


March 28th, 2025

Notice Of Meeting

You are requested to attend the meeting to be held on **Wednesday, 2nd April 2025 at 7:00 pm**
in **Church Street, Newtownards.**

Agenda

Agenda

 *EC 02.04.25 Agenda.pdf*

Page 1

1. **Apologies**
2. **Declarations of Interest**
3. **Deputation by Orcades Marine - Port Marine Safety Code**

Reports for Approval

4. **Response to Notice of Motion Regarding the Reintroduction of Pedestrian Access at Council HRCs**

(Report attached)

 *Item 4 Notion of Motion Report - Pedestrian Access to HRCs.pdf*

Page 3

5. **Outline Business Case - Council Depot Rationalisation Review**

(Report attached)

 *Item 5 Council Depot Rationalisation Review.pdf*

Page 6

Items Delegated for Approval

6. **Grant of an Entertainments Licence**

(Report to follow)

Reports of Noting

7. **Review of Navigation in Strangford Lough**

(Report attached)

 *Item 7 Review of Navigation in Strangford Lough.pdf*

Page 9

 *Item 7 Appendix 1 Strangford Lough_Review of Navigation Aids.pdf*

Page 12

 *Item 7 Appendix 2 Main and Local routes Strangford Lough 2025.pdf*

Page 226

8. Harbours Designated Person Audit Findings

(Report attached)

 *Item 8 Harbours - Designated Person Audit Findings.pdf*

Page 231

 *Item 8 Appendix 1 Designated Person Audit Report.pdf*

Page 233

9. Q3 Building Control Activity Report (Oct - Dec 2024)

(Report attached)

 *Item 9 Q3 Building Control Activity Report (Oct Dec 2024).pdf*

Page 260

10. Notices of Motion

10.1 Notice of Motion submitted by Councillor McClean and Councillor Cathcart

That Council notes the tired and inconsistent presentation of Christmas lights and illuminations in Bangor City Centre, particularly during the Christmas period, and considers potential festive lighting improvements for Christmas 2025. Further, that Council tasks officers to bring back a report presenting options that draw on successful practice and displays elsewhere, including the use of festoon lighting over Main Street. The report should look at the feasibility of the future expansion of these concepts to the remainder of the Borough, if proven successful in Bangor.

11. Any Other Notified Business

*****ITEMS 12-13 IN CONFIDENCE*****

Reports for Approval

12. Purchase of Replacement Vehicles

(Report attached)

 *Item 12 Purchase of Replacement Vehicles DL.pdf*

Not included

13. Extension of Tender for the Provision of Legionella Services

(Report attached)

 *Item 13 Tender for the Provision of Legionella Services.pdf*

Not included

ARDS AND NORTH DOWN BOROUGH COUNCIL

26 March 2025

Dear Sir/Madam

You are hereby invited to attend a hybrid meeting (in person and via Zoom) of the Environment Committee of Ards and North Down Borough Council in the Council Chamber, 2 Church Street, Newtownards on **Wednesday, 2 April 2025** commencing at **7.00pm**.

Yours faithfully

Susie McCullough
Chief Executive
Ards and North Down Borough Council

A G E N D A

1. Apologies
2. Declarations of Interest
3. Deputation by Orcades Marine – Port Marine Safety Code

Reports for Approval

4. Response to Notice of Motion Regarding the Reintroduction of Pedestrian Access at Council HRCs (Report attached)
5. Outline Business Case - Council Depot Rationalisation Review (Report attached)

Items Delegated for Approval

6. Grant of an Entertainments Licence (Report to follow)

Reports for Noting

7. Review of Navigation in Strangford Lough (Report attached)
8. Harbours Designated Person Audit Findings (Report attached)
9. Q3 Building Control Activity Report (Oct – Dec 2024) (Report attached)
10. Notices of Motion
- 10.1 Notice of Motion submitted by Councillor McClean and Councillor Cathcart

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11. Any Other Notified Business

*****ITEMS 12-13 IN CONFIDENCE*****

Reports for Approval

12. Purchase of Replacement Vehicles (Report attached)

13. Extension of Tender for the Provision of Legionella Services (Report attached)

MEMBERSHIP OF ENVIRONMENT COMMITTEE (16 Members)

Alderman Armstrong-Cotter	Councillor Irwin
Councillor Blaney	Councillor Kerr
Councillor Boyle	Alderman McAlpine (Chair)
Alderman Cummings	Councillor McKee
Councillor Cathcart	Councillor McKimm
Councillor L Douglas	Councillor McLaren (Vice Chair)
Councillor Edmund	Councillor Morgan
Councillor Harbinson	Councillor Wray

Unclassified

3

ITEM 4**Ards and North Down Borough Council**

Report Classification	Unclassified
Exemption Reason	Not Applicable
Council/Committee	Environment Committee
Date of Meeting	02 April 2025
Responsible Director	Director of Environment
Responsible Head of Service	Head of Waste and Cleansing Services
Date of Report	17 February 2025
File Reference	47045
Legislation	
Section 75 Compliant	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other <input type="checkbox"/> If other, please add comment below:
Subject	Response to NoM Regarding the Reintroduction of Pedestrian Access at Council HRCs
Attachments	None

The following Notice of Motion was agreed by the Council in October 2024.

“That this Council tasks officers with producing a report outlining how pedestrian access to Household Recycling Centres in the Borough could be facilitated.

This report should include consideration of health and safety requirements, the HRC booking system and the ability to provide pedestrian access in other council areas in Northern Ireland”.

To facilitate pedestrian access at the Council’s Household Recycling Centres, three potential options were identified:

1. Address the issue as part of the HRC Estate Improvement Strategy. The primary aims of our agreed Strategy include:

“Pedestrian access will be considered when identifying new sites, though

Not Applicable

4

will always be subject to the ability to provide pedestrian access safely and separate from vehicular access.”

Officers believe that this option represents by far the most strategic and cost efficient/effective way of addressing the potential for accommodating safe pedestrian access into HRCs, allowing for this issue to be considered in the context of all the other stated aims of our agreed HRC Estate Improvement Strategy.

- Engage Consulting Engineers to carry out a feasibility study into the redesign of the existing footprint of each HRC facility to enable pedestrian access, with appropriate safe segregation from vehicles visiting and/or servicing the sites. Based on indicative costs obtained from Belfast City Council for a similar exercise carried out at Alexandra Park Avenue HRC, the cost for consultancy work is likely to be in the region of £20,000 for the feasibility study across our 9 HRCs and in the region of £120,000 for civil works.

The following table sets out the footprint of our 9 Council HRCs in comparison to the Belfast CC Site at Alexandra Park Avenue. When consideration is given to the space required for barriers and separate pedestrian access walkways, it is questionable whether any feasibility study is likely to conclude that the type of pedestrian access arrangements provided at the Alexandra Park Avenue site could in fact be incorporated at any of the Council’s HRCs, apart from Balloo.

Site Name	Area (Square metres)
Donaghadee	420
Portaferry	650
Kircubbin	705
Hollywood	825
Ballygowan	925
Millisle	1010
Comber	1680
Newtownards	1870
Balloo (Bangor)	4650
Alexander Park Avenue	4450

- The online booking system could be adapted to allow specific time slots to be booked for walk-in access only. For example, a 1-hour slot could be set aside two or three times per week specifically for pedestrian access only, and bookings for vehicular access would not be allowed during those periods. Site users would still be required to comply with the booking system conditions. It should however be noted that the Council has limited control over the times that outside contractors arrive on-site to service various containers. Because of the types of vehicles used, the requirements for reversing and lifting manoeuvres, these represent the highest risk activities on site and generally require a temporary closure or site restrictions depending on the site layout – and such events might on occasions clash with designated pedestrian access periods.

Not Applicable

5

Officers consider that this option would be an unnecessary over-provision of access arrangements for pedestrians, and lead to an unpopular curtailment of access availability for vehicular customers at sites. The Department is unaware of any significant level of actual demand for pedestrian access to HRCs, and complaints are not being received by officers about this issue. Consequently, it is considered likely that dedicated pedestrian access only periods at sites would be poorly utilised (whilst denying vehicular access during those times).

Were Members minded to consider this option, officers believe that it should be for a trial period only – with the longer-term future of such arrangements only being decided upon after a review of the trial. It should also be noted that there would be a cost of £1400 to make the necessary software changes (and the same again if Council decided to revert to the original system following evaluation of the trial).

RECOMMENDATION

It is recommended that Council consider the options set out in this report and direct officers accordingly.

Unclassified

6

ITEM 5**Ards and North Down Borough Council**

Report Classification	Unclassified
Exemption Reason	Not Applicable
Council/Committee	Environment Committee
Date of Meeting	02 April 2025
Responsible Director	Director of Environment
Responsible Head of Service	Head of Assets and Property Services
Date of Report	20 March 2025
File Reference	80060
Legislation	
Section 75 Compliant	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other <input type="checkbox"/> If other, please add comment below:
Subject	Outline Business Case - Council Depot Rationalisation Review
Attachments	None

Members may be aware that the subject of the Council's operations depot estate has been discussed in the context of the estimates process and our capital investment programme.

The Council faces several key strategic challenges going forward, including:

- The need to transition towards a net zero greenhouse gas emissions target by 2050
- The need to maximise the efficiency of Borough maintenance operations
- The need to maximise the efficiency of waste management operations
- The need to maximise waste recycling performance

A number of key strategies/plans have either already been agreed by the Council or in the process of development and finalisation, that are pertinent to these challenges.

Not Applicable

7

These include:

- Roadmap to Sustainability
- Feasibility Study for Alternate Fuels and Roadmap to Green Fleet
- Sustainable Waste Resource Management Strategy
- Climate Action Plan (under development)
- Climate Adaptation Plan
- Corporate Plan
- Estate Strategy 2020-2025 - Ards and North Down Borough Council
- Ards and North Down Local Development Plan - Preferred Options Paper
- Waste Management Plan (arc21 region)

Various factors mean that our existing operations depots are unlikely to adequately support the achievement of these strategic challenges. Probably most significant amongst these, is the lack of current infrastructure to support the transition to a green fleet. There is also a need to ensure that our operations activities are organised and managed in the most efficient way possible, with separate legacy facilities remaining largely unchanged since reorganisation in 2015.

A Depot Rationalisation Project Board has been established to take this issue forward, comprising officers from across relevant departments.

Strategic Outline Case (SOC)

It is proposed that the Council invites proposals for the development of a Strategic Outline Case (SOC) for the development of an Integrated Depot(s) for Ards and North Down Borough Council, that will facilitate the achievement of the strategic goals outlined and, in particular, ensure that the Council is in a position to achieve its 2050 net zero greenhouse gas emissions target. The SOC should include option(s) for collaboration/partnership working with other key statutory departments/agencies that deliver maintenance activities and/or operate fleets in the Borough.

The SOC should explicitly take cognisance, among other appropriate considerations, of the following factors:

- Review of the Council's existing depot estate and identification of constraints and opportunities associated with this
- Review of potential sites (and or key locations within the Borough) for one or more new integrated depots
- Review of potential features of any new depot(s), including incorporation of onsite generation of renewable energy (wind, solar, hydrogen)
- Potential for co-location/facilities sharing with other key statutory departments /agencies
- Establish a facility schedule including areas
- High level costing

£25K has been included in the budget for this year to support the completion of a SOC.

Not Applicable

8

RECOMMENDATION

It is recommended that the Council agrees to invite tenders for the completion of a Strategic Outline Case for rationalisation of our depot estate.

Unclassified

9

ITEM 7**Ards and North Down Borough Council**

Report Classification	Unclassified
Exemption Reason	Not Applicable
Council/Committee	Environment Committee
Date of Meeting	02 April 2025
Responsible Director	Director of Environment
Responsible Head of Service	Head of Assets and Property Services
Date of Report	14 March 2025
File Reference	65373
Legislation	The Harbours Act 1970, Merchant Shipping Act 1995
Section 75 Compliant	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other <input type="checkbox"/> If other, please add comment below:
Subject	Review of Navigation in Strangford Lough
Attachments	Appendix 1: Review of Navigational Aids Appendix 2: New marked routes through Strangford Lough

Background

Ards and North Down Borough Council is the Local Lighthouse Authority responsible for Aids to Navigation (AtoNs) within the Council's area. There are over 100 AtoNs on our coastline and throughout Strangford Lough.

Many AtoNs within Strangford Lough were until relatively recently unknown to us and historically some have not been well maintained. As part of our commitment to develop safe navigation through the Borough's waters, in December 2020 Members agreed to undertake a review of these AtoNs.

This report aims to update Member on the actions taken since then.

Not Applicable

10

Step 1- Carry out a Navigational Risk Assessment & Stakeholder Engagement

With no specific budget set aside, progress was relatively slow to start however in March 2022 an opportunity arose to join with Newry, Mourne and Down District Council in availing of NIEA's Challenge Fund, to appoint a consultant who would carry out navigational risk assessments and stakeholder engagement sessions in order to devise a new system of navigation for the Lough.

An extensive trawl of User Groups within Strangford Lough was undertaken to identify those stakeholder organisations / groups with an interest in Strangford Lough Navigation. The list was generated from the Strangford Lough and Lecale Partnership, the Strangford Lough Marine Protected Area Management Steering Group, The Strangford Lough Rangers Group, local sailing and coastal rowers and outdoor recreation providers. Invites were issued to 113 recipients within these organisations.

Further to the email invites, invitations were posted in the Strangford and Lecale ezine, a news article on www.strangfordlough.org and follow up posts on social media via Facebook and Instagram.

The attendees were well engaged throughout the meetings, with valuable feedback provided

The final report was issued in July 2024 and suggested that a single, lit, arterial route be provided through the centre of the Lough. The full report is attached at Appendix 1 for Members' information.

Step 2- Implementation of the Findings

With the new safe system of navigation confirmed, the next step was to seek budget to implement the changes.

Fortunately, in August 2024, the UK Shared Prosperity Fund was announced and was a good fit for the navigational improvement project due to the project's aims of increasing the connectivity and accessibility of the Lough. The Council subsequently agreed that £80,000 of the UKSPF funding be allocated to this project.

Officers began additional stakeholder engagement, speaking to the Royal Yachting Association and yacht/sailing clubs in the Borough to ensure that the navigational route proposed by the consultants would meet their needs.

Following these conversations, some additional routes were found to be necessary in addition to the main arterial route:

- Kircubbin to Whiterock
- White Rock to Ringhaddy
- Rainey Island
- Comber River

Details of all marked routes are included in Appendix 2.

Not Applicable

11

A condition of the UKSPF funding was that works would be complete by March 2025 so at the time of writing this report works are well under way and will be completed prior to that deadline.

Conclusion

Officers are pleased to have been able to deliver this valuable project, consisting of approximately £100k of works, at minimal cost to the ratepayer. Feedback from sailing clubs has been extremely positive, with many speaking favourably about the new navigational aids that will make the Lough safer for mariners and promote recreational sailing between clubs across the Lough's coastline.

These new AtoNs are in the process of being recognised by Commissioners of Irish Lights and the old AtoNs removed where practical to do so.

RECOMMENDATION

It is recommended that Council note the update on the review of Aids to Navigation project.

