active raised bogs
- 4030 European dry heaths

Considering this, there is potential for works to impact Annex I habitats

The adjacent Lough Ree is a mesotrophic to the moderate-eutrophic lake. This aquatic habitat is of ecological significance owing to the diversity of species it supports and dependent habitats. Considering the proximity of the proposed site to Lough Ree, there is potential for water-quality impacts.

Plants

Six records (three species) of rare and protected flora were yielded for Hodson Bay from the NPWS data request. These are presented in Table 15 below.

Table 15 Rare and protected flora in Hodson Bay (NPWS, 2022)

Species		Date of Record	Designation/Status	Grid Square
Marsh Fern	<i>Thelypteris palustris</i>	2004	Near Threatened	N012472
Narrow-leaved Helleborine	<i>Cephalanthera longifolia</i>	2010	Flora Protection Order, 2015	N010467

Species		Date of Record	Designation/Status	Grid Square
			Vulnerable	
Narrow-leaved Helleborine	<i>Cephalanthera longifolia</i>	2005	Flora Protection Order, 2015 Vulnerable	N010424
Narrow-leaved Helleborine	<i>Cephalanthera longifolia</i>	2005	Flora Protection Order, 2015 Vulnerable	N015448
Narrow-leaved Helleborine	<i>Cephalanthera longifolia</i>	1974	Flora Protection Order, 2015 Vulnerable	N0148
Fragrant Agrimony	<i>Agrimonia procera</i>	2004	Near Threatened	N0147

Invertebrates

No records of protected invertebrates were yielded from the data search. One record of an endangered species, Glutinous Snail *Myxas glutinosa*, was yielded. This is presented in Table 16 below.

Table 16 Records of Invertebrate species (NBDC, 2022)

Species		Date of Record	Designation	Grid Square
Glutinous Snail	<i>Myxas glutinosa</i>	31/07/2004	Endangered	N04D

While no records were yielded from the desk study, Hodson Bay is within the current distribution for Marsh Fritillary *Euphydryas aurinia* and Desmoulins Snail *Vertigo moulinsiana*. Both species are protected under Annex II of the Habitats Directive. As such, there may be potential for these species to be present within the proposed site.

Amphibians

One record of a protected species of amphibian was yielded from the data search, namely smooth newt. No records of common frog were yielded from the data search, but there is suitable habitat for the species within the site. As such, they are likely to be present.

Table 17 Records of Amphibian species (NBDC, 2022)

Species		Date of Record	Designation	Grid Square
Smooth Newt	<i>Lissotriton vulgaris</i>	24/09/2013	Wildlife Act, 1976 (as amended)	N04D

Reptiles

No records of common lizard *Zootoca vivipara* were yielded from the data search. However, there may be suitable habitats present which would support the common lizard.

Birds

Lough Ree SPA is immediately adjacent to the proposed site. There is suitable foraging and nesting habitat present with the proposed site for some of the species for which the site is designated.

Records of bird species yielded from the data search are presented below in Table 18 - Table 21.

Table 18 Records of Bird species (NBDC, 2022)

Species		Date of Record	Designation	Conservation Status
Barn Swallow	<i>Hirundo rustica</i>	31/12/2011	Wildlife Act, 1976 (as amended)	Amber Listed
Black-headed Gull	<i>Larus ridibundus</i>	02/02/2015	Wildlife Act, 1976 (as amended)	Red Listed
Common Coot*	<i>Fulica atra</i>	02/02/2015	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II, Annex III	Amber Listed
Common Linnet	<i>Carduelis cannabina</i>	31/12/2011	Wildlife Act, 1976 (as amended)	Amber Listed
Common Starling	<i>Sturnus vulgaris</i>	31/12/2011	Wildlife Act, 1976 (as amended)	Amber Listed
Common Swift	<i>Apus apus</i>	31/12/2011	Wildlife Act, 1976 (as amended)	Amber Listed
Great Crested Grebe	<i>Podiceps cristatus</i>	31/12/2011	Wildlife Act, 1976 (as amended)	Amber Listed
Little Grebe*	<i>Tachybaptus ruficollis</i>	02/02/2015	Wildlife Act, 1976 (as amended)	Amber Listed
Mute Swan	<i>Cygnus olor</i>	11/07/2017	Wildlife Act, 1976 (as amended)	Amber Listed
Sand Martin	<i>Riparia riparia</i>	31/12/2011	Wildlife Act, 1976 (as amended)	Amber Listed

*Species of Conservation Interest (SCI) for Lough Ree SPA

Table 19 Records of Protected Bird Species (NPWS, 2022)

Species		Date of Record	Designation	Conservation Status
Black-headed Gull	Chroicocephalus ridibundus	2004, 2007	Wildlife Act, 1976 (as amended)	Red Listed
Common Gull	Larus canus	2007	Wildlife Act, 1976 (as amended) Annex II of the EU Birds Directive	Amber listed
Common Sandpiper	Actitis hypoleucos	2006, 2007	Wildlife Act, 1976 (as amended)	Amber Listed
Common Scoter	Melanitta nigra	2004, 2007	EU Birds Directive Annex II, III	Red Listed
Great Crested Grebe	Podiceps cristatus	2004	Wildlife Act, 1976 (as amended)	Amber Listed
Lapwing	Vanellus vanellus	2007	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Red Listed
Lesser Black-backed Gull	Larus fuscus	2004	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Amber Listed
Little Grebe*	Tachybaptus ruficollis	2007	Wildlife Act, 1976 (as amended)	Amber Listed
Mute Swan	Cygnus olor	2006, 2007	Wildlife Act, 1976 (as amended)	Amber Listed
Redshank	Tringa totanus	2007	Wildlife Act, 1976 (as amended)	Amber Listed
Sand Martin	Riparia riparia	2007	Wildlife Act, 1976 (as amended)	Amber Listed
Shelduck	Tadorna tadorna	2007	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Amber Listed
Swallow	Hirundo rustica	2007	Wildlife Act, 1976 (as amended)	Amber Listed
Swift	Apus apus	2007	Wildlife Act, 1976 (as amended)	Red Listed
Tufted Duck*	Aythya fuligula	2005, 2006	Wildlife Act, 1976 (as amended)	Amber Listed

* Species of Conservation Interest (SCI) for Lough Ree SPA

Table 20 IWEBS Records of Protected Bird Species (NPWS, 2022)

Species		Date of Record	Designation	Conservation Status
Black headed gull	<i>Larus ridibundus</i>	1994 - 2001	Wildlife Act, 1976 (as amended)	Red Listed
Common Coot*	<i>Fulica atra</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II, Annex III	Amber Listed
Cormorant	<i>Phalacrocorax carbo</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex I	Amber Listed
Golden plover*	<i>Pluvialis apricaria</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex I	Red Listed
Goldeneye*	<i>Bucephala clangula</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Amber Listed
Grey heron	<i>Ardea cinerea</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex I	Green Listed
Lapwing*	<i>Vanellus vanellus</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Red Listed
Lesser black backed gull	<i>Larus fuscus</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Amber Listed
Mallard *	<i>Anas platyrhynchos</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Green Listed
Mute swan	<i>Cygnus olor</i>	1994 - 2001	Wildlife Act, 1976 (as amended)	Amber Listed
Pochard	<i>Aythya ferina</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II, III	Amber Listed
Shelduck	<i>Tadorna tadorna</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Amber Listed
Teal*	<i>Anas crecca</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Amber Listed
Tufted Duck*	<i>Aythya fuligula</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II, III	Amber Listed
Whooper swan*	<i>Cygnus cygnus</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II	Amber Listed
Wigeon*	<i>Anas penelope</i>	1994 - 2001	Wildlife Act, 1976 (as amended) EU Birds Directive Annex II, III	Red listed