STRANGFORD LOUGH

REVIEW OF NAVIGATION AIDS

Newry, Mourne and Down District Council

Project number: 60705982

29 January 2024

STRANGFORD LOUGH

Project number: 60705982

13

Quality information

Prepared by	Checked by	Verified by	Approved by
David Bell	Steve Powell	David McKillen	David Bell

Revision History

Revision	Revision date	Details	Authorized	Name	Position
00	30.01.2024	DRAFT ISSUE	DB	D Bell	Project Manager
01	22.04.2024	FINAL ISSUE	DB	D Bell	Project Manager
02	11.07.2024	Updated to include Client Comments	DB	D Bell	Project Manager
03	25.07.2024	Table 49 updated	DB	D Bell	Project Manager

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1

STRANGFORD LOUGH

Project number: 60705982

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Table of Contents

1.1	Scope of this Report / Risk Assessment	2
1.2	Limitations of this Report / Risk Assessment.....	2
2.	Description of the waterway and individual zones.....	4
2.1	Strangford Lough	4
2.1.1	Description of the Lough.....	4
2.1.2	Environmental Characteristics of the Lough.....	5
2.1.3	Navigation within the Lough.....	6
2.1.4	Hazards within the Lough	7
2.1.5	AtoN within the Lough	8
2.1.6	Constraints to Navigation within the Lough.....	12
2.2	Zone Identification.....	13
2.2.1	Zone 1: Strangford North	14
2.2.2	Zone 2: South Island – Slave Rock	15
2.2.3	Zone 3: Main Passage West.....	16
2.2.4	Zone 4: Main Passage East.....	17
2.2.5	Zone 5: Trasnagh – Long Sheela	18
2.2.6	Zone 6: Kircubbin Bay – Ringburr Point.....	20
2.2.7	Zone 7: Long Rock – Ringdufferin Castle	21
2.2.8	Zone 8: Main Channel Long Sheelah – Audley’s Point	22
2.2.9	Zone 9: Quoile	23
2.2.10	Zone 10: Main Channel South.....	24
2.2.11	Zone 11: Audley’s Roads	26
2.2.12	Zone 12: The Meadows	27
2.2.13	Zone 13: West Channel.....	28
3.	Hazards and scenarios identified within each zone.....	29
3.1	Zone 1: Strangford North	30
3.2	Zone 2: South Island – Slave Rock	31
3.3	Zone 3: Main Passage West	32
3.4	Zone 4: Main Passage East.....	33
3.5	Zone 5: Trasnagh – Long Sheela	34
3.6	Zone 6: Kircubbin Bay – Ringburr Point.....	36
3.7	Zone 7: Long Rock – Ringdufferin Castle	37
3.8	Zone 8: Main Channel Long Sheelah – Audley’s Point	38
3.9	Zone 9: Quoile	39
3.10	Zone 10: Main Channel South.....	40
3.11	Zone 11: Audley’s Roads	41
3.12	Zone 12: The Meadows	42
3.13	Zone 13: West Channel.....	43
4.	Stakeholders present at the workshop and their relevant experience	44
4.1	Stakeholder Meeting No.1 (Royal Yachting Association)	44
4.2	Strangford Lough User groups	44
4.2.1	Stakeholder Meeting No.2 (Portaferry Recreation Hub).....	45
4.2.2	Stakeholder Meeting No.3 (Strangford Yacht Club).....	45
4.2.3	General feedback from Workshops	46
5.	Proposed risk mitigation measures and responsible organization(s).....	47
5.1	Improved coordination and planning.....	47
5.1.1	Standardised and co-ordinated AtoN.....	47
5.1.2	Co-ordinated management of AtoN	47
5.2	Enhanced AtoN service provision.....	48

5.2.1	Option 1: Undertake repairs to existing AtoN	48
5.2.2	Option 2: Enhance existing AtoN.....	49
5.2.3	Recommendation	55
5.3	Summary of Recommendation.....	55
6.	Conclusions, recommendations and next steps.....	61
7.	Bibliography.....	62

Figures

Figure 1.	Strangford Lough Location (Map Source: Google Earth)	4
Figure 2.	Strangford Lough (Map Source: Google Earth).....	4
Figure 3.	Environmental Designations	6
Figure 4.	Admiralty Chart 5612	6
Figure 5.	Primary Arterial Routes.....	7
Figure 6.	Wrecks and Maritime Casualties	7
Figure 7.	Wreckage Data	8
Figure 8.	AtoN Register.....	9
Figure 9.	ANDBC AtoN Survey Map.....	10
Figure 10.	NMDBC AtoN Survey Map.....	11
Figure 11.	ANDBC AtoN Survey Example	11
Figure 12.	Collated Data	12
Figure 13.	Zone Identification	13
Figure 14.	Zone 1 Boundary Extents.....	14
Figure 15.	Zone 2 Boundary Extents.....	15
Figure 16.	Zone 3 Boundary Extents.....	16
Figure 17.	Zone 4 Boundary Extents.....	17
Figure 18.	Zone 5 Boundary Extents.....	19
Figure 19.	Zone 6 Boundary Extents.....	20
Figure 20.	Zone 7 Boundary Extents.....	21
Figure 21.	Zone 8 Boundary Extents.....	22
Figure 22.	Zone 9 Boundary Extents.....	23
Figure 23.	Zone 10 Boundary Extents.....	25
Figure 24.	Zone 11 Boundary Extents.....	26
Figure 25.	Zone 12 Boundary Extents.....	27
Figure 26.	Zone 13 Boundary Extents.....	28
Figure 27.	Stakeholder Invite.....	45
Figure 28.	Existing AtoN (Base Map Source: Admiralty Chart 5612).....	51
Figure 29.	Proposed AtoN (Base Map Source: Admiralty Chart 5612)	53
Figure 30.	Combined AtoN (Base Map Source: Admiralty Chart 5612).....	54

Tables

Table 1.	List of Abbreviations.....	1
Table 2.	Existing lighted Buoys / Beacons	9
Table 3.	Zone 1 Summary Information	14
Table 4.	Zone 2 Summary Information	15
Table 5.	Zone 3 Summary Information	16
Table 6.	Zone 4 Summary Information	17
Table 7.	Zone 5 Summary Information	18
Table 8.	Zone 6 Summary Information	20
Table 9.	Zone 7 Summary Information	21
Table 10.	Zone 8 Summary Information	22
Table 11.	Zone 9 Summary Information.....	23
Table 12.	Zone 10 Summary Information.....	24

Table 13. Zone 11 Summary Information.....	26
Table 14. Zone 12 Summary Information.....	27
Table 15. Zone 13 Summary Information.....	28
Table 16. Zone 1: Hazards Identified.....	30
Table 17. Zone 1: Scenario Development.....	30
Table 18. Zone 2: Hazards Identified.....	31
Table 19. Zone 2: Scenario Development.....	31
Table 20. Zone 3: Hazards Identified.....	32
Table 21. Zone 3: Scenario Development.....	32
Table 22. Zone 4: Hazards Identified.....	33
Table 23. Zone 4: Scenario Development.....	33
Table 24. Zone 5: Hazards Identified.....	34
Table 25. Zone 5: Scenario Development.....	34
Table 26. Zone 6: Hazards Identified.....	36
Table 27. Zone 6: Scenario Development.....	36
Table 28. Zone 7: Hazards Identified.....	37
Table 29. Zone 7: Scenario Development.....	37
Table 30. Zone 8: Hazards Identified.....	38
Table 31. Zone 8: Scenario Development.....	38
Table 32. Zone 9: Hazards Identified.....	39
Table 33. Zone 9: Scenario Development.....	39
Table 34. Zone 10: Hazards Identified.....	40
Table 35. Zone 10: Scenario Development.....	40
Table 36. Zone 11: Hazards Identified.....	41
Table 37. Zone 11: Scenario Development.....	41
Table 38. Zone 12: Hazards Identified.....	42
Table 39. Zone 12: Scenario Development.....	42
Table 40. Zone 13: Hazards Identified.....	43
Table 41. Zone 13: Scenario Development.....	43
Table 42. Stakeholder Organisation Invites	44
Table 43. AtoN Symbols	48
Table 44. Repairs to Existing AtoN.....	48
Table 45. 'Missing' or 'Not Seen' AtoN.....	49
Table 46. Existing AtoN to be retained	49
Table 47. Repairs to existing AtoN	50
Table 48. Provision of new AtoN	52

Introduction

The following abbreviations have been used within the Report.

Table 1. List of Abbreviations

Column heading

ANDBC	Ards and North Down Borough Council
NMDDC	Newry Mourne and Down District Council
AtoN	Aids to Navigation
IALA	International Association of Lighthouse Authorities
SIRA	IALA Guideline G1138 – The use of the Simplified IALA Risk Assessment Method
ASSI	Area of Special Scientific Interest
AONB	Area of Outstanding Natural Beauty
SAC	Special Area of Conservation
SPA	Special Protection Area
MPA	Marine Protection Area
DOENI	Department of the Environment (Northern Ireland)
RYA	Royal Yachting Association
AFBI	Agri-Food and Biosciences Institute
NI	Northern Ireland
DAERA	Department of Agriculture, Environment and Rural Affairs
DFI	Department for Infrastructure
EA	Education Authority
NIWATER	Northern Ireland Water
WWT	Wildfowl and Wetlands Trust
ALARP	As low as reasonably practicable
FSA	International Maritime Organization Formal Safety Assessment
IMO	International Maritime Organization

1. Introduction

1.1 Scope of this Report / Risk Assessment

In pursuance of their duties as Local Lighthouse Authorities, Ards and North Down Borough Council (ANDBC) and Newry Mourne and Down District Council (NMDDC) have undertaken a review of the existing Aids to Navigation (AtoN) in Strangford Lough.

The assessment and management of risk is fundamental to the provision of effective marine AtoN and to this end the International Association of Lighthouse Authorities (IALA) published *IALA Guideline G1138 – The use of the Simplified IALA Risk Assessment Method (SIRA)* has been used as the basis for this report. It is recognised that the IALA standards are generally more applicable for larger vessels and heavily congested waterways. The vessels within Strangford Lough are typically of a smaller nature, and the waterway is generally not heavily congested. Regardless, it is considered that the methodology provides a standardised approach with the aim of improving navigation within Strangford Lough.

ANDBC and NMDDC have utilised the SIRA methodology and consulted with key stakeholders in the assessment of the AtoN in Strangford Lough with the aim of reviewing, and where appropriate, rationalising the provision and management of the infrastructure.

The main purpose of the Strangford Lough Aton review is to:

1. assess the current extent and condition of existing AtoN,
2. to develop a strategy for safe navigation on the Lough,
3. make recommendations on measures to be taken to achieve the strategy.

This report summarises the review process and is structured in the manner set out in the reference SIRA document, as follows:

- Description of the waterway and individual zones,
- Stakeholders present at the workshop and their relevant experience,
- Hazards and scenarios identified within each zone,
- Mitigating measures identified and recommended,
- The completed risk matrix,
- Any other amplifying information regarding the assessment.

An ArcGIS webpage and associated StoryMap has been developed to further support the review process. The StoryMap was fundamental to the stakeholder engagement events. Extracts from the StoryMap are included throughout the report.

1.2 Limitations of this Report / Risk Assessment

The risk assessment is made based on the available information at the time of the study. This includes background reading as referenced within the report, information provided as part of the stakeholder process and the local knowledge of the project team.

The risk assessment is based on the 2021 survey of the AtoN provided by ANDBC, NMDDC and Irish Lights. Sixty-six AtoN were surveyed as part of the Irish Lights survey, with thirty-two identified as 'not seen or missing'. Some survey information also couldn't be cross referenced with the Irish Lights Schedules.

There are numerous secondary / 3rd party AtoN outside of the primary arterial routes identified within this report. This report does not provide any recommendations for AtoN outside of the primary arterial routes other than to provide a more coordinated management procedure.

The risk reduction measures identified within this report are provided as a means of reducing the likelihood or consequence of the risk to a level that is considered "as low as reasonably practicable" (ALARP), rather than eliminating the risk. IALA Guideline G1138 – The use of the Simplified IALA Risk Assessment Method (SIRA) states that:

The definition of this ALARP level within the FSA (International Maritime Organization Formal Safety Assessment) is a level that is considered to be cost effective, technically practicable, and the associated costs should not be disproportionate to the benefits gained. This implies therefore that there should be a balance between the reduction in risk and the costs of achieving that reduction.

Different organizations will have differing views of what is reasonably practicable to reduce risk and what level of residual risk is acceptable; this balance is also referred to as risk appetite.

By definition in the FSA, in order to understand how control measures identified through a navigational risk assessment reduce the risk level to ALARP, it is also necessary to undertake a cost-effectiveness analysis. This is beyond the scope of SIRA as illustrated in Figure 1; the SIRA methodology facilitates identification of control measures that theoretically will reduce the risk, and an estimated cost of those control measures, but does not undertake a cost-effectiveness analysis. The control measures and associated costs, however, can be examined in a subsequent cost-effectiveness appraisal (Step 4 of the FSA), to identify if the resulting level of risk is ALARP in reality (i.e., technically feasible and reasonably affordable) and if the residual risk is acceptable for the organization. (IALA, 2022)

2. Description of the waterway and individual zones

In advance of the formal risk assessment process, an extensive review of available information was undertaken to provide a detailed understanding of the characteristics and features of the waterway and individual zones. This process included a review of historic books / records, fieldwork, maps, charts and digitised data, with the findings summarised in the follow sub-sections.

2.1 Strangford Lough

2.1.1 Description of the Lough

Strangford Lough is a natural sea lough located on the eastern coast of Northern Ireland as indicated in Figure 1 and Figure 2. The Lough is approximately twenty miles long (north / south orientation) and five miles wide (east / west orientation), with a three-metre tidal range. The Lough is bounded by the 'Ards Peninsula' to the east and the drumlin landscapes of Co Down to the west and is linked to the Irish Sea at the southern end of the Lough.

The entrance to the Lough from the Irish sea, 'The Narrows', has a reputation for being dangerous in certain wind and tidal combinations.



Figure 1. Strangford Lough Location (Map Source: Google Earth)

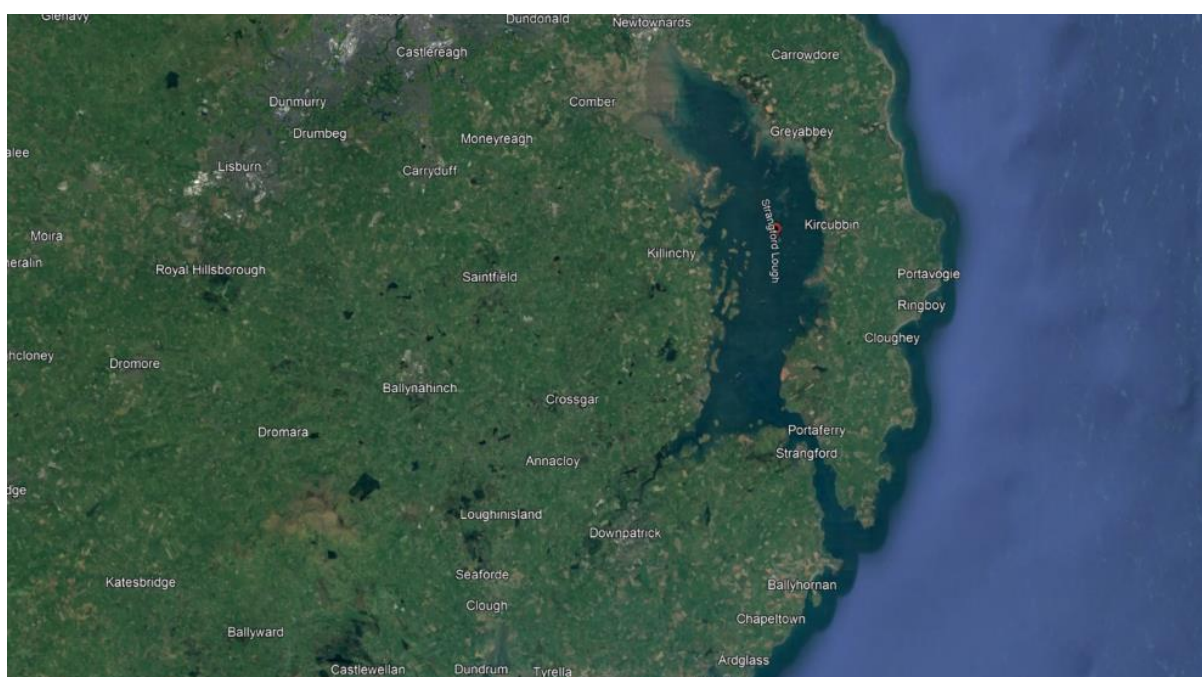


Figure 2. Strangford Lough (Map Source: Google Earth)

Strangford Lough has been an important waterway and local resource for millennia, evidenced by the archaeological record and findings around the Lough. From the mid-18th Century, the Lough developed on a

more commercial basis with ships plying their trades from northern England / Wales and southern ports. Towns and villages such as Kircubbin, Killyleagh, Downpatrick, Strangford and Portaferry developed as trade increased.

2.1.2 Environmental Characteristics of the Lough

McErlean, McConkey and Forsythe report in the 2003 publication entitled, Strangford Lough: An archaeological survey of the maritime cultural landscape, that:

The contemporary lough is a relatively shallow coastal embayment connected to the Irish Sea via an 8km-long bedrock channel known as the Narrows. Surface currents here reach 8 knots (3.5m/s), while typical current speeds in the upper reaches are between 0.2 and 0.4m/s (DOENI 1993). The Narrows prevent the entry of waves from the Irish Sea and wave action within the lough is generated by local winds which are predominantly from the south and south-west. Carter and Newbould (1982) suggest an upper wave limit of 1.2m, while Ryan and Cooper (1998a) estimated by wave hindcasting a wave height of 1.5m for a storm event from the south-east. Tidal range in the lough reaches 3.5m on spring tides and 2m on neaps and is dominated by the M2 (semidiurnal) period. Little tidal lag is evident throughout the lough and no amplification of the tidal wave is apparent. Freshwater input is negligible in terms of hydrodynamics and sediment supply. The lough may therefore be characterised as a low-sediment supply, wave-dominated, tidal environment. (McErlean, 2003)

Strangford Lough is home to a wide range of marine habitats, with over 2,000 recorded species recorded (Department of Agriculture, Environment and Rural Affairs, 2023). Further to this, the Lough is one of only three designated Marine Nature Reserves in the United Kingdom and includes a wide range of other environmental designations, namely:

- Strangford Lough Area of Special Scientific Interest (ASSI) [numerous]
- Strangford and Lecale Lough Area of Outstanding Natural Beauty (AONB)
- The Dorn Nature Reserve
- Strangford Lough Ramsar Site
- Strangford Lough Special Area of Conservation (SAC)
- Strangford Lough Special Protection Area (SPA)
- Strangford Lough Marine Protection Area (MPA)

A selection of the environmental designations are shown in Figure 3.