* Species of Conservation Interest (SCI) for Lough Ree SPA

Table 21 IWEBS Data for Lough Ree 2008/2009-2017/2018 (Birdwatch Ireland, 2022)

SPECIES	1% NATIO NAL	1% INTERNATI ONAL	2008 /09	2009 /10	2010 /11	2011 /12	2012 /13	2013 /14	2014 /15	2015 /16	2016 /17	2017 /18	ME AN
Bewick's Swan	20	220									2		1
Black-headed Gull					122					32*	315		105
Common Gull					5				2*				0
Coot**	190	15500			524					560*	297		99
Cormorant	110	1200			29					2*	12		4
Curlew	350	7600			89					30*	10		3
Dunlin	460	13300									3		1
Egyptian Goose											1		0
Feral/hybrid Mallard type					2								0
Golden Plover**	920	9300			205					2050*	3380		1127
Goldeneye**	40	11400			12					25*	23		8
Great Crested Grebe	30	6300			16					11*	7		2
Grey Heron	25	5000			4					1*	3		1
Herring Gull											3		1
Kingfisher										1*	1		0
Lapwing**	850	72300			1443					1150*	1823		608
Lesser Black-backed Gull					3					2*	1		0
Little Egret	20	1100								3*	3		1
Little Grebe**	20	4700			19					20*	27		9
Mallard*	280	53000			252				4*	275*	87		29
Moorhen					25				1*	1*	3		1
Mute Swan	90	100			70				2*	58*	168		56
Pochard	110	2000			40					1*	3		1

SPECIES	1% NATIO NAL	1% INTERNATI ONAL	2008 /09	2009 /10	2010 /11	2011 /12	2012 /13	2013 /14	2014 /15	2015 /16	2016 /17	2017 /18	ME AN
Shoveler**	20	650									2		1
Snipe					3					4*	4		1
Teal**	360	5000			231					61*	73		24
Tufted Duck**	270	8900			760					192*	108		36
Unidentified Duck					91								0
Whooper Swan**	150	340			99					21*	11		4
Wigeon*	560	14000			749						50		17

Peak counts for each species in each of the most recent 10 seasons are presented above in Table 21.

Please note:

The mean is based only on the most recent 5-season period, i.e. for the period **2013/14 - 2017/18**.

Blank columns indicate seasons when no counts were carried out, while blank cells show that a species was absent.

*Counts that are poor quality

**Species of Conservation Interest (SCI) for Lough Ree

Counts of National Importance are highlighted

A total of 40 bird species were yielded from the data search. Of these, 11 are species of conservation interest (SCI) for Lough Ree SPA.

Six species were recorded in Lough Ree in nationally important numbers, namely Coot, Golden Plover, Lapwing, Little Grebe, Tufted Duck, and Wigeon all of which are SCI for Lough Ree SPA (Table 21).

Five recorded species are assessed as being of moderate sensitivity to noise disturbance, namely mallard, golden plover, lapwing, and curlew. One species (shelduck) is assessed as being of high sensitivity to noise disturbance. In order to determine if these species will be impacted by development within the proposed site, a minimum of two complete years of surveys should be carried out including two visits in each season (breeding and wintering). Noise modeling shall be carried out based on the findings of these surveys to determine the degree of impact, if any (IECS, 2013)

Bats

No records of bats were yielded from the data search. However, there is ample suitable roosting, commuting and foraging habitat within the proposed site. As such, bats are likely to be using the site. Bat species are protected under Wildlife Act, 1976 (as amended), and Annex IV of the Habitats Directive. It is an offence to intentionally disturb, injure or kill a bat or disturb its resting place and any work on a roost must be carried out with the advice of NPWS.

The bat landscape suitability (Lundy et al., 2011) index spans from 0 to 100, with 0 indicating landscapes considered least favourable for bats and 100 indicating landscapes considered most favourable for bats, in terms of habitats present. The suitability index for the proposed project site is presented below (Table 22) for all bat species, as well as individual species. Overall, the proposed project site is of medium-high suitability for bat species. This is primarily based on the abundance of hedgerows and treelines. The proximity to Lough Ree also offers foraging habitat for species such as Daubenton's bat which typically forage over waterbodies. There is also connectivity to the wider landscape.

Table 22 Bat Habitat Suitability Index

Common Name	Scientific Name	Suitability Index
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>	5
Whiskered bat	<i>Myotis mystacinus</i>	28
Daubenton's bat	<i>Myotis daubentonii</i>	32
All bat	-	34.56
Brown long-eared	<i>Plecotus auritus</i>	37
Natterer's bat	<i>Myotis nattereri</i>	37
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	40
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	42
Leisler's bat	<i>Nyctalus leisleri</i>	44
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	46

Mammals (other than bats)

Badger

A badger sett was recorded during the site visit. Both badgers and their sets are protected under the provisions of Wildlife Act, 1976 (as amended). Records of mammal species yielded from the data search are presented in Table 23.

Table 23 Records of Mammal species (NBDC, 2022)

Species		Date of Record	Designation	
Badger	<i>Meles meles</i>	31/12/2016	Wildlife Act, 1976 (as amended)	N04D

Otter

Lough Ree SAC is designated for Otter. It is highly likely this species is using Lough Ree and the habitats along the shoreline of the peninsula of Hodson Bay. Works within the proposed site could result in both direct and indirect impacts on this species.

Red Squirrel and Pine Marten

A pine marten was observed within the peninsula on 17th-18th July 2021. The woodland habitats within the proposed site have potential to support both pine marten and red squirrel.

Hedgehog, Irish Hare and Pygmy Shrew

While no records for these species were obtained, there is suitable habitat present and they are likely to be present.

Invasive Species

A single record of a medium-impact invasive species, and two high-impact invasive species were yielded from the data search. No Third-Schedule: Part 1 plant species were yielded from the data search. One Third-Schedule: Part 2a species was yielded, namely American Mink.

Table 24 Records of Invasive species (NBDC, 2022)

Species		Date of Record	Invasiveness	Grid Square
Sycamore	<i>Acer pseudoplatanus</i>	21/06/2005	Medium Impact	N0148, N04D
<i>Hemimysis anomala</i>	<i>Hemimysis anomala</i>	31/12/2010	High Impact	N04D
American Mink	<i>Mustela vison</i>	21/08/2013	High Impact	N04D

Summary of Important Ecological Features and Next Steps

Designated Sites

The proposed site overlaps with and is connected to Natura 2000 sites and nationally designated sites. As such, an assessment must be made of the potential for significant impacts to these sites and their qualifying interests. As such, surveys for the species/habitats of qualifying interest should be carried out on and around the proposed site.