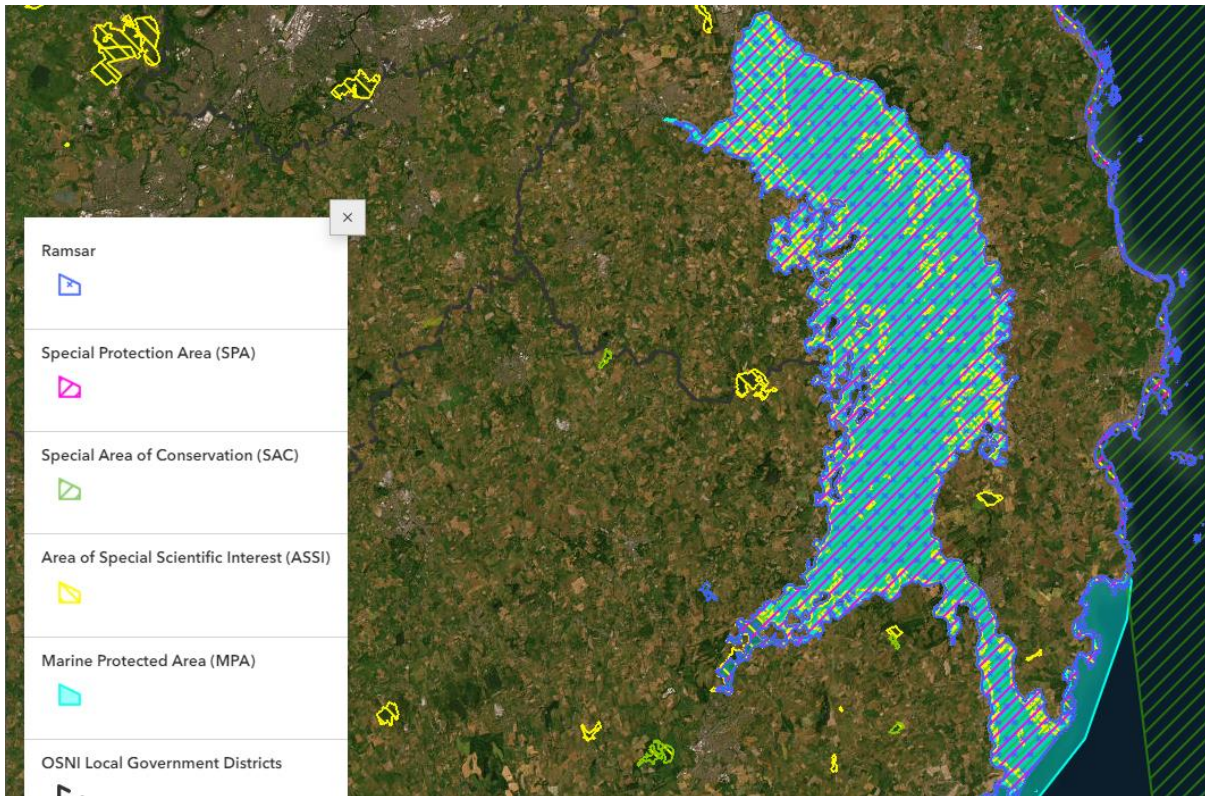


Figure 3. Environmental Designations

2.1.3 Navigation within the Lough

Navigation within the Strangford Lough varies from small watercraft to yachting, with the Strangford Ferry and larger vessels also navigating within the Lough. Chart 5612, as issued by the United Kingdom Hydrographic Office, covers Strangford Lough and the eastern shore of the Ards Peninsula. A snippet of the associated chart is included under Figure 4.

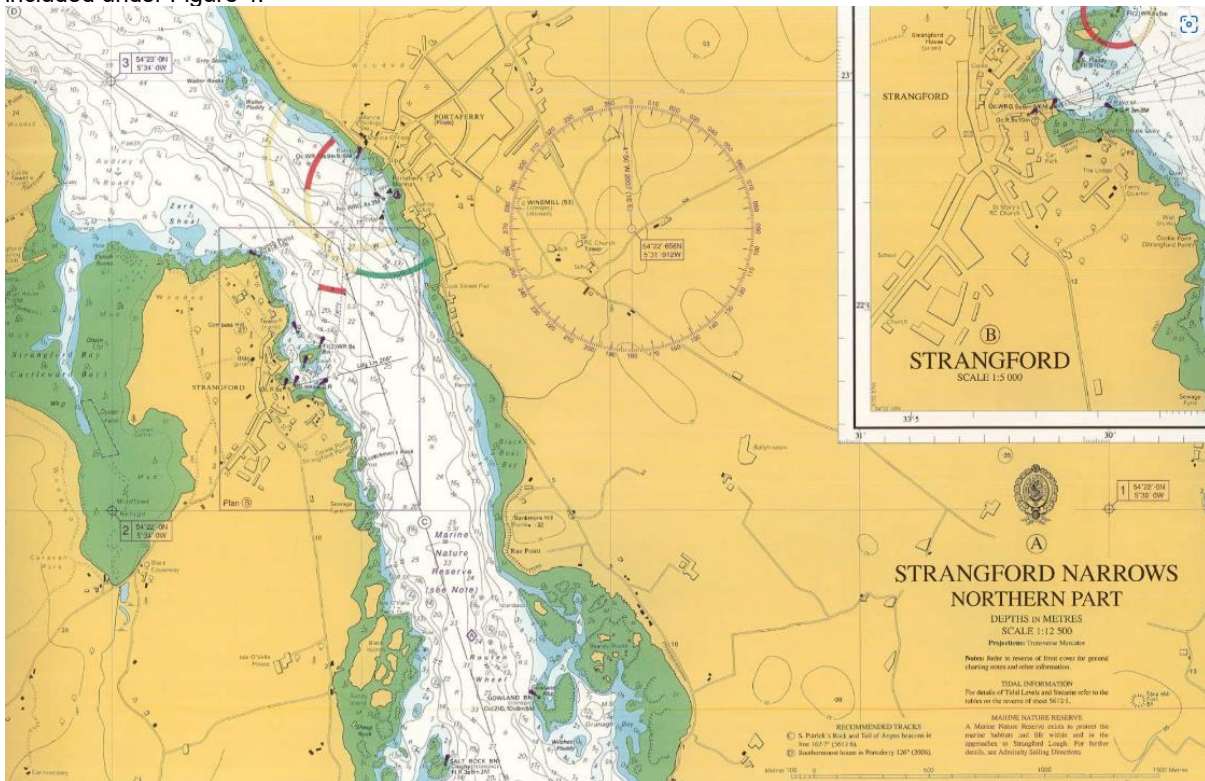


Figure 4. Admiralty Chart 5612

The primary arterial routes (navigation passages) within Strangford Lough are identified in Figure 5. The primary route into and out of the Lough from the Irish Sea is via ‘The Narrows’, a narrow section of Lough linking the main

body of the Lough to the Irish Sea. On entering the main body of the Lough, the primary navigation passages are to the north, towards the main body of the Lough, or to the west, along the Killyleagh / Quoile passageway. On entering the main body of the Lough, the primary passageway to the north proceeds towards 'Long Sheelah' at which point navigation is primarily to the north-east towards Kircubbin or the north-west towards Mahee Island. Further secondary 'local' routes such as Ringhaddy Sound and Bird Island Passage, are available off the primary arterial routes.



Figure 5. Primary Arterial Routes

2.1.4 Hazards within the Lough

Although the Lough provides many opportunities to explore, there are also many known hazards to navigation within the Lough. This is highlighted by the number of recorded shipwrecks within Strangford Lough. The Northern Ireland Open Data Portal, and digitised data from an archive of recorded shipwrecks put together by recreational divers, indicate 137 recorded wrecks. A snapshot of the dataset is shown in Figure 6, with the data provided in Appendix A.

No	Name	Date	Location	Circumstance of loss
1	Agnes	1823	Strangford Bar	Abandoned waterlogged
2	The Airth	1804	Off Strangford	Not known
3	Alisdair	1945 - 46	Ringhaddy Sound	Caught fire and sank
4	Andrew Savage	1812	Portaferry River (narrows)	Struck rock and sank
5	Ann	1766	Entrance to Strangford lough	Ran aground
6	Ann	1766	pladdies	Foundered
7	Ann	1813	Strangford Bar	Wrecked
8	The Ann & Bell	1803	Strangford	Not known
9	Argent	1850	In Strangford Lough	Not known
10	Aurora	1840	Off Strangford	Sank
11	Brother Jonathan	1854	Rocks near Portaferry	Wrecked following collision
12	The Brothers	1774?	On Strangford Bar	lost
13	The Brothers	1817	Near Strangford	Totally lost
14	The Catherine	1802	Near Strangford	Not known

Figure 6. Wrecks and Maritime Casualties

The wreckage date has been incorporated within the ArcGIS platform as indicated in Figure 7 (orange symbols indicate approximate location due to the exact location not being confirmed within the available data sets).

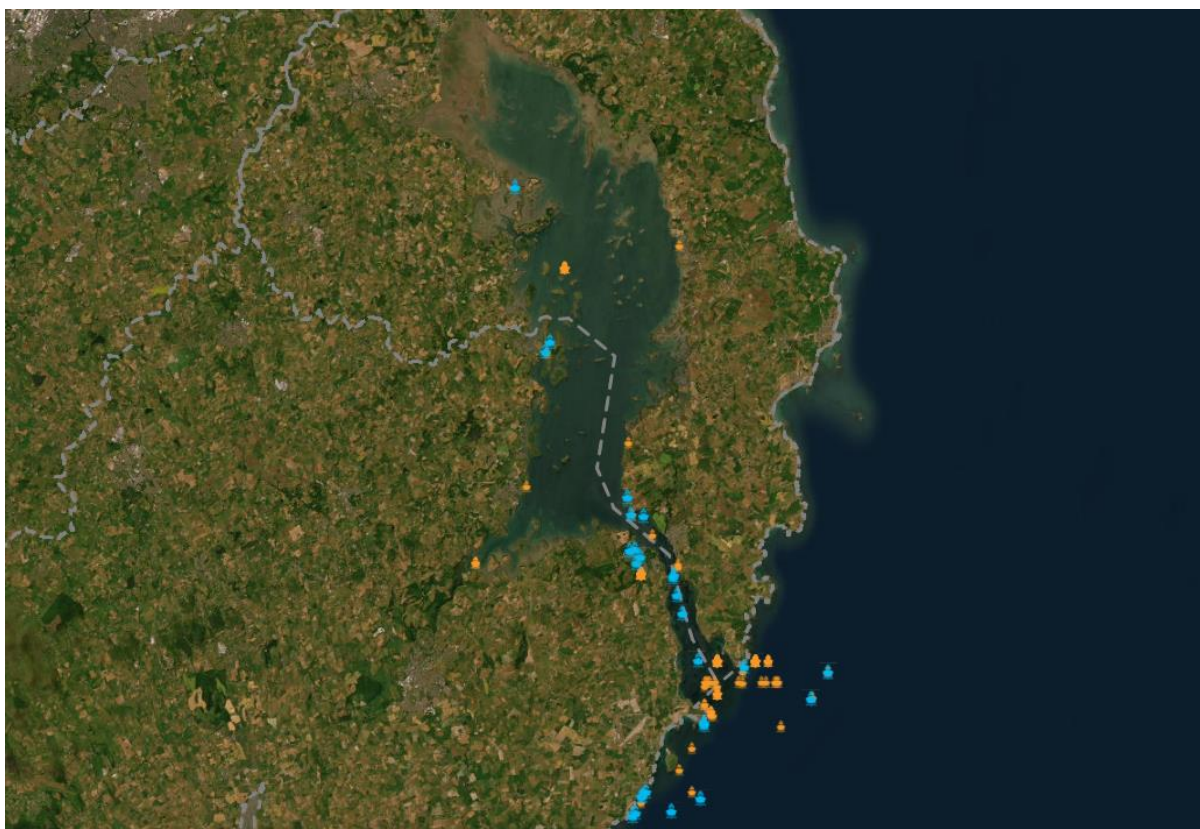


Figure 7. Wreckage Data

2.1.5 AtoN within the Lough

Vessels have been piloted by seafarers using local knowledge and a range of navigation marks for centuries. Before the commercial development of the Lough in the 18th & 19th centuries the Lough was primarily a local resource for fishing, lobsters and movement of cattle to islands. Boats would have kept close to shore so local landmarks hills, stands of trees, rock etc would be visible and used as waymarks or leading lines.

The first definitive references to the use of bespoke aids to navigation appear on an anonymous chart dating from c1580 which identifies rocks in the 'river' between Strangford and the open sea, and indicates the principal hazards, such as Angus Rock, Garter Rock etc as being 'marked.'

Johnstons Chart of 1755 concentrates on the Narrows and identifies markers fringing the Narrows.

Subsequent charts, Nimmo's c1821, Mudge and Frazer 1852, 1854 and 1860, continued to improve navigation with the addition of bathymetry, shore features and marking additional navigational features as they were erected. Hoskyn's survey 1859 – 1860 added further information in relation to poles, perches and beacons in the Narrows and the Lough.

Navigation aids can be found on the 1846 – 1862 Second edition, 6" County Series Map show the use of poles, perches and cairns at a number of locations within the Lough, and by the Third Edition 1901-1907 the use of aids is more widespread to include pladdies and shoals not marked in the earlier maps.

The erection of the various AtoN developed over time. Some were erected by local landlords, others by fishermen and sailing clubs and those by statutory organisations, such as the Ballast Board, Commissioners of Irish Lights, and latterly by the Local Councils. As such, the AtoN within the Lough vary in both style and condition, with several of the previously recorded aids no longer able to be located. Each AtoN has been assigned a reference ID, name and number by Irish Lights, with a register produced, as indicated in Figure 8. The formal register is included in Appendix B.