Habitats

In addition to the Annex I habitats yielded from the data search, there is potential for further Annex I habitats to be present within the proposed site. It is strongly recommended that habitat surveys be carried out to classify habitats and determine if they meet the criteria for Annex I habitats.

Plants

A habitat survey (April- September) may identify if there are any rare or protected flora present, in addition to those yielded from the data search.

Invertebrates

A habitat survey would help inform if there is potential for the aforementioned protected invertebrate species to be present. Both Marsh Fritillary and Desmoulins's Snail are dependent on particular habitat types. As such, if these habitats are absent, it is unlikely these species would be present.

Amphibians

Any works should consider the potential for smooth newt and common frog to be present. A survey and appropriate measures to avoid negative impacts on these species.

Reptiles

A habitat survey would identify if there are potential suitable habitats present to support common lizard.

Birds

A total of 40 bird species were yielded from the data search. Of these, 11 are species of conservation interest (SCI) for Lough Ree SPA. Six species were recorded in Lough Ree in nationally important numbers, namely Coot, Golden Plover, Lapwing, Little Grebe, Tufted Duck, and Wigeon all of which are SCI for Lough Ree SPA (Table 21). Five recorded species are assessed as being of moderate sensitivity to noise disturbance, namely mallard, golden plover, lapwing, and curlew. One species (shelduck) is assessed as being of high sensitivity to noise disturbance. As such, there is potential for the Species of Conservation Interest (SCI) for Lough Ree SPA to use the habitats within the proposed site, particularly lapwing, curlew, and golden plover.

In order to determine if these species will be impacted by development within the proposed site, a minimum of one complete year of surveys should be carried out including two visits per month in each season (breeding and wintering). The survey would also include a count of birds on the water in proximity to the site in distance bands; this will help determine if there is potential for significant noise and visual disturbance impacts. It is proposed that the surveys would be carried from late November-early March inclusive at a minimum (i.e. equivalent to 2 visits per month for 4 months) to ensure, as far as possible, that surveys coincide with the time of year when these species are most likely to be found. Noise modelling shall be carried out based on the findings of these surveys to determine the degree of impact, if any (IECS, 2013).

There is also ample nesting habitat within the proposed site for nesting species. As such, any necessary vegetation-clearance and/or tree-felling will need to be carried out outside of the bird-nesting period (the nesting season being 1st March to 31st August). Any lost habitat will need to be compensated for by planting an area equivalent to the amount lost, and with similar species of local provenance.

Five recorded species are assessed as being of moderate sensitivity to noise disturbance, namely mallard, golden plover, lapwing, and curlew. One species (shelduck) is assessed as being of high sensitivity to noise disturbance. In order to determine if these species will be impacted by development within the proposed site, a minimum of one complete year of surveys should be carried out including two visits in each season (breeding and wintering). Noise modelling should be carried out based on the results of these surveys to determine the degree of impact, if any (IECS, 2013).

Bats

It is strongly recommended that bat surveys be carried out to assess the suitability of the habitats for bats, and to determine the bat species present within Hodson Bay.

A preliminary roost assessment would be first carried out in late winter-early Spring (i.e. while vegetation cover is low) to determine the potential for trees and structures within the Site to support roosting bats. Should this survey find there is potential for bats to be roosting within the trees/structures, an emergence/re-entry survey would be carried out (within the period May-September) to confirm its use and value to bat populations.

A transect survey would be carried out within the site to assess how bats are using the habitats, and which areas are of greater value to species. Based on the desk study, the Site is considered to be of moderate value to bat species. As such, it is proposed that one survey per month be carried out April-October, as per published guidance²².

An automated bat survey could also be carried out to compliment these surveys. This would involve deploying static bat detectors at locations around the Site for five consecutive nights per season (i.e. once in spring, summer, and autumn).

The recordings yielded from both the transect and automated bat surveys would be then analysed in Kaleidoscope software to identify the species present, and distribution within the site.

All bat species are protected under Annex IV of the EU Habitats Directive. The domestic legislation that implements this Directive gives strict protection to individual bats and their breeding and resting places. Where trees and structures identified are identified as being potential roosting sites for bats, appropriate avoidance, mitigation and/or enhancement measures will need to be employed to avoid negative impacts on bat populations.

Mammals

A badger sett was recorded within woodland on the peninsula. Badgers and their setts are protected under the Wildlife Act, 1976 (as amended). As such, measures will need to be implemented to avoid or mitigate against any impacts to the species and its sett. It is recommended a species-specific badger survey be carried out to determine the extent of the sett and, thus, the area requiring protection.

Otter is protected under Annex of the EU Habitats Directive. There is a strong likelihood the species is using the habitats along the shoreline of Hodson Bay. It is thus recommended that a species-specific otter survey be carried out to confirm if there is any breeding habitat present and if otters are using these habitats.

Pine marten is present within the peninsula, and there is potential for both red squirrel and pine marten to be using the woodland habitats present. A survey of these areas should be carried out in winter/early-spring for dreys and dens.

Hedgehog, Irish Hare and Pygmy Shrew can be difficult to survey for. However, any works should consider their presence and include appropriate measures to avoid negative impacts on these species.

Invasive Species

An invasive species survey (April-September) would identify the presence of any invasive flora. This can be carried out as part of the habitat survey.

Key Issues

Considering its proximity to Lough Ree SPA and Lough Ree SAC, Hodson Bay is an ecologically sensitive site with the potential to support a number of protected species and habitats. This is potentially a major constraint to any development within the proposed site. Development would only be feasible where it can be demonstrated there

²² Bat Surveys for Professional Ecologists – Good Practice Guidelines. Bat Conservation Trust, 2016.

will be no adverse effect on the integrity of Lough Ree. This will require a very high standard of evidence to demonstrate if this is the case. To be able to fulfil the requirements of the Appropriate Assessment process, it is imperative that sufficient ecological data has been yielded to support the conclusion of those reports (i.e. Stage 1 Screening, and Stage 2 Natura Impact Statement). Without this data, the conclusion of these reports is baseless and open to challenge.

There may be additional constraints to the type, size, and layout of the development, as well as seasonal constraints to its operation.

Mitigation measures to protect Annex I habitats, prevent water pollution and prevent disturbance to birds and otter are almost certain to be required. The areas of the proposed site which are within the boundary of Lough Ree SAC and Lough Ree SPA would need to be excluded from and protected in any development. Use of Lough Ree would need to be extremely limited to avoid direct negative impacts on these Natura 2000 sites.



Woodland

There is an area of long established woodland or ancient woodlands within Yew point along the north and eastern shoreline. There will be a presumption against tree removal within this area.