STRANGFORD LOUGH

Project number: 60705982

AtonNumber	AtonName	LLA/Organisation	Port/Area Name	AtonType/Name	AtonSubType/Name	Character	Aton/ClassName	Position/Longitude	Position/Latitude	Provider
LA0199.5000	Water Quality Mark	Ards and North Down Borough Council	Strangford	Buoy (Lighted)	Special Mark	Fl Y 10s	Permanent Aton	005°38.161'W	54°31.573'N	Ards and North Down Borough Council
LA0199.4000	Scrabo Tower Aero	Ards and North Down Borough Council	Strangford	Beacon (Lighted)	Aircraft Warning	Aero FR	Permanent Aton	005°42.921'W	54°34.819'N	Ards and North Down Borough Council
LA0199.3000	Whaup Rock	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent Aton	005°36.804'W	54°31.870'N	Ards and North Down Borough Council
LA0199.1000	Bird Point	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent Aton	005°37.587'W	54°30.600'N	Ards and North Down Borough Council
LA0199.0000	Mahee Point	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Sectored Light	LFL W/FRG 6s	Permanent Aton	005°37.149'W	54°30.419'N	Ards and North Down Borough Council
LA0198.9000	Downey's Rock	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent Aton	005°35.732'W	54°30.363'N	Ards and North Down Borough Council
LA0198.8500	Downey's Pladdy	Ards and North Down Borough Council	Strangford	Buoy (Unlighted)	Buoy (Unlighted)		Permanent Aton	005°35.864'W	54°29.026'N	Ards and North Down Borough Council
LA0198.8000	Sheehals Island	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent Aton	005°34.384'W	54°30.303'N	Ards and North Down Borough Council
LA0198.7000	Gull Rock Pladdy	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°37.093'W	54°30.301'N	Ards and North Down Borough Council
LA0198.6000	Gull Rock	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°37.197'W	54°30.132'N	Ards and North Down Borough Council
LA0198.5000	Rig Pladdy	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent Aton	005°36.620'W	54°29.869'N	Ards and North Down Borough Council
LA0198.4600	Kircubbin Speed Limit	Ards and North Down Borough Council	Strangford	Buoy (Unlighted)	Special Mark		Permanent Aton	005°32.705'W	54°29.486'N	Ards and North Down Borough Council
LA0198.4400	Kircubbin Pole 2	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°32.620'W	54°29.572'N	Ards and North Down Borough Council
LA0198.4000	Kircubbin Pole	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°32.733'W	54°29.696'N	Ards and North Down Borough Council
LA0198.3000	Spar Near Lythe Rock	Ards and North Down Borough Council	Strangford	Buoy (Unlighted)	Buoy (Unlighted)		Permanent Aton	005°37.747'W	54°29.706'N	Ards and North Down Borough Council
LA0198.2800	Rainey Island West	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.937'W	54°29.632'N	Ards and North Down Borough Council
LA0198.2700	Rainey Tide Warning	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Cable / Pipeline Marker		Permanent Aton	005°38.682'W	54°29.455'N	Ards and North Down Borough Council
LA0198.2500	Rainey Island North	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.516'W	54°29.674'N	Ards and North Down Borough Council
LA0198.2000	Rainey Island East	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.356'W	54°29.645'N	Ards and North Down Borough Council
LA0198.1500	Call Island	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Stone Beacon		Permanent Aton	005°38.134'W	54°29.642'N	Ards and North Down Borough Council
LA0198.1000	Call Island West	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.252'W	54°29.658'N	Ards and North Down Borough Council
LA0198.0500	Spar J West of Trasnagh	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.238'W	54°29.094'N	Ards and North Down Borough Council
LA0198.0000	Trasnagh N/V	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°37.799'W	54°29.116'N	Ards and North Down Borough Council
LA0197.9500	Newtown Spar	Ards and North Down Borough Council	Strangford	Buoy (Unlighted)	Buoy (Unlighted)		Permanent Aton	005°35.460'W	54°29.526'N	Ards and North Down Borough Council
LA0197.9000	Newtown Rock	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent Aton	005°35.344'W	54°29.532'N	Ards and North Down Borough Council
LA0197.8100	Pladdy Lug	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Stone Beacon		Permanent Aton	005°30.812'W	54°19.826'N	Ards and North Down Borough Council
LA0197.8000	White Blank Pladdy	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°33.879'W	54°29.440'N	Ards and North Down Borough Council
LA0197.7000	Newtown Rock Spar	Ards and North Down Borough Council	Strangford	Buoy (Unlighted)	Buoy (Unlighted)		Permanent Aton	005°35.507'W	54°29.540'N	Ards and North Down Borough Council
LA0197.7400	Round Skirt West	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°35.320'W	54°29.233'N	Ards and North Down Borough Council
LA0197.7000	Round Skirt Rock	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent Aton	005°35.017'W	54°29.215'N	Ards and North Down Borough Council
LA0197.6000	Skirt Rock Pladdy	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°34.684'W	54°29.211'N	Ards and North Down Borough Council
LA0197.5000	Dulisk Rock	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°33.962'W	54°29.066'N	Ards and North Down Borough Council
LA0197.4000	Michaels Rock	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent Aton	005°35.399'W	54°28.962'N	Ards and North Down Borough Council
LA0197.3000	Washer Rock	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent Aton	005°34.947'W	54°28.946'N	Ards and North Down Borough Council
LA0197.2100	Spar Near Braddock Island	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.472'W	54°28.873'N	Ards and North Down Borough Council
LA0197.2000	Braddock Pole 3	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.426'W	54°28.980'N	Ards and North Down Borough Council
LA0197.1000	Braddock Pole 2	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.398'W	54°28.964'N	Ards and North Down Borough Council
LA0197.0000	Braddock Pole 1	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.364'W	54°28.944'N	Ards and North Down Borough Council
LA0196.9500	Braddock Island	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.468'W	54°28.867'N	Ards and North Down Borough Council
LA0196.9000	Braddock Point	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.628'W	54°28.829'N	Ards and North Down Borough Council
LA0196.8700	Strangford YC Pole	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.882'W	54°28.974'N	Ards and North Down Borough Council
LA0196.8500	Strangford YC Speed Limit	Ards and North Down Borough Council	Strangford	Buoy (Unlighted)	Special Mark		Permanent Aton	005°38.297'W	54°29.060'N	Ards and North Down Borough Council
LA0196.8200	Sketrick South	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°38.542'W	54°29.128'N	Ards and North Down Borough Council
LA0196.8100	Spar Near Dead Mans Rock	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Metal Beacon (Non IALA Std)		Permanent Aton	005°36.709'W	54°28.888'N	Ards and North Down Borough Council
LA0196.8000	Dead Mans Rock	Ards and North Down Borough Council	Strangford	Beacon (Lighted)	East Cardinal	QFL (3) 10s	Permanent Aton	005°36.472'W	54°28.810'N	Ards and North Down Borough Council

Figure 8. Aton Register

There are thirty known lighted buoys / beacons within the Lough as indicated in Table 2. Twenty-four of these are included in the Irish Lights register (ID No included in the table), with the remaining six (as defined by Irish Lights ID No. 'NA') not included in the register. These include buoys in the Irish sea at the Lough entrance, Stone / Masonry Beacons, Poles and Perches and Angus Rock Lighthouse.

Table 2. Existing lighted Buoys / Beacons

No.	Irish Lights ID No.	Name	Type
1	NA	St Patrick's Rock	Beacon
2	NA	Strangford Safe Water Mark	Auxiliary Mark (Whistler)
3	NA	Bar Pladdy	South Cardinal
4	LA0188.0500	Angus Rock	Lighthouse
5	LA0188.1000	Dogtail Point	Lit beacon
6	LA0188.4000	Salt (Cloghy) Rock	Lateral Port
7	LA0188.5000	Gowland Rocks	Leading Light
8	LA0190.2000	Strangford Boat House Beacon	Lateral Port
9	NA	Swan Island N Pladdy	N Cardinal
10	NA	Swan Island S Pladdy	S Cardinal
11	NA	Swan Island	E Cardinal
12	LA0189.8000	Church Point	Lateral Port Stone Beacon
13	LA0190.9000	Ballyhenry Point	Lateral Starboard
14	LA0191.5000	Town Rock Killyleagh	Secotred light on tower
15	LA0194.0000	Limestone Rock	Lateral Port
16	LA0194.1000	Limestone Rock Pole	Lateral Port
17	LA0195.3500	Long Sheelagh	East Cardinal
18	LA0196.8000	Dead Mans Rock	East Cardinal

No.	Irish Lights ID No.	Name	Type
19	LA0199.0000	Mahee Point	Sectored Light Beacon
20	LA0196.1200	Kircubbin Approach Buoy Hoskyns Shoal	Lateral Starboard
21	LA0196.1300	Kircubbin Approach Buoy Sand Rock Pladdy	Lateral Port
22	LA0196.1400	Kircubbin Approach Buoy Roads Starboard	Lateral Starboard
23	LA0196.1500	Kircubbin Approach Buoy Roads Port	Lateral Port
24	LA0196.1100	Kircubbin Approaches Tip Reef	South Cardinal
25	LA0196.0000	Gransha Point*	Stone tower unlit
26	LA0195.1000	Craigyouuran	West Cardinal
27	LA0190.3000	Portaferry Outer Buoy	Lateral Starboard
28	LA0190.4000	Portaferry Marina Breakwater	Sectored light
29	LA0190.5000	Portaferry Pontoon Inner Buoy	Lateral Starboard
30	LA0190.6000	Portaferry Speed Limit Buoy	Special Mark

* Irish Lights Survey indicates Gransha Point ‘as remains of stone tower’, though recorded in the Irish Lights / Council schedule as unlit beacon.

A summary of the AtoN within the respective Council boundaries are indicated in Figure 9 and Figure 10. The dashed line on the images represents the Council boundary.

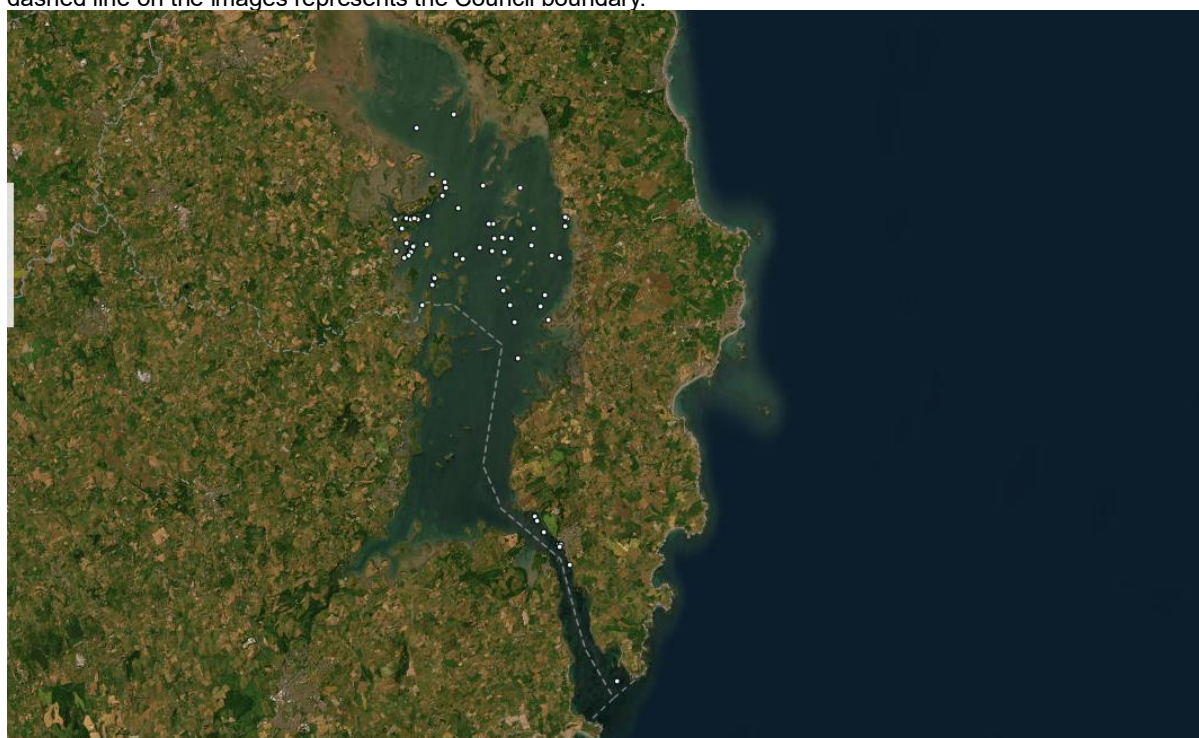


Figure 9. ANDBC AtoN Survey Map

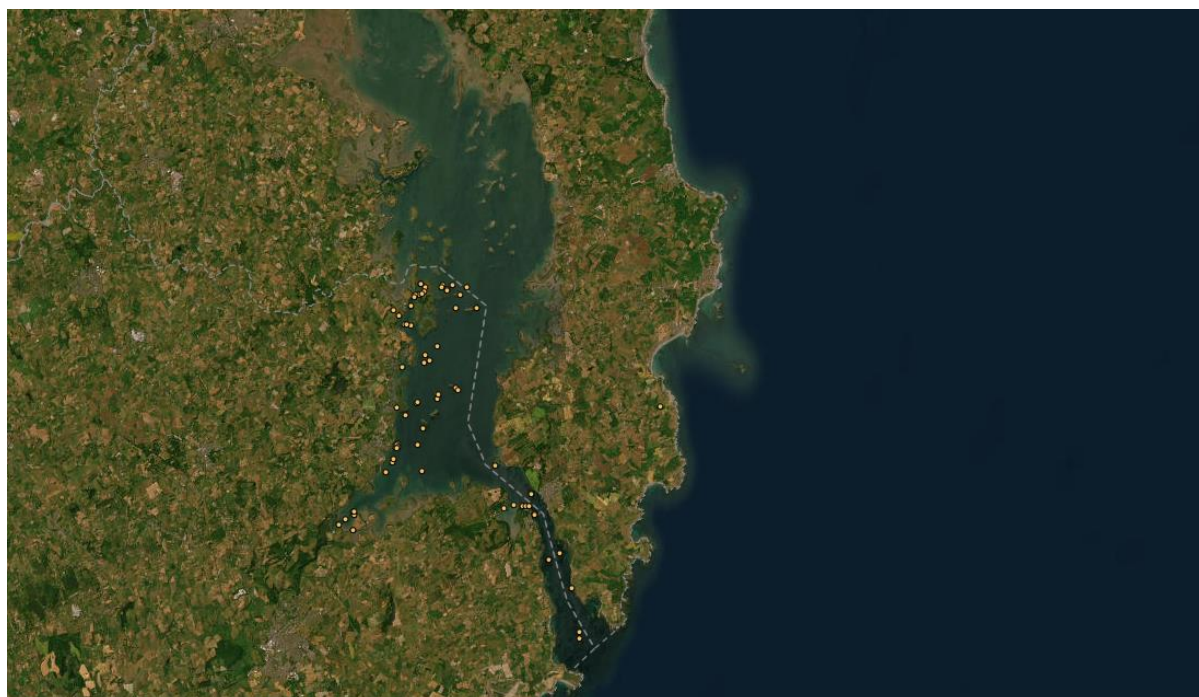


Figure 10. NMDBC AtoN Survey Map

A survey of the AtoN within the ANDBC and NMDDC boundaries was undertaken by Irish Lights in April 2021. The survey took the form of a visual inspection of the AtoN, a summary and imagery of the findings and a recommendation of works to be undertaken. An example of the record for an individual AtoN is provided in Figure 11, with the full survey records included in Appendix C. Several of the AtoN could not be located during the survey.



 Commissioners of IRISH LIGHTS Navigation and Maritime Services		Local AtoN Inspection Report		GP ID	7345
LLA	Ards and North Down Borough Council				
Local AtoN	Bradock Pole 2				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Defect found				
Defect Found:	Defect				
Working but not approved					
Light Defect					
Physical Defect	Renewal required				
ALS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Minor Discrepancy				
Photo		Contact Details			
		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			

Figure 11. ANDBC AtoN Survey Example

Following a review of the available information, the data was compiled into a central ArcGIS database as indicated in Figure 12. The ArcGIS platform provided a central location to store the available information on the waterway and individual zones and was subsequently used to assist in the risk assessment process (as described later in the report).

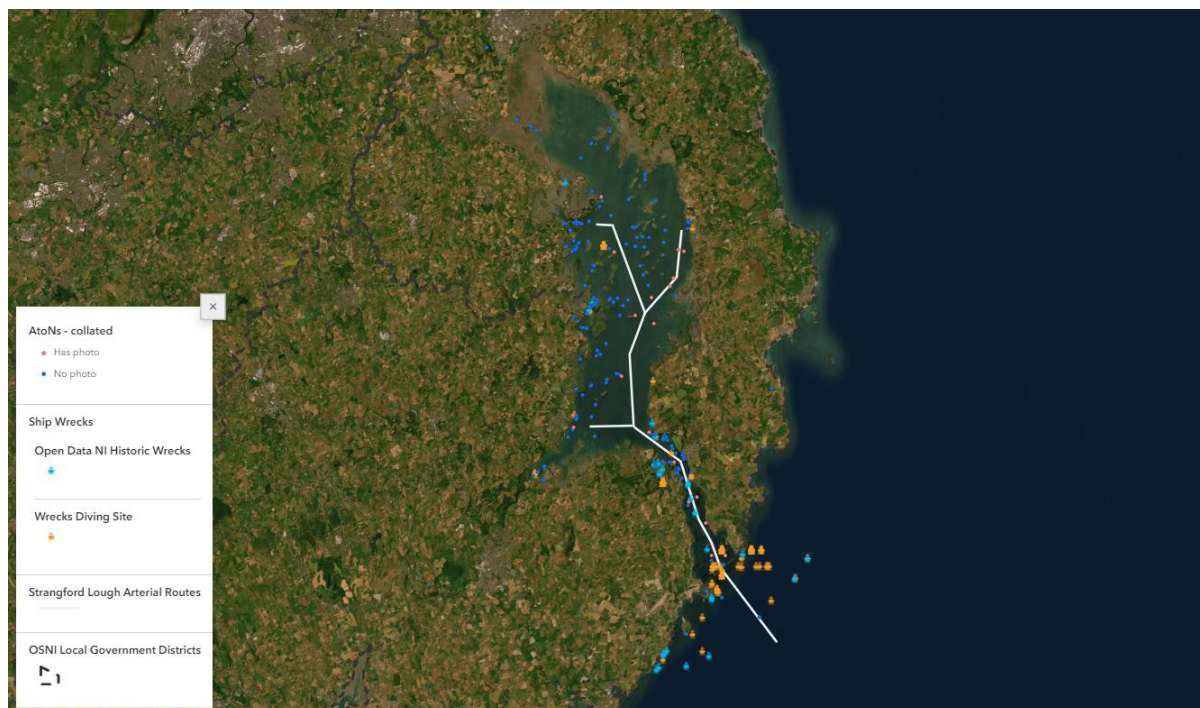


Figure 12. Collated Data

2.1.6 Constraints to Navigation within the Lough

There is a perception that the Lough is dangerous, not only in the narrows but in the broad Lough to the north.

Reeds Western Nautical Almanac notes

'Beware St Patricks Rock, Bar Pladdy and Pladdy Lug; also overfalls in the SE approaches and at the Bar, which can be dangerous when ebb is against strong onshore winds'.

The Irish Cruising Club Sailing Directions for the East and North Coast of Ireland states re the Narrows,

'It is always safe to enter, cut to leave on the ebb, into fresh onshore winds can be dangerous', 'However it is not always safe to depart – a departing yacht can be drawn into the overfalls against its will. These are the only circumstances in which Strangford Lough is actually dangerous'.

A yacht approaching the mouth of the narrows typically uses the Waypoint of the Strangford Safe Water Buoy at 54°18'.63N 05°28'.62W. This is some distance away from the narrows, circa 2.3 Km from the Bar Pladdy. There are no channel markings to guide visiting yachts, not familiar with the Lough.

The Sailing Directions advise that the broad Lough is worth a visit but with the proviso that

'The only drawback is the number of shoals and drying patches, known as pladdies, which are usually marked by beacons or poles when near a recognised fairway'.

It further states

'Mariners should take particular care as some of the poles and perches are subject to storm damage consequently they may be unreliable'.

The Sailing Directions contain a further caution

'It is unwise to sail further into the lough (beyond the narrows) without Chart 2156. Careful pilotage is necessary as so many of the islands and rocks are of a similar appearance.'

Compass courses cannot be relied upon owing to the set of the tides. Many rocks and pladdies are marked by poles or perches but these are unreliable'.

Low visibility or low light conditions add to the risk.

As such, there is a perception that visiting vessels often chose to bypass Strangford Lough and progress north to Donaghadee / Bangor or South to Ardglass / Carlingford.

2.2 Zone Identification

Like most other maritime waterways, Strangford Lough can be considered in different regions / zones in which the environmental conditions, volume of traffic and degree of risk vary. An assessment of the Lough has been undertaken to allow the differing regions / zones to be identified, using the criteria outlined in the IALA published Guideline on the use of the Simplified IALA Risk Assessment Method, and listed below:

- volume of traffic and mix,
- bathymetry (charts),
- geometry of routes in the area, traffic choke points and sharp bends,
- oceanographic, meteorological and environmental conditions,
- existing fixed and floating Aids to Navigation and routing measures,
- availability of VTS and pilotage,
- history of maritime incidents such as collisions and groundings,
- stakeholders of the zone.

Thirteen zones were identified within Strangford Lough as part of the review process as indicated in Figure 13.

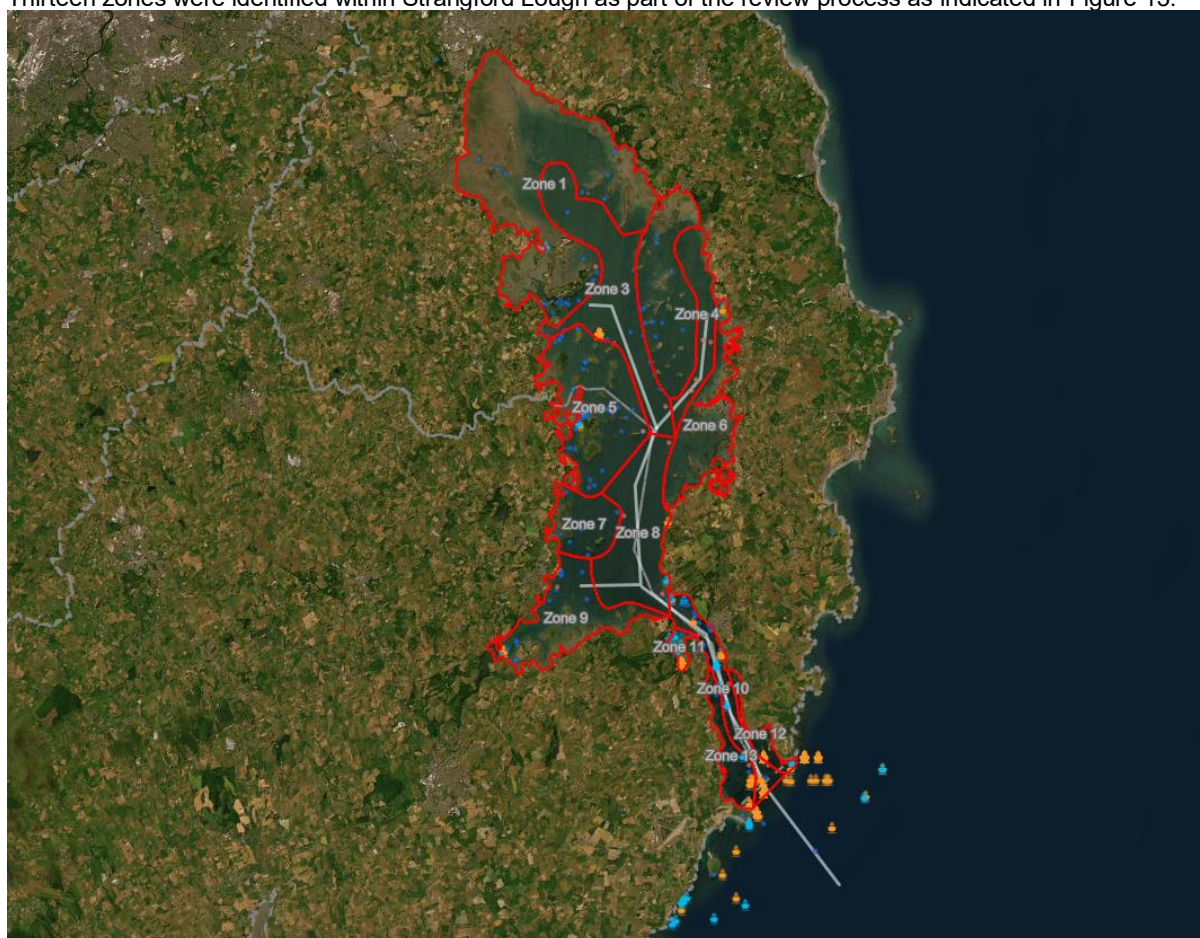


Figure 13. Zone Identification

A map of each zone, along with the key summary information is described within the following sub-sections.

Note that references to buoys, perches etc are a combination of those identified on the Admiralty Chart 5612, and the Irish Lights Register.

2.2.1 Zone 1: Strangford North

Table 3. Zone 1 Summary Information

Subject	Description
Zone	Zone 1: Strangford North
Traffic and mix	Small yachts, dinghies in North. No commercial traffic. Significant large yacht use on South-West corner of zones, 2no Large Yacht Clubs.
Bathymetry / Charts	Admiralty Chart No 2156, The northern portion dries out and for the main part most is <2m. Extensive mud flats.
Geometry, choke points, sharp bends	Sketrick Island, Down Cruising Club areas narrow channels.
Oceanic, meteorological, environmental condition	Significant shallows around the perimeter. Wide area which has long fetch circa 7.5km, for East and West winds and 17.5km for southerly / south easterly winds.
Fixed / floating aids to navigation, routing measures	Whaup Rock Beacon ID LA0199.3000 IL Register Mahee Island Sector Light – ID LA0199.0000 IL Register Rainey Island Tide Warning – ID LA0198.2700 IL Register Rainey Island North – ID LA0198.2500 IL Register Rainey Island East – ID 0198.2000 IL Register Rainey Island West – ID LA0198.2800 IL Register Spar Lythe Rock – ID LA0198.3000 IL Register Calf Island West – ID 0198.1000 IL Register Calf Island – ID LA0198.1500 IL Register Rig Pladdy – ID LA0198.5000 IL Register. Gull Rock – ID LA0198.6000 IL Register Gull Rock Pladdy – ID LA0198.7000 Sketrick South ID LA0196.2000
Availability of VTS and pilotage	No Pilots on Lough. Perches / Rods / Poles as above. Buoys: Identified on AC 5612 at 54°.31'.58"n 5°.38'.15"W, but not recorded elsewhere.
History of incidents, collisions, groundings	None recorded
Stakeholders	Ards and North Down Borough Council, Comber River Anchorage, Newtownards Sailing Club, Down Cruising Club. Strangford Sailing Club.



Figure 14. Zone 1 Boundary Extents

2.2.2 Zone 2: South Island – Slave Rock

Table 4. Zone 2 Summary Information

Subject	Description
Zone	Zone 2: South Island – Slave Rock
Traffic and mix	Small yachts, dinghies in North. No commercial traffic. Significant large yacht use on South-West corner of zones, 2no Large Yacht Clubs.
Bathymetry / Charts	Admiralty Chart No 2156, Average Depths circa 6m below CD, with isolated holes 10 – 22m below CD.
Geometry, choke points, sharp bends	Bird Island Passage.
Oceanic, meteorological, environmental condition	An area of dispersed reefs, pladdys and rocks that do not cover, rocks which cover and uncover, extending in a North / South orientation.
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst): Downey’s Rock (Pe West end), ID LA0198.9000 IL Register Downey’s Pladdy Buoy ID LA0198.8500 IL Register Sheelah’s Island (Beacon, east end), ID LA0198.8000 IL Register Newton Rock, (Pe west end), ID LA0197.9000 IL Register Newtown Rock Spar ID LA0197.75000 IL Register Newtown Spar ID LA0197.9500 IL Register Whitebank Pladdy (Po centre), ID LA0197.8000 IL Register Round Scart Rock (Pe east side), ID LA0197.7000 IL Register Round Skart West ID LA0197.7400 IL Register Skart Rock Pladdy ID LA0197.6000 Dullisk Rock (Po N end), ID LA0197.5000 IL Register Michaels Rock (Pe N end), ID LA0197.4000 IL Register Bird Point ID LA0199.1000 IL Register Washer Rock (Pe), ID LA0197.3000 IL Register West Rock Spar ID LA0190196.3800 IL Register Slave Rock (Po N end), ID LA0196.3000 IL Register Slave Spar ID LA0196.2500 IL Register Kircubbin Approaches Tip Reef ID LA0196.1100 IL Register
Availability of VTS and pilotage	No Pilots on Lough. No VTS. Perches, Poles and Buoys.
History of incidents, collisions, groundings	None recorded
Stakeholders	Ards and North Down Borough Council, Comber River Anchorage, Newtownards Sailing Club, Down Cruising Club, Strangford Sailing Club.



Figure 15. Zone 2 Boundary Extents

2.2.3 Zone 3: Main Passage West

Table 5. Zone 3 Summary Information

Subject	Description
Zone	Zone 3: Main Passage West
Traffic and mix	Small yachts, dinghies in North, main route from Ballyhenry Point north to the major yacht clubs on West shore. Fishing traffic.
Bathymetry / Charts	Admiralty Chart No 2156, 5m approximate boundary of zone, depths in channel between 10m - 40m below CD.
Geometry, choke points, sharp bends	Bird Island Passage, from approx. - N54°, 28',54". 5°.35'.00"W. to N5°,28'.00", 5.33'.80"W.Mahee Roads Anchorage.
Oceanic, meteorological, environmental condition	Flows North / South 1.5knots.
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst) – none in channel, on islands / rocks in adjacent zones. Rigg Pladdy (Pe). ID LA0198.5000 IL Register Strangford YC Pole ID LA0196.8700 IL Register
Availability of VTS and pilotage	No Pilots on Lough. No VTS. Perches / Rods. Buoys - Lateral Mark N54°.31'.60", 5°.38'.14"W Recommended tracks: As per AC 5612: D - Mahee Point Beacon on 339.5° from point N5°.26'.99", 5°. 34'.96". E – White Cairn on Calf Island inside right edge of trees on Rainey Island 274°, From N5°.29'.55", 5°. 36'.60".
History of incidents, collisions, groundings	TBC
Stakeholders	Ards and North Down Borough Council, Comber River Anchorage, Newtownards Sailing Club, Down Cruising Club, Strangford YC.



Figure 16. Zone 3 Boundary Extents

2.2.4 Zone 4: Main Passage East

Table 6. Zone 4 Summary Information

Subject	Description
Zone	Zone 4: Main Passage East
Traffic and mix	Small yachts, dinghies in North, main route from Ballyhenry Point north to Kircubbin. Fishing traffic.
Bathymetry / Charts	Admiralty Chart No 2156, 5m approximate boundary of zone, depths in channel between 6m - 24m below CD.
Geometry, choke points, sharp bends	Bird Island Passage, emerges from West from approx. - N5°,28'.00", 5.33'.80"W. Kircubbin Roads Anchorage.
Oceanic, meteorological, environmental condition	No unusual conditions.
Fixed / floating aids to navigation, routing measures	Kircubbin Approaches Tip Reef ID LA0196.1100 IL Register S Cardinal Kircubbin Approaches Hoskyns Shoal – ID LA0196.1100 IL Register (Lateral Starboard). Kircubbin Approaches Sand Rock Pladdy – ID LA0196.1300 IL Register (Lateral Port) Kircubbin Approaches Buoy Roads Starboard – ID LA0196.1400 IL Register Kircubbin Approaches Buoy Roads Port – ID LA0196.500 IL Register (Lateral Port) Kircubbin Speed Limit ID LA0198.4600 IL Register Perches (Pe), Poles (Po), Posts (Pst) – on islands / rocks in adjacent zones.
Availability of VTS and pilotage	No Pilots on Lough. Perches / Rods: Rigg Pladdy (Pe). Buoys: None. Recommended tracks: As per AC 5612: C – Gransha Point 185°
History of incidents, collisions, groundings	TBC
Stakeholders	Ards and North Down Borough Council, Comber River Anchorage, Kircubbin Sailing Club, Kircubbin / Harbour.



Figure 17. Zone 4 Boundary Extents

2.2.5 Zone 5: Trasnagh – Long Sheela

Table 7. Zone 5 Summary Information

Subject	Description
Zone	Zone 5: Trasnagh – Long Sheela
Traffic and mix	Mixed use, dinghies, large yachts, kayaking Fishing traffic, lobster/ crab.
Bathymetry / Charts	Admiralty Chart No 2156, From drying shore to west to edge of main channel Zone 3 in East. Depths vary, 0m – 38. General depths 4 – 17m.
Geometry, choke points, sharp bends	Ringhaddy – Trasnagh Island, main route through west shore and islands. Many private / Yacht Club moorings. Passage between Parton and Roe Island necessitates 90° turn to West. Very busy waterway. Scott's Hole Anchorage.
Oceanic, meteorological, environmental condition	No unusual conditions.
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst) – Braddock Point ID LA0196.9000 IL Register Braddock Poles Nos 1 – 3 ID LA0197.0000, LA0197.1000, LA0197.2000 Spar Nr Braddock Island ID LA0197.2100 IL Register Dead Mans Rock (Pe), ID LA0196.8000 IL Register now E Cardinal Spar Nr Dead Mans Rock ID LA0196.8100 Sand Rock ID la0195.7000 il Register Sand Rock Pladdy (Po), ID LA0195.9000 IL Register Hadd (Po), ID LA0195.8000 IL Register Janes Rock (Po), ID LA0195.4000 IL Register Long Sheelah (Po & Pe), ID LA0195.3500 & LA0195.5000 IL Register, E Cardinal and Pole Parton (po) ID LA0196.5000 IL Register Verde Rocks (Pe), ID LA0194.5000 IL Register Back Rock Sign ID LA0194.3500 IL Register Brown Rock (Po), ID LA0194.4000 IL Register Brownrock Pladdy (Po). ID LA0194.3000 IL Register Roe ID LA0196.6000 IL Register Roe Spar ID LA0196.6500 IL Register Trasnagh NW ID LA0198.0000 IL Register Spar W of Trasnagh ID LA0198.0500 Dunsy Island Pole ID LA0194.9900 IL Register Dunsy Island Pole 2 ID LA0194.9900 IL Register Islandmore Cable ID LA0194.9700 Islandmore SW ID LA0194.9000 IL Register Ringhaddy speed limit 1 ID LA094.7000 IL Register Ringhaddy Speed Limit 2 ID LA0194.9600 IL Register Ringhaddy Cable East ID LA0194.9500 IL Register Ringhaddy Cable West ID LA0194.9400 IL Register Ringhaddy Pole ID LA0194.9200 IL Register Ringhaddy Pontoon IDLA0194.8500 IL Register Ringhaddy Rear Leading Light ID LA0194.8100 IL Register Ringhaddy Front Leading Light ID LA0194.8000 IL Register Ringhaddy Mooring Buoy ID LA0194.7500 IL Register
Availability of VTS and pilotage	No Pilots on Lough. Buoys: None. Recommended tracks: As per AC 5612: Ruined Windmill on 318° to Ringhaddy to clear Limestone rock in adjacent Zone 6 for course to Ringhaddy.
History of incidents, collisions, groundings	Not known
Stakeholders	Ards and North Down Borough Council, Comber River Anchorage, Kircubbin Sailing Club, Kircubbin / Harbour.