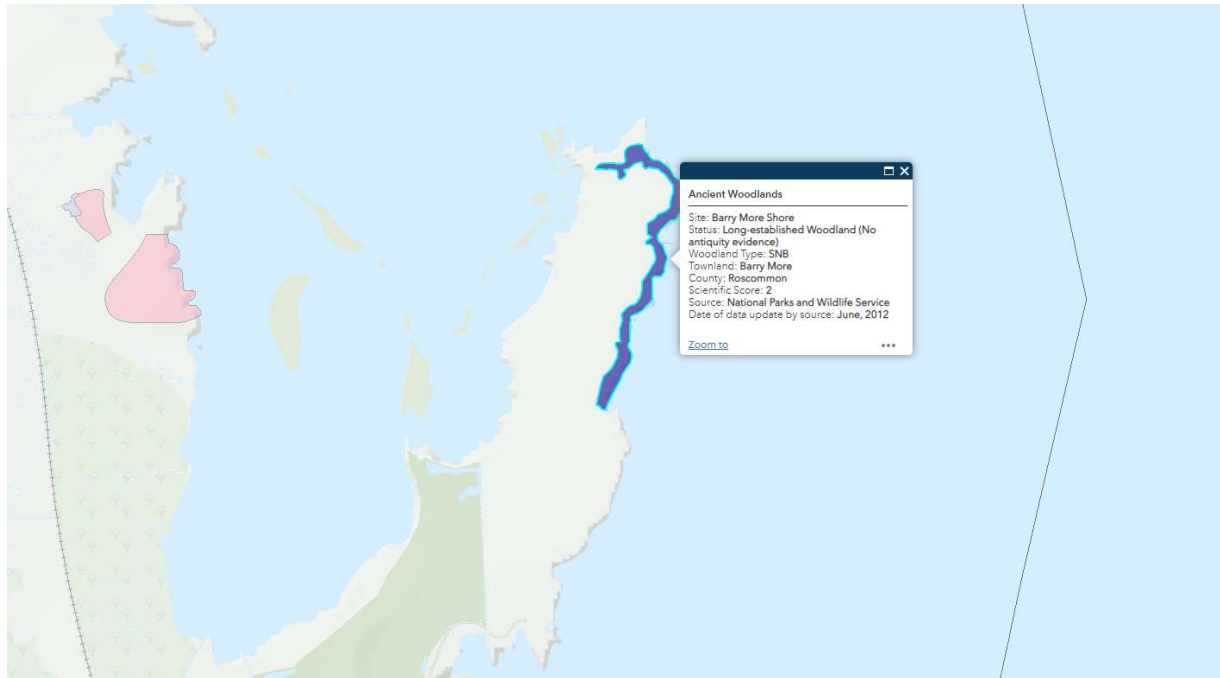


Figure 28 Ancient Woodland (Source: Environmental Sensitivity Mapping / NPWS, 2012)

Flooding

The Office of Public Works (OPW) is the government agency with statutory responsibility for flooding in Ireland, and under the National Catchment Flood Risk Assessment and Management (CFRAM) Study a series of modelled river and coastal flood maps have been produced at the national scale and at the local scale for specific areas, particularly urban areas.

The OPW CFRAM mapping includes present day river and coastal flood extents for a range of modelled Low, Medium and High probability flood events. In addition, a range of future river and coastal flood extents have been modelled based on predicted climate change scenarios.

When considering flooding it is important to understand that flooding is a natural phenomenon which occurs when flows in rivers, or flows into lakes, exceed the channel capacity of the river, or the outflow from the lake; once these flow conditions are met then the excess water will flood onto the floodplain or surrounding lands adjacent to the river and/or lake. This is a natural process.

Planning Guidelines

The Office of Public Works (OPW) and Department of the Environment, Heritage and Local Government (DoEHLG) issued guidelines for planning authorities addressing the management of flood risk in the planning system²³ (hereinafter referred to as the 'Flood Planning Guidelines').

²³ *The Planning System and Flood Risk Management Guidelines for Planning Authorities* (2009): Office of Public Works and the Department of the Environment, Heritage and Local Government.

The flood planning guidelines introduced comprehensive mechanisms for the incorporation of flood risk identification, assessment and management into the planning process. Implementation of the guidelines will be achieved through actions at national, regional, local authority and site-specific levels, depending on the plan or development project being considered.

A sequential approach is adopted in the Flood Planning Guidelines in order to guide development away from areas at risk of flooding. For this purpose the sequential approach identifies and defines three different flood zones (designated Zones A, B and C) in order to guide development at a particular site. The flood zones are:

- Zone A** *High probability of flooding. This zone defines areas with the highest risk of flooding from rivers (i.e. more than 1% probability or more than 1 in 100) and the coast (i.e. more than 0.5% probability or more than 1 in 200).*
- Zone B** *Moderate probability of flooding. This zone defines areas with a moderate risk of flooding from rivers (i.e. 0.1% to 1% probability or between 1 in 100 and 1 in 1000) and the coast (i.e. 0.1% to 0.5% probability or between 1 in 200 and 1 in 1000).*
- Zone C** *Low probability of flooding. This zone defines areas with a low risk of flooding from rivers and the coast (i.e. less than 0.1% probability or less than 1 in 1000).*

The probability of flooding at a particular location (i.e. in a certain flood zone) is presented as an Annual Exceedance Probability (AEP) percentage; Flood Zone A has a High probability of flooding where the AEP is >1% for flooding from rivers.

OPW CFRAM Study Flood Modelling

The OPW CFRAM modelled flood outlines for the shores of Lough Ree at the site were obtained from Roscommon Co. Council for the purpose of this study and are shown in Figure 29 and Figure 30 below.

Present Day Flood Extents

The Present Day Flood Extents for the River Shannon at the site, see Figure 29, are for the modelled medium probability flood extent, the 1% AEP flood outline which equates to Flood Zone A, and the low probability flood extent, the 0.1% AEP flood outline which equates to Flood Zone B.

The available OPW CFRAM modelled flood mapping indicates that the edges of Lough Ree, and low lying areas around the lake, are liable to flood during these flood events and peninsula / headland at Barry More Townland will be cut-off by flood waters at a low point. In addition, extensive flooding is predicted on low lying ground at Comaseer Townland along the western part of the study area.

Mid-Range Future Scenario Flood Extents

The Mid-Range Future Scenario (MRFS) Flood Extents for the River Shannon at the site are shown in Figure 30, for the modelled medium probability flood extent, the 1% AEP flood outline which equates to Flood Zone A, and the low probability flood extent, the 0.1% AEP flood outline which equates to Flood Zone B.

The OPW CFRAM Mid-Range Future Scenario flood extents were generated and modelled taking in the potential effects of climate change using an increase of +20% in flood flows over a future time horizon of 100 years.