Subject

Description

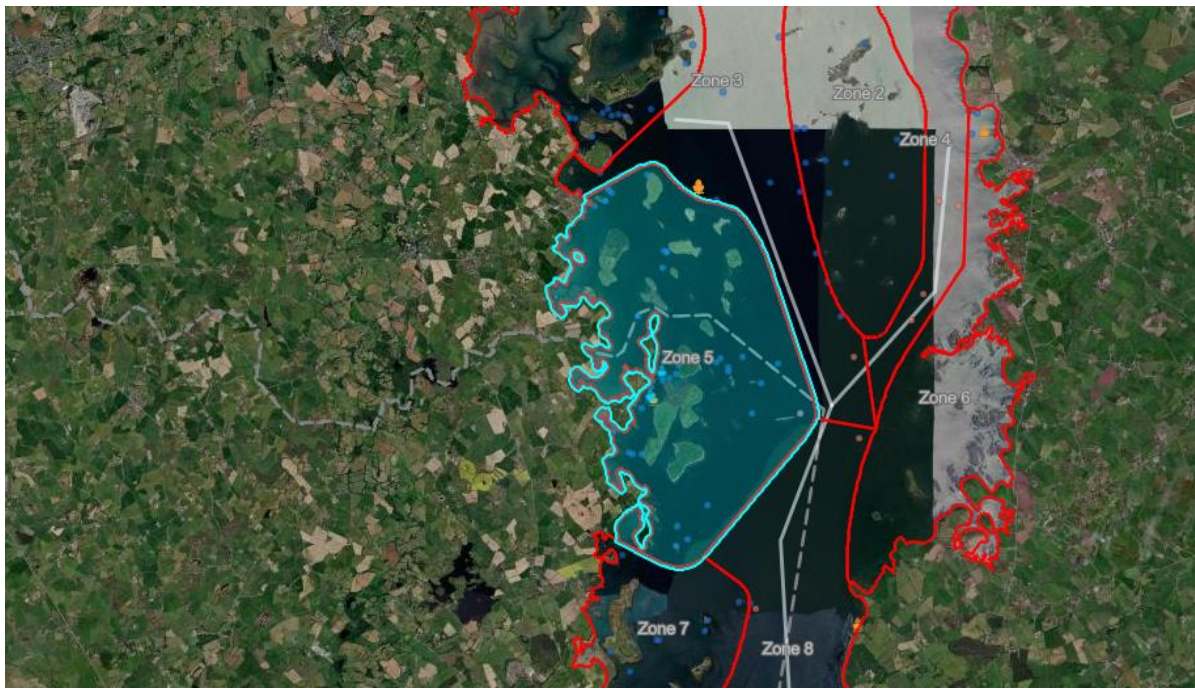


Figure 18. Zone 5 Boundary Extents

2.2.6 Zone 6: Kircubbin Bay – Ringburr Point

Table 8. Zone 6 Summary Information

Subject	Description
Zone	Zone 6: Kircubbin Bay – Ringburr Point
Traffic and mix	Small boat, lobster / crab fishing.
Bathymetry / Charts	Admiralty Chart No 2156, From drying shore to East to edge of main channel Zones 4 & 7 in East. Depths vary, 0m – 26. General depths 2 – 8m.
Geometry, choke points, sharp bends	No passage, area comprises extensive rock and mud drying areas, isolated pladdies. No anchorages.
Oceanic, meteorological, environmental condition	No unusual conditions.
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst) – Marker – Gransha Point, ID LA0196.0000 IL Register Craigyouran (Pe). ID LA0195.1000 IL Register now W Cardinal
Availability of VTS and pilotage	No Pilots on Lough. Buoys: None. Recommended tracks: As per AC 5612: C- Gransha Point 185° to Kircubbin Roads.
History of incidents, collisions, groundings	Not Known
Stakeholders	Ards and North Down Borough Council, Kircubbin Harbour.

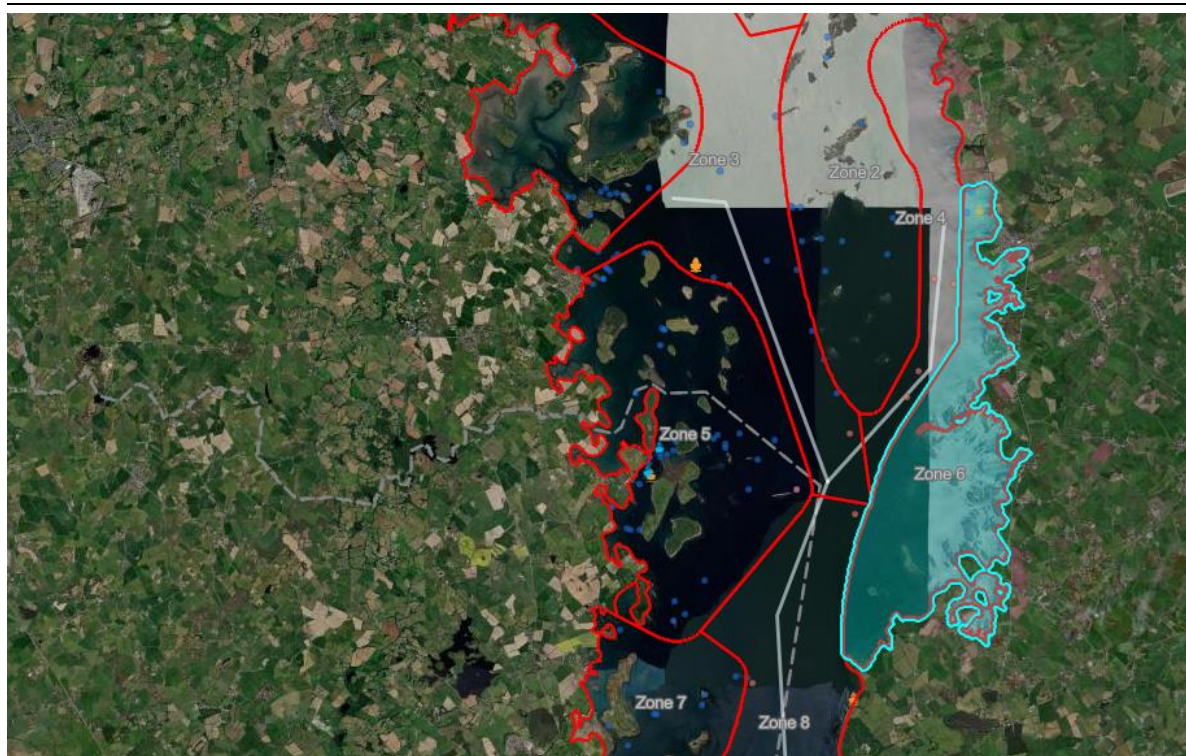


Figure 19. Zone 6 Boundary Extents

2.2.7 Zone 7: Long Rock – Ringdufferin Castle

Table 9. Zone 7 Summary Information

Subject	Description
Zone	Zone 7: Long Rock – Ringdufferin Castle
Traffic and mix	Yachts, cruisers, Dingies. Small boat, lobster / crab fishing.
Bathymetry / Charts	Admiralty Chart No 2156, Area comprises the West shore, and the islands between Brownrock Pladdy, Limestone Rock and Holm Bay. Depths vary, 0m – <2m – and drying near shore. General depths 5 - 17m Deeps of 26, 27 & 38m.
Geometry, choke points, sharp bends	No passage, area comprises extensive rock and mud drying areas, isolated pladdies. No anchorages. East Down Yacht club accessed by narrow shallow route, circa <2m below CD. Passage inside Long rock, Don O'Neill Island, Limestone Pladdy and Limestone rock in 9.8m – 14m, 27m, direction circa 028°, rocks 4m in centre of route.
Oceanic, meteorological, environmental condition	No unusual conditions.
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst) – Simmy Perch (Pe), ID LA0194.2000 IL Register Limestone Rock (Lighted beacon tower QR 3M on east point), ID LA0194.0000 IL Register Limestone Pladdy (Po) ID LA0193.600 IL Register., Limestone Rock Pole ID LA0194.1000 IL Register Limestone South ID LA0193.7000 IL Register Selk Rock (Pe) ID LA0193.4000 IL Register Selk South ID LA0193.5000 IL Register Long Rock South ID LA0191.2500 East Down Port ID LA0193.3000 East Down Starboard ID LA0193.2000 East Down Speed Limit ID LA0193.1000
Availability of VTS and pilotage	No Pilots on Lough. Buoys: none. Recommended tracks: None.
History of incidents, collisions, groundings	Not Known
Stakeholders	Ards and North Down Borough Council, Kircubbin Harbour.



Figure 20. Zone 7 Boundary Extents

2.2.8 Zone 8: Main Channel Long Sheelah – Audley’s Point

Table 10. Zone 8 Summary Information

Subject	Description
Zone	Zone 8: Main Channel Long Sheelah – Audley’s Point
Traffic and mix	All vessels.
Bathymetry / Charts	Admiralty Chart No 2156, Area comprises the main channel from Audley’s Point / Ballyhenry to Long Sheelagh. Depths vary, 0m – <49m – and drying near shore. General depths 11 - 22m Deeps of 38, 48 – 49 experienced.
Geometry, choke points, sharp bends	Major route into lough upstream of Strangford / Portaferry. Chapel Island Roads 2no anchorages circa 13, 20m deep. Recommended tracks and clearing lines AC 2156: E – Perch on long Sheelagh 355.5° F – Portaferry Windmill open on Chapel Island clears Skate Rock. Town Rock beacon 271° for Killyleagh.
Oceanic, meteorological, environmental condition	Tidal streams 1knot ebb tide, 2knots on flood tide in vicinity of Chapel Island roads. Refer to chart. Oyster beds.
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst) – Ballyhenry Point - Lighted beacon / lateral starboard QG 3M. ID LA0190.9000 IL Register
Availability of VTS and pilotage	No Pilots on Lough. Buoys: none. Recommended tracks and clearing lines AC 2156: E – Perch on long Sheelagh 355.5° F – Portaferry Windmill open on Chapel Island clears Skate Rock. Town Rock beacon 271° for Killyleagh.
History of incidents, collisions, groundings	Wreck Ballywhite bay
Stakeholders	Ards and North Down Borough Council, Newry Mournne and Down Council, Marine Nature reserve



Figure 21. Zone 8 Boundary Extents

2.2.9 Zone 9: Quoile

Table 11. Zone 9 Summary Information

Subject	Description
Zone	Zone 9: Quoile
Traffic and mix	All vessels.
Bathymetry / Charts	Admiralty Chart No 2156, Area comprises the main channel from Audley's Point to Killyleagh and Quoile Barrage. Depths vary, 0m – <20m – and drying South and West shores. General depths 7 - 17m, depths of 22, 26 – 29m experienced.
Geometry, choke points, sharp bends	Major route into Lough upstream of Strangford / Portaferry. Craft follow Quoile River South West to Quoile Barrage / Quoile Yacht Club. Killyleagh Reefs 1no anchorage circa 7m deep. Recommended tracks and clearing lines AC 2156: F – Portaferry Windmill open on Chapel Island clears Skate Rock. Town Rock beacon 271° for Killyleagh.
Oceanic, meteorological, environmental condition	Tidal streams 1knot ebb tide, 2knots on flood tide in vicinity of Chapel Island roads. Refer to chart. Oyster beds.
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst) – Barrel Rock (Pe), Mill Rock (Po), Town Rock Beacon, Bradley (Po), Toad Stone (Pe), e of Gibbs Island (Pe), Skate Rock (Po). Ballyhenry Island Lighted Beacon QG 3M.
Availability of VTS and pilotage	No Pilots on Lough. Buoys: None. Recommended tracks and clearing lines AC 2156: E – Perch on long Sheelagh 355.5° F – Portaferry Windmill open on Chapel Island clears Skate Rock. Town Rock beacon 271° for Killyleagh.
History of incidents, collisions, groundings	Vessel Mary (Sail vessel), Nil Desperando (Sailing Smack-5 tons)
Stakeholders	Ards and North Down Borough Council, Newry Mourne and Down Council, Marine Nature reserve

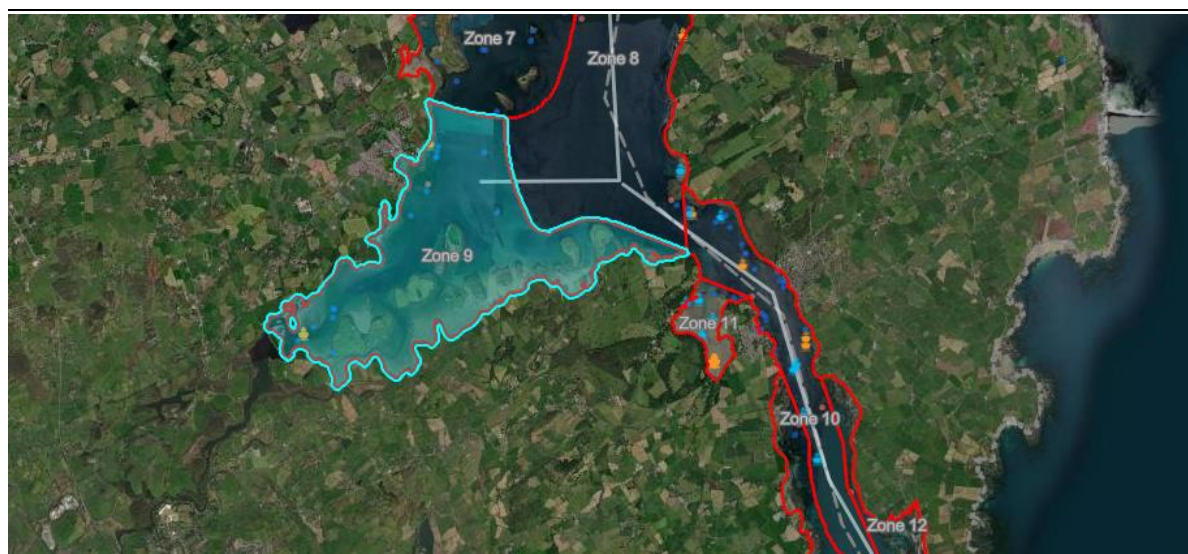


Figure 22. Zone 9 Boundary Extents

2.2.10 Zone 10: Main Channel South

Table 12. Zone 10 Summary Information

Subject	Description
Zone	Zone 10: Main Channel South
Traffic and mix	All vessels, including Dfl vehicle and pedestrian ferries and larger fishing vessels.
Bathymetry / Charts	Admiralty Chart No 2156. Area comprises the main channel from Audley's Point Ballyhenry Point south to entrance to Strangford Lough from Irish Sea. Depths vary, steeply shelving shoreline to 12 – 15m in the Narrows North and South of Strangford / Portaferry, with max depths between 33 – 59m. General depths 7 - 17m along shorelines, Depths of 22 – 40m experienced south of Gowland Rock / Salt rock to open sea.
Geometry, choke points, sharp bends	Major route into Lough from Irish Sea, past Strangford / Portaferry to Ballyhenry point. Cross Roads anchorage at Cloghy point. Killyleagh Reefs 1no anchorage circa 7m deep.
Oceanic, meteorological, environmental condition	Tidal streams 5knot ebb tide, 2knots on flood tide in vicinity of Chapel Island roads. Refer to chart. Oyster beds. Ruten wheel and whirlpools between Gowland Rocks / Black Islands / Islandacorr. Overfalls – tide rips – note – AC5612 – overfalls and tide rips may extend up to 1 mile outside St Patricks rock (54.18.58N, 5.30.94W.) during the S going stream, particularly when the wind is between SSW and E.
Fixed / floating aids to navigation, routing measures	Ballyhenry Spar ID LA0190.8300 IL Register Ballyhenry Speed Buoy Limit ID LA0190.8500 IL Register Portaferry Speed Limit Buoy ID LA0190.6000 IL Register Portaferry Marina Breakwater – Sector Light ID LA0190.4000 Portaferry Pontoon Inner Buoy ID LA0190.5000 IL Register Portaferry Outer Buoy ID LA0190.3000 IL Register Strangford Boathouse Post ID LA0190.2000 IL Register Strangford Mooring Buoy N ID LA0189.6000 Strangford Mooring Buoy S ID LA0189.5000 Church Point Beacon L Port ID LA0189.8000 QUB Swimmer Turbine – ID LA0190.2000 IL Register Minesto Test Site North – ID LA0190.8100 – Special Mark (4 no yellow buoys) South Cardinal – Ballyhenry Small craft mooring area. Swan Island – E Cardinal North Pladdy – N Cardinal South Pladdy - S Cardinal Portaferry Leading Light Ferry Slip - Dfl Strangford Leading Lights Front & Rear Ferry Slip - Dfl
Availability of VTS and pilotage	No Pilots on Lough. Buoys: see above. Recommended tracks and clearing lines AC 2156: A - Gowland Rocks and Point Light beacons in line 341°B – Salt Rock light beacon 330° C – S Patrick Rock and tail of Angus Beacons in line 162.7° D – Southernmost House Portaferry 126°
History of incidents, collisions, groundings	Empire Bunting (Steamship), various unknown / unconfirmed location
Stakeholders	Ards and North Down Borough Council, Newry Mourne and Down Council, Marine Nature reserve, Dfl (Ferry)

Subject

Description



Figure 23. Zone 10 Boundary Extents

2.2.11 Zone 11: Audley's Roads

Table 13. Zone 11 Summary Information

Subject	Description
Zone	Zone 11: Audley's Roads
Traffic and mix	Small craft, dinghies and yachts, access depending on draught and tide. Larger boats remain in vicinity of Audley's Roads.
Bathymetry / Charts	Admiralty Chart No 2156, Area comprises the bay between Audley's Castle Pier and Church Point. Generally, dries at CD, with narrow southerly access approximately 3m deep with 9m hole.
Geometry, choke points, sharp bends	Anchorage: Audley's Roads, southern extent suitable for small craft in 2 – 10m at low tide, larger craft to north 11 – 15m. Sleitch Rocks identified by pole to East of Strangford Sailing Club. Zara Shoal East of Sleitch Rocks, 0.6 – 2.7m at CD.
Oceanic, meteorological, environmental condition	Oyster beds in southern shallows / mud flats.
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst) – S of Strangford Sailing Club, N of Boat House Dickson's Island (Po) Sleitch Rocks (Po), ID LA0190.1000 IL Register Strangford Point West Pole (Po). ID LA0190.0000 IL Register Strangford Point East Pole (Po). ID LA0190.9000 IL Register
Availability of VTS and pilotage	No Pilots on Lough. Buoys: none. Recommended tracks and clearing lines AC 2156: None.
History of incidents, collisions, groundings	Strangford Bay Smack Amythest wreck, various unconfirmed location
Stakeholders	Newry Mourn and Down Council, Strangford Sailing Club, National Trust, Fishing / Oyster



Figure 24. Zone 11 Boundary Extents

2.2.12 Zone 12: The Meadows

Table 14. Zone 12 Summary Information

Subject	Description
Zone	Zone 12: The Meadows
Traffic and mix	Small craft, lobster / crab boats access depending on draught and tide.
Bathymetry / Charts	Admiralty Chart No 2156, Area comprises the eastern shoreline from Rue Point south to Ballyquintin Point. Northern Bay Gowland Rock / Beardy Rocks dry at CD, Granagh Bay, hole 12.5m deep. Dogtail Point to Carrstown Point, drying shoreline, steeply sloped to 5 – 8m. The Meadows, Black Island, Salt Rock, Paddy Lug & Fadgies Rock. All dry at CD. Water depth <2m, 5m depth to edge of main channel, including Bar Pladdy.
Geometry, choke points, sharp bends	Anchorage: None suggested on Admiralty Chart.
Oceanic, meteorological, environmental condition	Shallows
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst) – Gowland Rocks Beacon conspic Oc(2)G.10s.6m.5M. ID LA0188.5000 Dogtail Beacon Oc (40G.10s5M. ID LA0188.1000 IL Register Paddy Lug UL Beacon. ID LA0197.8100 IL Register
Availability of VTS and pilotage	No Pilots on Lough. Buoys: None. Recommended tracks and clearing lines AC 2156: None.
History of incidents, collisions, groundings	Witch of the wave (Ketch)
Stakeholders	Newry Mourne and Down Council, Strangford Sailing Club, National Trust, Fishing / Oyster



Figure 25. Zone 12 Boundary Extents

2.2.13 Zone 13: West Channel

Table 15. Zone 13 Summary Information

Subject	Description
Zone	Zone 13: West Channel
Traffic and mix	Alternative access into Strangford via channel to west of Angus Rock. All craft.
Bathymetry / Charts	Admiralty Chart No 2156, Area comprises the western shoreline from Killard Point to Black Islands. Northern extent Black Islands, Drying at CD, Salt Rock, Cloghy Rocks. Mud flats south of Cloghy Point to Killeif Point. Stony from Castle Flannan south to Killard point. Deep water in North to East (Zone 10). West Channel & Mill Quarter Bay, South and West of Angus Rock, shallows 2m – 5m, The Potts rocks and obstructions 0.8 – 1.7m at CD South of the Potts.
Geometry, choke points, sharp bends	Anchorage: Cross Roads, 11m at CD.
Oceanic, meteorological, environmental condition	Marine Nature Reserve. 2.5 Knots at Flood and Ebb tides. 4knots at ebb tide S of Angus Rock.
Fixed / floating aids to navigation, routing measures	Perches (Pe), Poles (Po), Posts (Pst) – Black Island E (Po) Salt Rock (Cloghy) Beacon FL.R.3s.8m.3M. ID LA0188.4000 IL Register Angus Rock Tower (Pepperpot) FL.R.5s.15m6M. ID LA0188.0500 IL Register South Angus Beacon ID LA0188.0000 IL Register St Patricks Rock Beacon
Availability of VTS and pilotage	No Pilots on Lough. Buoys: None. Recommended tracks and clearing lines AC 2156: West Side Clump of Trees and Killeif Church in line 320.5° Clears St Patricks rock and Craigthomas 9N Killard Point).
History of incidents, collisions, groundings	Tornamona (Former minesweeper; MFV), various unconfirmed location
Stakeholders	Newry Mourn and Down Council, Strangford Sailing Club National Trust, Fishing / Oyster



Figure 26. Zone 13 Boundary Extents

3. Hazards and scenarios identified within each zone

An assessment of the existing hazards within each zone has been undertaken as per the guidance outlined in the IALA published Guideline on the use of the Simplified IALA Risk Assessment Method. The guidance identifies that can be grouped into the following categories:

- Natural,
- Economic,
- Technical,
- Human,
- Operational,
- Waterway complexity.

The guidance also notes that hazard identification should be based on all available relevant information including:

- volume and mix of traffic along all routes and areas within the zone,
- geometry of routes in the area, traffic choke points and sharp bends,
- isolated dangers including wrecks and obstructions,
- quality of hydrographic data and charted information available,
- anchorages, fishing grounds; aquaculture and offshore energy sites and the routes to and from them,
- safe minimum depth (chart Datum) required for vessel operation within the waterway,
- meteorological visibility in the zone,
- passages through a narrow channel, restricted waters or port entry,
- possible effects low sun, background lighting or glare,
- spoil grounds, undersea cables, military exercise areas and Particularly Sensitive Sea Areas,
- historical evidence of natural and/or malicious interference to GNSS signals,
- information in IMO Ships' Routeing publication and Sailing Directions,
- problems with marine communications have been identified in the past,
- history of maritime incidents such as collisions and groundings.

The IALA published Guideline on the use of the Simplified IALA Risk Assessment Method provides a framework for scenario development. The guidance states that

The hazards identified may lead to a number of different undesired incidents or scenarios. Each hazard should be considered carefully, and the possible scenarios it may cause, should be identified and recorded (International Association of Marine Aids to Navigation and Lighthouse Authorities, 2017).

The guidance identifies the following scenarios:

- Grounding,
- Collision,
- Allision ,
- Foundering,
- Structural failure,
- Other

A summary of the hazards and scenarios considered within each zone is summarised in the following sub-sections, with the detailed Risk Assessments included in Appendix D. The hazards have been assessed based on the conditions of the AtoN within the Lough at the time of the assessment.

3.1 Zone 1: Strangford North

Table 16. Zone 1: Hazards Identified

Hazard		Remarks
Natural	Safe Minimum Depth	Circa 2m drying out in North
	Tide, Wind, wave and current effect	Possible hazard
	Minimum Visibility	Unlit AtoN
Economic	Insufficient AtoN funding issues	Risk Assessment
Technical	Loss of Vessel control	RNLI or other records
	Substandard Ships	Individuals responsible for boat condition
Human	Crew competency	Small boat owners unlikely to have RYA Training
	Safety Culture	Possibility of lax standards
Operational	Impact of smaller vehicles	Mixture of boating types
	Fishing Activities	Small lobster boats, small fishing boats, occasional commercial fishing – scallops
	Seasonal Activities	Regattas, racing
	Poor passage planning	Individuals responsibility, unknown
	Inadequate routing guidance	None available
	Poor route monitoring	None available
	Maritime Space	The existence of wrecks and new dangers
	Existence of restricted areas (e.g ammunition, fish farms)	Aquiculture North East of Paddy's point
Waterway Complexity	Narrow fairway	Access to North of Sketrick Island and Down Cruising Club narrow channel
	Limited depth of water	North of zone dries out

Table 17. Zone 1: Scenario Development

Hazard		Remarks
Collisions	Head-On	Low risk
Groundings	Grounding on rock	Possible in shallows
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	Possible
Allisions	Aquaculture Site	Fish farm in North East Paddy's Point. On boundary of 0m CD
Foundering	Capsizing	Potential in dinghy training / races - Newtownards Sailing Club
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Possible

3.2 Zone 2: South Island – Slave Rock

Table 18. Zone 2: Hazards Identified

Hazard		Remarks
	Safe Minimum Depth	Circa 2m for most vessels, channels between pladdies vary in depth between 4m (min) – 22m (max)
Natural	Tide, Wind, wave, and current effect	Flooding and ebb tide add do not run true, circa 1.5knto west, unknown within zone
	Minimum Visibility	Unlit AtoN
Economic	Insufficient AtoN funding issues	Risk assessment
Technical	Loss of Vessel control	RNLI or other records
	Substandard Ships	Individuals responsible for boat condition
Human	Crew competency	Small boat owners unlikely to have RYA training
	Safety Culture	Possibility of lax standards
Operational	Impact of smaller vehicles	Mixture of boating types
	Fishing Activities	Small lobster boats, small fishing boats, occasional commercial fishing – scallops
	Seasonal Activities	Regattas, racing
	Poor passage planning	Individuals responsibility, unknown. Passage through pladdies between east and west routes
	Inadequate routing guidance	None available
	Poor route monitoring	None available
Waterway Complexity	Sharp Bends	Routes weave between rocks and pladdies.
	Narrow fairway	Bird Island Passage circa - 150m at narrowest point
	Limited depth of water	Northern extent – South Island to Long Skart Rock / Dougherty Rock <2m at LAT

Table 19. Zone 2: Scenario Development

Hazard		Remarks
Collisions	Head-On	Low risk
	Crossing	Low risk
Groundings	Grounding on rock	Possible
	Grounding on soft bottom	Likely in shallows
Allisions	Aquaculture Site	Fish farms: <ul style="list-style-type: none"> • West of Dougherty Rock / Eel Pladdy, • East of Long Skart Rock • Between West Rock and Slave Rock
Foundering	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Possible

3.3 Zone 3: Main Passage West

Table 20. Zone 3: Hazards Identified

Hazard	Remarks
Natural	Safe Minimum Depth Channel has between 10m – 40m depth at CD
	Tide, Wind, wave and current effect Flooding and ebb tide add do not run true, circa 1.5kn
	Minimum Visibility Unlit AtoN or lateral marks, 4 point of interest markers in southern extent of zone: Inishanier Island, Long Sheelagh, Craigyouran, Tip Reef
Economic	Insufficient AtoN funding issues Risk Assessment
Technical	Loss of Vessel control RNLI or other records
	Substandard Ships Individuals responsible for boat condition
Human	Crew competency Small boat owners unlikely to have RYA training
	Fatigue Potential for crews returning to upper Lough from long cruise, unlikely for normal day to day activities
	Safety Culture Possibility of lax standards
Operational	Impact of smaller vehicles Mixture of boating types. No recorded issues
	Fishing Activities Small lobster boats, small fishing boats, occasional commercial fishing
	Seasonal Activities Regattas, racing. Note on Admiralty char re racing buoys within 2mile radius of Trasnagh Island 54°29' 0"N 5°37' 7"W. Orange Spar, May to September
	Poor passage planning Individuals responsibility, unknown. Passage through pladdies between east and west routes
	Inadequate routing guidance None available
	Poor route monitoring None available
Maritime Space	The existence of wrecks and new dangers 10 wrecks recorded
	Existence of restricted areas (e.g ammunition, fish farms) Fish farms in following areas: • South Rock / Sand Rock / Slave rock. • Woman's rock – West Bucky Rock. • East of Long Skart Rock. • West of Dougherty Rock – Eel Rock – Eel Pladdy
Waterway Complexity	Limited depth of water Only when moving outside of main channel to adjacent zones 1,2 and 5

Table 21. Zone 3: Scenario Development

Hazard	Remarks
Collisions	Head-On Low risk
	Overtaking Common
	Crossing Occasional
	Merging At sailing clubs
Groundings	Grounding on rock Possible at channel margins
	Grounding on soft bottom Likely in shallows
	Grounding on wrecks 10 wrecks recorded
Allisions	Aids to navigation Possible
Foundering	Capsizing Possible
	Sinking Possible
Structural Failure	Structural Failure of Vessel Possible

3.4 Zone 4: Main Passage East

Table 22. Zone 4: Hazards Identified

Hazard		Remarks
Natural	Safe Minimum Depth	Circa 2m drying out in North
	Tide, Wind, wave and current effect	No information
	Minimum Visibility	Unlit AtoN on pladdies to west of channel. Tip reef North Cardinal at approach to channel. Recently installed lateral marks for approach to Kircubbin, IALA port marks Hoskyns shoal and Southwest of Monaghan bank. IALA starboard marks Sand rock Pladdy and Southwest of Monaghan bank
Economic	Insufficient AtoN funding issues	Risk assessment
Technical	Loss of Vessel control	RNLI or other records
	Substandard Ships	Individuals responsible for boat condition
Human	Crew competency	Small boat owners unlikely to have RYA training
	Fatigue	Potential for crews returning from long cruise, unlikely for day/day activities
	Safety Culture	Possibility of lax standards
Operational	Impact of smaller vehicles	Mixture of boating types. No recorded issues
	Fishing Activities	Small lobster boats, small fishing boats, occasional commercial fishing
	Seasonal Activities	Regattas, racing. Note on Admiralty chart racing buoys within 2mile radius of Trasnagh Island 54°29' 0"N 5°37' 7"W. Orange Spar, May to September
	Poor passage planning	Individuals responsibility, unknown. Passage through pladdies between east and west routes
	Inadequate routing guidance	None available
	Poor route monitoring	None available
Maritime Space	The existence of wrecks and new dangers	10 wrecks recorded
	Existence of restricted areas (e.g ammunition, fish farms)	Fish farms in: South Rock / Sand Rock / Slave rock, Woman's rock – West Bucky Rock, East of Long Skart Rock, West of Dougherty Rock – Eel Rock – Eel Pladdy
Waterway Complexity	Limited depth of water	Only when moving outside of main channel to adjacent zones 1,2 and 5

Table 23. Zone 4: Scenario Development

Hazard		Remarks
Collisions	Head-On	Low risk
	Overtaking	Possible
	Bend	Changing in route red can FL R 5s SE of Sand Rock Pladdy
	Crossing	Possible
	Merging	Possible
Groundings	Grounding on rock	Possible, Hoskyns Shoal, Slave Rock Pladdies, and periphery of channel to West
	Grounding on soft bottom	Likely in shallows
	Grounding on wrecks	10 wrecks recorded
Allisions	Aids to navigation	Possible
Foundering	Capsizing	Common in dinghy races
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Possible

3.5 Zone 5: Trasnagh – Long Sheela

Table 24. Zone 5: Hazards Identified

Hazard	Remarks	
	Safe Minimum Depth	Channel has between 0m – 38m depth at CD. General depth 4 – 17m excluding shoals
	Tide, Wind, wave and current effect	No information. Currents in this area vary from 1kn – 2kn on flood and ebb tide
Natural	Minimum Visibility	Unlit AtoN on pladdies. Braddock Rock (3 Po), Rock West of Parton Rock (Po), Dead Mans Rock (Pe), Sand Rock Pladdy (Po), Hadd (PO), Janes Rock (Po), Long Sheelah (Po & Pe), Verde Rocks (Pe), Brown Rock (Po) Brownrock Pladdy (Po). East Cardinal at eastern end of Inishanier Rock (Dead Mans Rock) at Northeast end of zone. East Cardinal at eastern end of Long Sheelagh at eastern edge of Zone
Economic	Insufficient AtoN funding issues	Risk assessment
Technical	Loss of Vessel control	RNLI or other records
	Substandard Ships	Individuals responsible for boat condition
Human	Crew competency	Small boat owners unlikely to have RYA training
	Fatigue	Potential for crews returning to upper Lough from long cruise, unlikely for normal day to day activities
	Safety Culture	Possibility of lax standards
Operational	Impact of smaller vehicles	Mixture of boating types. No recorded issues
	Fishing Activities	Small lobster boats, small fishing boats. Fish farm between Dunsy Island and Sandrock Pladdy
	Seasonal Activities	Regattas, racing to North / East of zone. Note on Admiralty char re racing buoys within 2mile radius of Trasnagh Island 54°29' 0"N 5°37' 7"W. Orange Spar, May to September
	Poor passage planning	Individuals responsibility, unknown. Passage generally South between Islandmore and shore is well known locally
	Inadequate routing guidance	None available
	Poor route monitoring	None available
	The existence of wrecks and new dangers	Wreck Alasdair West of Islandmore in circa 23m. Three wrecks including Alasdair recorded.
Maritime Space	Crowded waterway issues	Considerable moorings along Ringhaddy sound
	Existence of restricted areas (e.g ammunition, fish farms) Groundings	Fish farms in following areas: South Rock / Sand Rock / Slave rock, Woman's rock – West Bucky Rock, East of Long Skart Rock, West of Dougherty Rock – Eel Rock – Eel Pladdy.
Waterway Complexity	Sharp Bends	No issues with main channel.
	Narrow fairway	Narrow due to anchorages within Ringhaddy sound
	Limited depth of water	Only when moving outside of main channel to adjacent zones 1,2 and 5