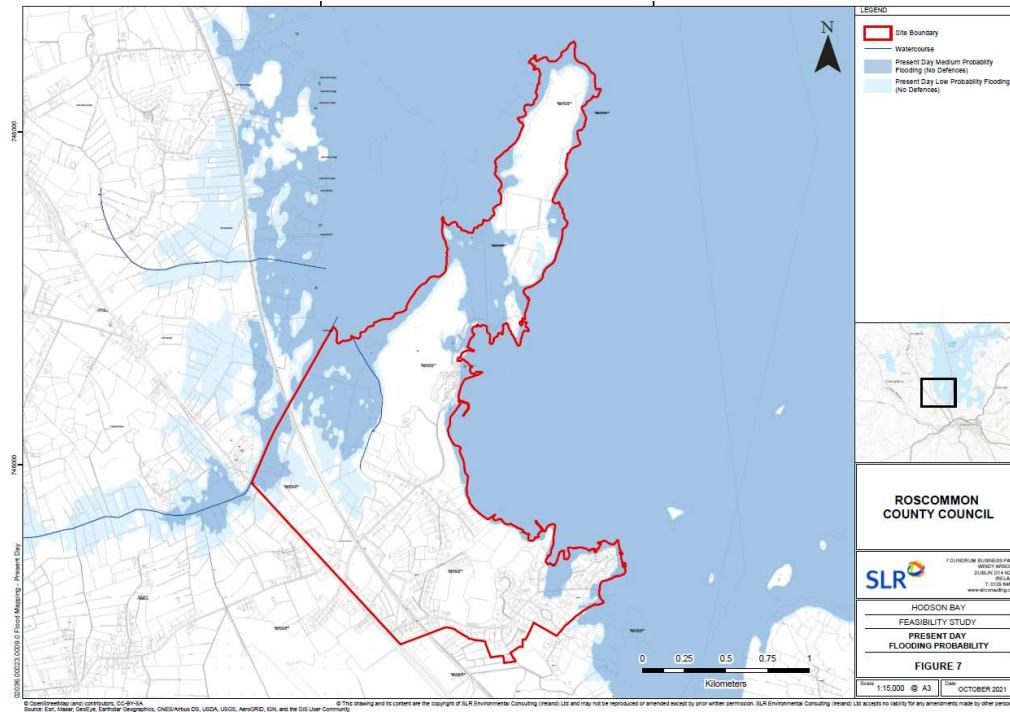
The available OPW CFRAM modelled MRFS flood extent mapping indicates that the flooding is slightly more extensive, particularly in lower lying areas, than under the modelled present day flood extents.

Land Use and Flooding

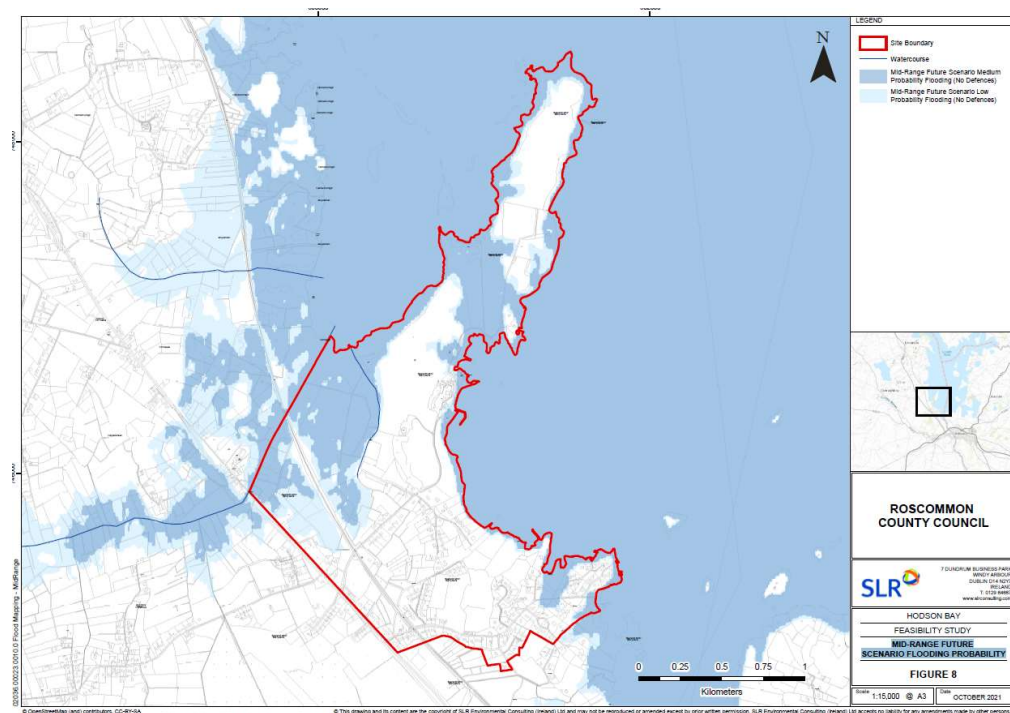
The Flood Planning Guidelines set out the planning implications for development in each of the Flood Zones and gives examples of typical types of development vulnerability which are considered appropriate to each identified flood zone, see Diagram 1 below.

The planning implications for development in each flood zone are:

- Zone A** *Most types of development would be considered inappropriate in this zone. Development in this zone should be avoided and/or only considered in exceptional circumstances, such as in city and town centres, or in the case of essential infrastructure that cannot be located elsewhere, and where the Justification Test has been applied. Only water-compatible development, such as docks and marinas, dockside activities that require a waterside location, amenity open space, outdoor sports and recreation, would be considered appropriate in this zone.*
- Zone B** *Highly vulnerable development, such as hospitals, residential care homes, Garda, fire and ambulance stations, dwelling houses and primary strategic transport and utilities infrastructure, would generally be considered inappropriate in this zone, unless the requirements of the Justification Test can be met. Less vulnerable development, such as retail, commercial and industrial uses, sites used for short-let for caravans and camping and secondary strategic transport and utilities infrastructure, and water-compatible development might be considered appropriate in this zone. In general however, less vulnerable development should only be considered in this zone if adequate lands or sites are not available in Zone C and subject to a food risk assessment to the appropriate level of detail to demonstrate that food risk to and from the development can or will adequately be managed.*
- Zone C** *Development in this zone is appropriate from a food risk perspective (subject to assessment of food hazard from sources other than rivers and the coast) but would need to meet the normal range of other proper planning and sustainable development considerations.*



**Figure 29 -
OPW CFRAM Present Day Flood Extents for Medium and Low Probability Flood Events**



**Figure 30 -
OPW CFRAM Mid-Range Future Scenario Flood Extents for Medium and Low Probability Flood Events**

Vulnerability class	Land uses and types of development which include*:
Highly vulnerable development (including essential infrastructure)	<p>Garda, ambulance and fire stations and command centres required to be operational during flooding;</p> <p>Hospitals;</p> <p>Emergency access and egress points;</p> <p>Schools;</p> <p>Dwelling houses, student halls of residence and hostels;</p> <p>Residential institutions such as residential care homes, children's homes and social services homes;</p> <p>Caravans and mobile home parks;</p> <p>Dwelling houses designed, constructed or adapted for the elderly or, other people with impaired mobility; and</p> <p>Essential infrastructure, such as primary transport and utilities distribution, including electricity generating power stations and sub-stations, water and sewage treatment, and potential significant sources of pollution (SEVESO sites, IPPC sites, etc.) in the event of flooding.</p>
Less vulnerable development	<p>Buildings used for: retail, leisure, warehousing, commercial, industrial and non-residential institutions;</p> <p>Land and buildings used for holiday or short-let caravans and camping, subject to specific warning and evacuation plans;</p> <p>Land and buildings used for agriculture and forestry;</p> <p>Waste treatment (except landfill and hazardous waste);</p> <p>Mineral working and processing; and</p> <p>Local transport infrastructure.</p>
Water-compatible development	<p>Flood control infrastructure;</p> <p>Docks, marinas and wharves;</p> <p>Navigation facilities;</p> <p>Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location;</p> <p>Water-based recreation and tourism (excluding sleeping accommodation);</p> <p>Lifeguard and coastguard stations;</p> <p>Amenity open space, outdoor sports and recreation and essential facilities such as changing rooms; and</p> <p>Essential ancillary sleeping or residential accommodation for staff required by uses in this category (subject to a specific warning and evacuation plan).</p>
*Uses not listed here should be considered on their own merits	

Diagram 1
Classification of Vulnerability of Different Types of Development (Source: Table 3.1 - Planning Guidelines)

Historic Environment

For the purposes of this feasibility study the historic environment resource includes the following types of designated assets:

- World Heritage Sites;
- National Monuments;
- Nationally important sites on the National Inventory of Architectural Heritage; and
- Conservation Areas.

Many of these designations are of international or national importance, with the caveat that Conservation Areas may be of local, regional, or national importance. In addition, the following non-designated assets are also considered in the study:

- Recorded Monuments and Places (RMP); and
- Recorded and Protected Structures (RPS).

This desk-based feasibility assessment was made in compliance with the standards and guidelines of the Chartered Institute for Archaeologists (2014)²⁴. SLR Consulting Ltd is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA) and has undertaken this cultural heritage feasibility study. For the purposes of this study a search area of 2km was utilised.

Sources Consulted

The following records of heritage assets were consulted:

- The Historic Environment Viewer (Online).
- The Record of Monuments and Places (RMP).
- The Sites and Monuments Record (SMR).
- The National Inventory of Architectural Heritage (NIAH).
- National Monuments Service Wreck Viewer.
- Record of Protected Structures for County Roscommon, Updated 12th May 2014.

Ordnance Survey maps were consulted using the online National Townland and Historical Map Viewer. The following maps were consulted:

- Historic 6 Inch First Edition Colour.
- Historic 6 Inch First Edition Black and White.
- Historic 25 Inch.
- Historic 6 Inch Last Edition Black and White.

The following sources were used to provide additional information:

- The National Folklore Collection from University College Dublin.
- Hodson Bay Hotel: How Hodson Bay Got Its Name. Accessed at: <http://hodsonbayblog.com/how-hodson-bay-got-its-name/>

²⁴ CIfA (2014) *Standards and Guidance for Historic Environment Desk-Based Assessment*, Reading: Chartered Institute for Archaeologists

- Gibbon, S. (1829) *The Recollections of Skeffington Gibbon, from 1796 to the Present Year 1829: Being an Epitome of the Lives and Characters of the Nobility and Gentry of Roscommon; the Genealogy of Those who are Descended from the Kings of Connaught; and a Memoir of the Late Madame O'Connor Don.*
- Smith, G.F. and Crowley, W. (2020) *The Habitats of Cutover Raised Bog.* National Parks and Wildlife Service.

Legislation and Policy

Granada Convention

The 1985 Convention for the Protection of the Architectural Heritage of Europe (Granada Convention) is an international convention established by the Council of Europe and ratified by Ireland in 1997. The convention aims to reinforce and promote policies for the conservation and enhancement of Europe's heritage, emphasizing the importance of maintaining inventories of cultural heritage assets. Notably, Article 1 defines architectural heritage as:

- Monument: all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixings and fittings;
- Group of Buildings: homogenous groups of urban or rural buildings conspicuous for their historical, archaeological, artistic, scientific, social or technical interest which are sufficiently coherent to form topographically definable units;
- Sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogenous to be topographically definable and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest.

Valetta Convention

The 1992 Convention for the Protection of the Archaeological Heritage of Europe (revised) is an international convention established by the Council of Europe and ratified by Ireland in 1997. The aim of the Valetta Convention is set out in Article 1:

1. The aim of this (revised) Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.

The Valetta Convention ensures that there is co-operation between all parties involved within the planning process in order to ensure preservation and protection of archaeological heritage at all stages.

National Monuments Acts of 1930 to 2004

The National Monuments Act of 1930 and its subsequent amendments in 1954, 1987, 1994, and 2004 ensure the legal protection of over 120,000 archaeological sites and monuments. Section 12 of the National Monuments (Amendment) Act 1994 established the Record of Monuments and Places (RMP), under which all sites should be catalogued. Section 12(3) states that a notice of proposed work must be given in writing to the Minister of Culture, Heritage and the Gaeltacht. As such, all proposed works within or surrounding an archaeological monument are afforded statutory protection through the National Monuments Acts of 1930 to 2004.

Planning and Development Act 2000

The Planning and Development Act 2000 includes objectives to protect archaeological heritage within its policies for proper planning and sustainable development. It helps to fulfil Ireland's obligations under the Valetta Convention. Part IV Outlines the Acts stance on Architectural Heritage and ensures that development plans must include objectives that ensure the protection of protected structures and the character of protected areas in order to ensure proper and sustainable planning and development.

Additional Legislation

Further legislation ensures the protection of Ireland's heritage assets within the planning process. This legislation includes:

- Heritage Act 1995
- Cultural Institutions Act 1997
- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999

D Roscommon County Development Plan 2021-2027 – Volume I

Chapter 9 of the Roscommon County Development Plan 2021-2027 contains the following applicable cultural heritage policy objectives:

BH9.13: Secure the preservation (i.e., preservation in situ or, as a minimum, preservation by record) of all archaeological monuments included in the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act, 1994, and of sites, features and objects of archaeological interest generally. In securing such preservation Roscommon County Council will have regard to the advice and recommendations of the National Monuments Section of the Department of Culture, Heritage and the Gaeltacht.

County Roscommon Heritage Plan 2017-2021

Roscommon County has a generalised heritage plan which recognises heritage as an integral part of the landscape and society. The general heritage plan presents 10 strategic goals through which Roscommon County Council aims to:

'Continue to create and promote an increased knowledge, awareness and appreciation of the natural, built, and cultural heritage of County Roscommon and to conserve it for future generations'

Historic Environment Baseline

Figure 14 presents the location of heritage assets referred to below. Historic Ordnance Survey mapping (1888 6 Inch, accessed on the Historic Environment Viewer) was consulted for the study area.

Assets within Site

Assets within the site of the proposed development include **two known heritage assets**. These include the causeway of Barrymore townland, (**RO049-0050002**) and an enclosure (**RO049-010**) to the north of the proposed development.

Causeway (RO049-0050002)

A causeway (**RO049-0050002**) is marked on the 1951 Ordnance Survey (OS) map (6 Inches). The site is located on the west coast of Hodson Bay, connected to Goose Island. The causeway has dimensions of 60m in width and runs 200m to Goose Island, a small island located 0.6km to the east of Hodson Bay peninsular. Goose Island is a redundant record on the SMR (**RO049-0050001**) and is believed to be natural in origin. The causeway is likely post medieval in date as it has since been raised and expanded since its first iteration on the OS map

Enclosure (RO049-010)

An enclosure, noted as an enclosed wood on the 1837 and 1915 editions of the Ordnance Survey map, (6-Inch). The enclosure is situated on the north west facing slope, approximately 70m in diameter. The enclosure comprises a circular grass covered bank approximately 0.2m high. No visible entrance has been identified. The enclosure is unknown date but may be prehistoric and in relation to other enclosures in the area such as the hilltop enclosure (**RO048-1580001**) that is situated 3km to the south west. Within the redundant record **RO049-012**, the enclosure is described as a rath.

Peat Bog

Within the site of the proposed development is an area of cutover raised peat. A cutover bog is an area of peat which has had part of its peat mass removed, with the peat having been domestically cut. Within Ireland, peat was used for fuel domestically since the 7th Century and was a principal source of fuel by the 17th Century.

The presence of a Peat Bog within the survey area presents the possibility for highly preserved archaeology. The anaerobic environment and acidity within a Peat Bog mean that it is extremely good at preserving archaeological material. Approximately 1600 recorded archaeological finds have been recovered from Irish Peat Bogs, including stone tools, weaponry, coin hoards and human remains. Many finds within Irish Peat Bogs are associated with causeways used to traverse the difficult terrain.

Assets outwith Site

Within 1km of the site, there are six heritage assets. One is the causeway of Barrymore (**RO049-002002**) located 42m to the east from the site boundary, this causeway links to the island of Lough Ree (**RO049-02001**), which previously thought to be a crannog has now been discounted. The causeway is first recorded on the first edition OS map of 1837 and 1915. The description of the causeway indicates that it is a modern feature. Additionally, the aforementioned Goose Island (**RO049-0050001**) is outwith the site boundary and is thought to be a natural feature.

Also, within 1km of the site lies a Presbyterian house recorded on the NIAH (**Reg no. 31949002**) and the County Roscommon Record of Protected Structures (**RPS No. 04900577**). The NIAH entry notes that; 'The limestone built presbytery displays architectural motifs popularly used in the late nineteenth century, such as the canted bay windows. The pointed-arched window and door openings compliment and reflect those of the adjacent church and underline the ecclesiastical association of the structure.'

On an island to the east of the site, named by the Hodson Bay Hotel as **Temple Island**, is a stone pillar. The historical OS maps (6 Inch and 25 Inch) name this structure Hodson's Pillar (**RO049-006**). The pillar is thought to

have been constructed c. 1700 and was initially thought to have been placed at the exact centre of Ireland. The Hodson Bay Hotel states that this pillar has started to disintegrate in recent years.

Within the south of Lough Ree, c. 0.17km east of Yellow Island, and c. 0.62km east of the site is an un-named rowboat wreck (**W18532**). The wreck lies within 7m of water and is most likely a modern angling boat.

The redundant SMR record **RO049-001** notes a small oval island c. 0.75km east of the site, at the entrance to a triangular bay on the west shore of Lough Ree. Whilst this island is attached to the mainland by a ridge, it is thought that it is not artificial in construction and is most likely natural in origin.

Historic Mapping

The National Townland and Historical Map Viewer was used to identify any further possible archaeological or heritage assets within the site.

A Spa Well (Chalybeate) is present on both the Historic 25 Inch and Historic 6 Inch Last Edition Black and White Ordnance Survey (OS) maps. A chalybeate is a mineral spring that is high in iron oxides. These springs were thought to have healing properties and their waters were drunk medicinally. The depiction of the well on the historic mapping may indicate the presence (or former presence) of a marker or structure to denote its location.

The historical OS maps (6 Inch and 25 Inch) show the presence of Hodson's Bay House, in the place of the modern day Hodson Bay Hotel. The hotel's website states that the land was given to General Hodson by Oliver Cromwell, in reward for his service after his invasion of Ireland in 1640. It was on this land that the original Hodson's Bay House was built in c. 1700. It is unknown how much of the original house remains. The 25 Inch OS map shows two wells, one within the courtyard of Hodson's Bay House and one along the waterfront to the east; no evidence of these can be seen on aerial photographs.

Historical sources²⁵ state that Hodson's Bay House was originally called the Manor of St. John, after an Abbey of St. John that used to stand on the site. The source states that the ruins of the abbey were still visible in the late 1700s/early 1800s and that there was a burial ground nearby. Neither of these sites are visible within historical mapping.

To the west of the site of Hodson's Bay House, the Historic 25 Inch and Historic 6 Inch Last Edition Black and White OS maps show a site named Hodson's Tower. It is accompanied by an OS trig point symbol and is most likely in reference to the trig point. An entry in the National Folklore Collection²⁶ names a site within Hodson's Bay called Hudson's Bay Tower, however, due to the description of it having been thought to be the location of the centre of Ireland, it is most likely referring to the previously mentioned Hodson's Pillar.

Conclusions and Recommendations for Heritage Assets

There are no designated heritage assets within the boundary of the study area or its immediate proximity. Development proposals within the Site would not therefore impact upon designated heritage assets through ground disturbance. Furthermore, impact to any distant designated heritage asset through setting is considered unlikely, albeit field observations may be necessary to confirm this.

Within the site boundary, there are two undated heritage assets recorded on known datasets; an enclosure and a causeway. An area of peat bog is also recorded which has a high potential for archaeological remains. In consolidation of the known datasets a cursory analysis of historic mapping and historic sources identified multiple unrecorded potential heritage assets. The unrecorded asset of Hodson's Bay House (within the footprint of the Hodson Bay Hotel) is somewhat visible in modern aerial photographs (National Townland and Historical Map Viewer, Aerial Photographs 2005-2012). Further potential heritage assets, such as the reported St. Johns Abbey and the associated burial ground, are not seen on aerial photographs or any modern or historical maps

²⁵ The Recollections of Skeffington Gibbon, from 1796 to the Present Year 1829: Being an Epitome of the Lives and Characters of the Nobility and Gentry of Roscommon; the Genealogy of Those who are Descended from the Kings of Connaught; and a Memoir of the Late Madame O'Connor Don.

²⁶ <https://www.duchas.ie/en/cbes/5009134/4989909>

and as such their true location is unknown. As such, there is a potential for associated unrecorded heritage assets to be within the site boundary.

In summary, the initial judgement of impact to designated heritage assets is anticipated to be 'no impact', although field observations may highlight an in-direct impact not readily available from desktop resources.

Referencing the proposed methodology for full impact assessment set out in Appendix 01, the initial judgement of impact on non-designated heritage assets is gauged very broadly at this stage as between 'no impact' and 'significant impact'. However, the most likely scenario within these parameters would be an impact of 'slight' or 'moderate' adverse effect. Certainly, further work, as set out below, would assist in refining the level of impact or providing information on how a significant impact could be adequately mitigated.

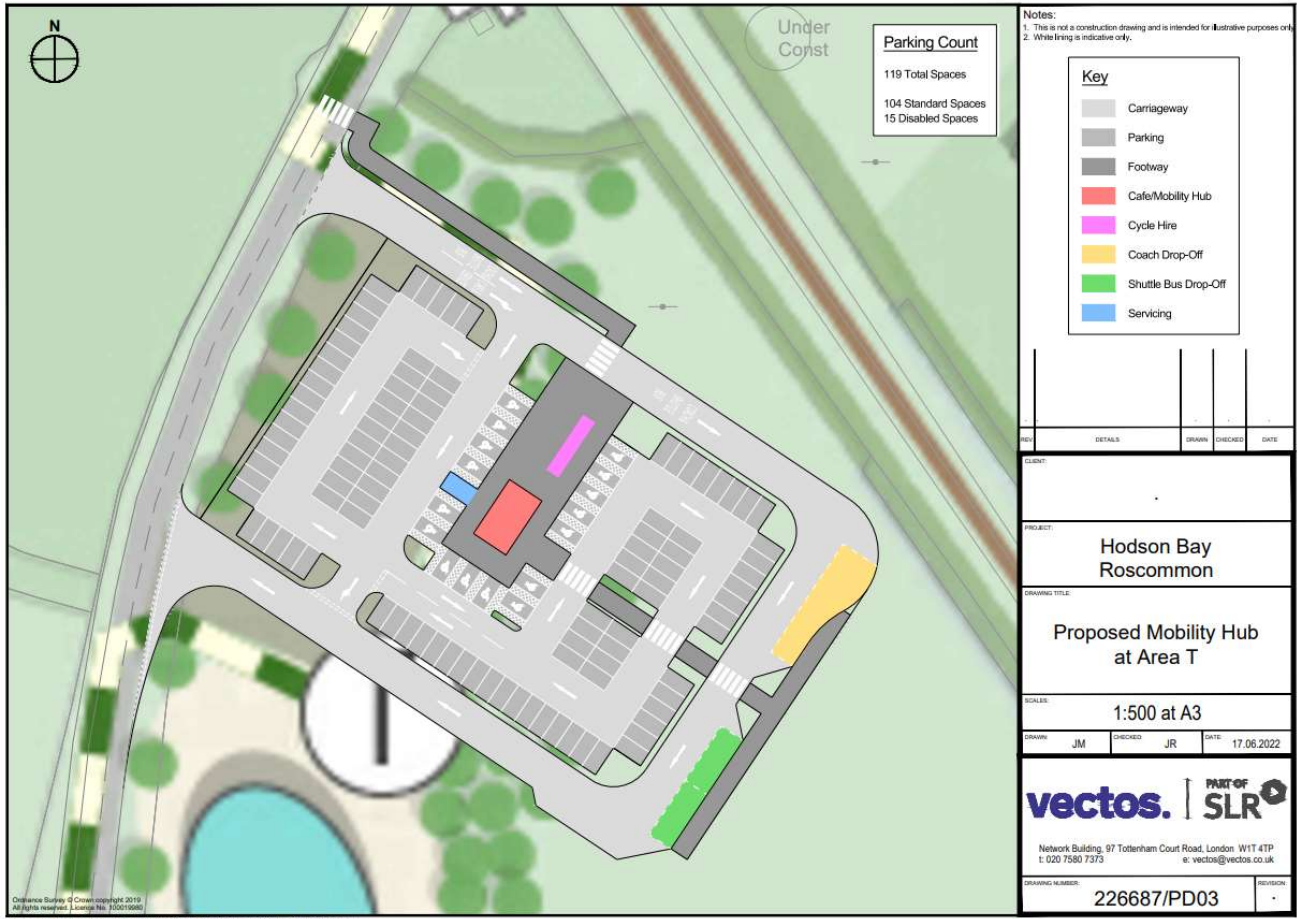
Summary of Environmental Constraints

The following environmental constraints will require additional consideration:

- Proximity to SPA and the need for 2 years of wintering bird surveys to information appropriate assessment, carried out and submitted with planning applications.
- Significant areas of flood risk within the study area.
- Site servicing solutions for Yew Point.
- Due to the high potential for the presence of remains associated with heritage assets within the site boundary, further assessment is undertaken at project level impact assessment stage. Further baseline assessment include additional archival research and a targeted walkover survey which would verify the absence/presence of above ground remains associated with heritage assets and assist in determining the impact on any heritage assets from forthcoming development proposals and potential mitigation strategies to offset any harm.

APPENDIX 02: CONCEPT PLANS

APPENDIX 03: MOBILITY HUB DESIGN



APPENDIX 05: SCHEDULE OF ACCOMMODATION - PROPOSED WATERSPORTS FACILITY AND CAFÉ

Ireland's Heart Waterpark Schedule of Accommodation

Private Side

Reception/Tickets Including space for queuing	80m2
Wet Suit Out	75m2
Changing/Showers/Wc's	600m2
Health and Safety Briefing	100m2
Wet Suit in	75m2
General Office	50m2
Meeting Room	50m2
Storage	100m2
Circulation @ 20%	226m2
Total	1356m2

Public side

Cafe/Mezzanine viewing area	300m2 + 150m2 mezzanine
WC's	30m2
Kitchen and servery	45m2
Staff	25m2
Storage	50m2
Public Access wc	50m2
Public Access showers	50m2
Public Access storage	50m2
Additional storage	150m2
Circulation @ 20%	180m2
Total	1080m2

APPENDIX 06: CROSS-SECTIONAL DRAWING FOR THE INTERNAL ACCESS ROADS

APPENDIX 07: COSTINGS

EUROPEAN OFFICES

United Kingdom

AYLESBURY

T: +44 (0)1844 337380

BELFAST

belfast@slrconsulting.com

BRADFORD-ON-AVON

T: +44 (0)1225 309400

BRISTOL

T: +44 (0)117 906 4280

CARDIFF

T: +44 (0)29 2049 1010

CHELMSFORD

T: +44 (0)1245 392170

EDINBURGH

T: +44 (0)131 335 6830

EXETER

T: + 44 (0)1392 490152

GLASGOW

glasgow@slrconsulting.com

GUILDFORD

guildford@slrconsulting.com

LONDON

T: +44 (0)203 805 6418

MAIDSTONE

T: +44 (0)1622 609242

MANCHESTER (Denton)

T: +44 (0)161 549 8410

MANCHESTER (Media City)

T: +44 (0)161 872 7564

NEWCASTLE UPON TYNE

T: +44 (0)191 261 1966

NOTTINGHAM

T: +44 (0)115 964 7280

SHEFFIELD

T: +44 (0)114 2455153

SHREWSBURY

T: +44 (0)1743 23 9250

STIRLING

T: +44 (0)1786 239900

WORCESTER

T: +44 (0)1905 751310

Ireland

DUBLIN

T: + 353 (0)1 296 4667

France

GRENOBLE

T: +33 (0)6 23 37 14 14