Table 25. Zone 5: Scenario Development

Hazard	Remarks	
Collisions	Head-On	Low risk
	Overtaking	Probable
	Bend	Southeast of Islandmore
	Crossing	Possible
	Merging	At sailing clubs

STRANGFORD LOUGH

Project number: 60705982

53

Hazard		Remarks
Groundings	Grounding on rock	Possible off channel
	Grounding on soft bottom	Likely in shallows
	Grounding on wrecks	Wreck Alasdair W of Islandmore in circa 23m. Three wrecks including Alasdair recorded
Allisions	Aquaculture Site	Fish farm between Dunsy Island and Sandrock Pladdy
	Aids to navigation	Possible
Foundering	Capsizing	Common in dinghy races
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Possible

3.6 Zone 6: Kircubbin Bay – Ringburr Point

Table 26. Zone 6: Hazards Identified

Hazard		Remarks
Natural	Safe Minimum Depth	Channel has between 0m – 7m depth at CD in East. General depth 2 – 8m excluding shoals. Comprises extensive rock, mud and drying pladdies
	Tide, Wind, wave and current effect	No information. Currents in this upper part of the Lough vary from 1kn – 2kn on flood and ebb tides
Economic	Insufficient AtoN funding issues	Risk assessment
Technical	Loss of Vessel control	RNLI or other records
	Substandard Ships	Individuals responsible for boat condition
Human	Crew competency	Small boat owners unlikely to have RYA training
	Safety Culture	Possibility of lax standards
Operational	Impact of smaller vehicles	Mixture of boating types. No recorded issues
	Fishing Activities	Small lobster boats, small fishing boats. Fish farm between Dunsy Island and Sandrock Pladdy
	Poor passage planning	Individuals responsibility, unknown. Not suitable for deep keeled vessels
	Inadequate routing guidance	None available
	Poor route monitoring	None available
Maritime Space	The existence of wrecks and new dangers	1 wreck recorded
	Existence of restricted areas (e.g ammunition, fish farms)	Fish farms in following areas: <ul style="list-style-type: none"> • South Rock / Sand Rock / Slave rock. • Woman's rock – West Bucky Rock. • East of Long Skart Rock. • West of Dougherty Rock – Eel Rock – Eel Pladdy
Waterway Complexity	Narrow fairway	Narrow due to rocks, pladdies, islands
	Limited depth of water	Throughout zone

Table 27. Zone 6: Scenario Development

Hazard		Remarks
Collisions	Head-On	Low risk, zone encapsulates pladdies, shoals and islands on east shoreline
	Overtaking	Possible approach to Sailing Club
	Crossing	Possible
	Merging	Possible
Groundings	Grounding on rock	Possible in shallows along shoreline
	Grounding on soft bottom	Likely in shallows
	Grounding on wrecks	1 wreck recorded
Allisions	Aids to navigation	Possible
Foundering	Capsizing	Common in dinghy races
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Possible

3.7 Zone 7: Long Rock – Ringdufferin Castle

Table 28. Zone 7: Hazards Identified

Hazard	Remarks
Natural	Safe Minimum Depth Channel depths vary, 0m – <2m and drying near shore. General depths 5 - 17m. Deeps of 26, 27 & 38m.
	Tide, Wind, wave and current effect No information. Currents in this upper part of the Lough vary from 1kn – 2kn on flood and ebb tides
Economic	Insufficient AtoN funding issues Risk assessment
Technical	Loss of Vessel control RNLI or other records
	Substandard Ships Individuals responsible for boat condition
Human	Crew competency Small boat owners unlikely to have RYA training
	Fatigue Potential for crews returning to upper Lough from long cruise, unlikely for normal day to day activities
	Safety Culture Possibility of lax standards
Operational	Impact of smaller vehicles Mixture of boating types. No recorded issues
	Fishing Activities Small lobster boats, small fishing boats. Fish farm between Dunsy Island and Sandrock Pladdy
	Poor passage planning Individuals responsibility, unknown. Not suitable for deep keeled vessels
	Inadequate routing guidance None available
	Poor route monitoring None available
Maritime Space	Existence of restricted areas (e.g ammunition, fish farms) Fish farms in following areas: <ul style="list-style-type: none"> • South Rock / Sand Rock / Slave rock. • Woman's rock – West Bucky Rock. • East of Long Skart Rock. • West of Dougherty Rock – Eel Rock – Eel Pladdy
Waterway Complexity	Narrow fairway Narrow due to rocks, pladdies, islands. Approach to East Down Yacht Club accessed by narrow and shallow route
	Limited depth of water Throughout zone

Table 29. Zone 7: Scenario Development

Hazard	Remarks
Collisions	Head-On Low risk, approach to East of Down YC
	Overtaking Probable
	Bend Channel East of Selk Rock
	Crossing Possible Holm Bay
	Merging At Sailing clubs
Groundings	Grounding on rock Possible on approach to East of Down YC
	Grounding on soft bottom Likely in shallows
Allisions	Aquaculture Site Possible
	Aids to navigation Possible
Foundering	Capsizing Common in dinghy races
	Sinking Possible
Structural Failure	Structural Failure of Vessel Possible

3.8 Zone 8: Main Channel Long Sheelah – Audley’s Point

Table 30. Zone 8: Hazards Identified

Hazard		Remarks
Natural	Safe Minimum Depth	Area comprises the main channel from Audley’s Point / Ballyhenry to Long Sheelagh. Depths vary, 0m – <49m – and drying near shore. General depths 11 - 22m. Deeps of 38, 48 – 49 experienced
	Tide, Wind, wave and current effect	Tidal streams 1knot ebb tide, 2knots on flood tide in vicinity of Chapel Island roads. Refer to chart AC2156
Economic	Insufficient AtoN funding issues	Risk Assessment
Technical	Loss of Vessel control	RNLI or other records
	Substandard Ships	Individuals responsible for boat condition
Human	Crew competency	Small boat owners unlikely to have RYA training
	Fatigue	Potential for crews returning to upper Lough from long cruise, unlikely for normal day to day activities
	Safety Culture	Possibility of lax standards
Operational	Impact of smaller vehicles	Mixture of boating types. No recorded issues
	Fishing Activities	Small lobster boats, small fishing boats
	Poor passage planning	Individuals responsibility, unknown. Not suitable for deep keeled vessel
	Inadequate routing guidance	None available
	Poor route monitoring	None available
Maritime Space	The existence of wrecks and new dangers	2no, 1 no Ballywhite Bay, 1 other.
	Existence of restricted areas (e.g ammunition, fish farms)	Aquiculture Southeast of Skate Rock boundary with Zone 9

Table 31. Zone 8: Scenario Development

Hazard		Remarks
Collisions	Head-On	Low risk wide channel
	Overtaking	Likely
	Bend	Channel turns Southeast at Ballyhenry Point
	Crossing	Possible
	Merging	Possible
Groundings	Grounding on rock	Unlikely
	Grounding on soft bottom	Likely in shallows
Allisions	Aids to navigation	Possible
Foundering	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Possible

3.9 Zone 9: Quoile

Table 32. Zone 9: Hazards Identified

Hazard	Remarks
Natural	Safe Minimum Depth Admiralty Chart No 2156, Area comprises the main channel from Audley's Point to Killyleagh and Quoile Barrage. Depths vary, 0m – <20m and drying South and West shores. General depths 7 - 17m. Deeps of 22, 26 – 29 experienced
	Tide, Wind, wave and current effect Tidal streams 1knot ebb tide, 2knots on flood tide in vicinity of Chapel Island roads. Refer to chart AC2156
Economic	Insufficient AtoN funding issues Risk Assessment
Technical	Loss of Vessel control RNLI or other records
	Substandard Ships Individuals responsible for boat condition
Human	Crew competency Small boat owners unlikely to have RYA training
	Safety Culture Possibility of lax standards
Operational	Impact of smaller vehicles Mixture of boating types. No recorded issues
	Fishing Activities Small lobster boats, small fishing boats
	Poor passage planning Individuals responsibility, unknown. Not suitable for deep keeled vessels
	Inadequate routing guidance None available
	Poor route monitoring None available
Maritime Space	The existence of wrecks and new dangers 4 no wrecks recorded
	Existence of restricted areas (e.g ammunition, fish farms) Aquiculture Southeast of Skate Rock boundary with Zone 8
Waterway Complexity	Narrow fairway Craft follow Quoile River Southwest to Quoile Barrage / Quoile Yacht Club at low tide

Table 33. Zone 9: Scenario Development

Hazard	Remarks
Collisions	Head-On Low risk Quoile River approach to QSC
	Overtaking Possible
	Bend Turn to East of Green Island / Skate Rock
	Crossing Possible Killyleagh
	Merging Possible
Groundings	Grounding on rock Possible between Green Island / Skate rock
	Grounding on soft bottom Likely in shallows
	Grounding on wrecks 4 no wrecks recorded
Allisions	Aquaculture Site Fish farm Southeast of Skate Rock
	Aids to navigation Possible
Foundering	Capsizing Possible
	Sinking Possible
Structural Failure	Structural Failure of Vessel Possible

3.10 Zone 10: Main Channel South

Table 34. Zone 10: Hazards Identified

Hazard	Remarks
Natural	Safe Minimum Depth Admiralty Chart No 2156, Area comprises the main channel from Audley's Point Ballyhenry Point south to entrance to Strangford Lough from Irish Sea. Depths vary, steeply shelving shoreline to 12 – 15m in the Narrows North and South of Strangford / Portaferry, with depths of 33 – 59. General depths 7 - 17m along shorelines. Deeps of 22, 33 – 37 & 40m experienced South of Gowland Rock / Salt rock to open sea
	Tide, Wind, wave and current effect Tidal streams 5knot ebb tide, 2knots on flood tide in vicinity of Chapel Island roads. Refer to chart. Refer to chart AC2156. Routen wheel and whirlpools between Gowland Rocks / Black Islands / Islandacorr. Overfalls – tide rips – note – AC5612 – overfalls and tide rips may extend up to 1 mile outside St Patricks rock (54.18.58N, 5.30.94W.) during the South going stream, particularly when the wind is between South / Southwest and East
Economic	Insufficient AtoN funding issues Risk assessment
Technical	Loss of Vessel control RNLI or other records
	Substandard Ships Individuals responsible for boat condition
Human	Crew competency Small boat owners unlikely to have RYA training
	Fatigue Potential for crews returning to upper Lough from long cruise, unlikely for normal day to day activities
	Safety Culture Possibility of lax standards
Operational	Impact of smaller vehicles Mixture of boating types. No recorded issues
	Fishing Activities Small lobster boats, small fishing boats
	Poor passage planning Individuals responsibility, unknown. Not suitable for deep keeled vessels
	Inadequate routing guidance None available
	Poor route monitoring None available
Maritime Space	The existence of wrecks and new dangers 21 no wrecks recorded
	Existence of restricted areas (e.g ammunition, fish farms) Aquiculture Southeast of Skate Rock boundary with Zone 9

Table 35. Zone 10: Scenario Development

Hazard	Remarks
Collisions	Head-On Low risk
	Overtaking Probable
	Crossing Possible
	Merging Possible
Grounding	Grounding on rock Possible
	Grounding on soft bottom Likely in shallows
	Grounding on wreck 21 no wrecks recorded
Allisions	Wave and Tidal Energy Structures Ballyhenry Bay
	Aids to navigation Possible
Foundering	Capsizing Possible
	Sinking Possible
Structural Failure	Structural Failure of Vessel Possible

3.11 Zone 11: Audley's Roads

Table 36. Zone 11: Hazards Identified

Hazard		Remarks
Natural	Safe Minimum Depth	Admiralty Chart No 2156, Area comprises the bay between Audley's Castle Pier and Church Point. South of Sleitch Rocks / Strangford Sailing Club Bay dries at CD, with narrow southerly access approximately 3m deep with 9m hole
	Economic	Insufficient AtoN funding issues
Technical	Loss of Vessel control	RNLI or other records
	Substandard Ships	Individuals responsible for boat condition
Human	Crew competency	Small boat owners unlikely to have RYA training
	Safety Culture	Possibility of lax standards
Operational	Impact of smaller vehicles	Mixture of boating types. No recorded issues
	Fishing Activities	Small lobster boats, small fishing boats
	Poor passage planning	Individuals responsibility, unknown. Not suitable for deep keeled vessels
	Inadequate routing guidance	None available
	Poor route monitoring	None available
Maritime Space	The existence of wrecks and new dangers	4 no wrecks recorded
	Existence of restricted areas (e.g ammunition, fish farms)	Oyster Beds in southern shallows / mud flats vicinity of Crane's Corner
Waterway Complexity	Limited depth of water	Drying out in southern areas, Zara shoal East of Sleitch Rocks – 0.6 – 2.7m at CD. Audley's Road's moorings, in 11 – 15m. Channel 0.6 – 9m

Table 37. Zone 11: Scenario Development

Hazard		Remarks
Collisions	Head-On	Low risk
Groundings	Grounding on rock	Possible on Sleitch Rocks
	Grounding on soft bottom	Likely in shallows
	Grounding on wrecks	4 no wrecks recorded
Allisions	Aquaculture site	Oyster farm, SW of Cranes Corner
	Aids to navigation	Possible
Foundering	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural failure of vessel	Possible

3.12 Zone 12: The Meadows

Table 38. Zone 12: Hazards Identified

Hazard	Remarks
Natural	<p>Safe Minimum Depth</p> <p>Admiralty Chart No 2156, Area comprises the eastern shoreline from Rue Point South to Ballyquintin Point. Northern Bay Gowland Rock / Beady Rocks dry at CD, Granagh Bay, hole 12.5m deep. Dogtail Point to Carrstown Point: drying shoreline, steeply sloped to 5 – 8m. The Meadows, Black Island, Salt Rock, Paddy Lug & Fadgies Rock all dry at CD. Water depth <2m, 5m depth to edge of main channel, including Bar Pladdy.</p>
Economic	Insufficient AtoN funding issues Risk assessment
Technical	Loss of Vessel control RNLI or other records
	Substandard Ships Individuals responsible for boat condition
Human	Crew competency Small boat owners unlikely to have RYA training
	Safety Culture Possibility of lax standards
Operational	Impact of smaller vehicles Mixture of boating types. No recorded issues
	Fishing Activities Small lobster boats, small fishing boats
	Poor passage planning Individuals responsibility, unknown. Not suitable for deep keeled vessels
	Inadequate routing guidance None available
	Poor route monitoring None available
Maritime Space	The existence of wrecks and new dangers 21 no wrecks recorded
Waterway Complexity	Limited depth of water As per safe minimum depth above

Table 39. Zone 12: Scenario Development

Hazard	Remarks
Groundings	Grounding on rock Possible
	Grounding on soft bottom Likely in shallows
	Grounding on wrecks 21 no wrecks recorded
Allisions	Aids to avigation Possible
Foundering	Capsizing Possible
	Sinking Possible
Structural Failure	Structural failure of vessel Possible

3.13 Zone 13: West Channel

Table 40. Zone 13: Hazards Identified

Hazard	Remarks
Natural	Safe Minimum Depth Admiralty Chart No 2156, Area comprises the western shoreline from Killard Point to Black Islands. West Channel & Mill Quarter Bay, South and West of Angus Rock, shallows 2m – 5m. The Potts rocks and obstructions 0.8 – 1.7m at CD South of the Potts. Anchorage at Cross Roads 11m at CD
	Tide, Wind, wave and current effect 2.5 Knots at Flood and Ebb tides. 4knots at ebb tide S of Angus Rock
Economic	Insufficient AtoN funding issues Risk assessment
Technical	Loss of Vessel control RNLI or other records
	Substandard Ships Individuals responsible for boat condition
Human	Crew competency Small boat owners unlikely to have RYA training
	Safety Culture Possibility of lax standards
Operational	Impact of smaller vehicles Mixture of boating types. No recorded issues
	Fishing Activities Small lobster boats, small fishing boats
	Poor passage planning Individuals responsibility, unknown. Not suitable for deep keeled vessels
	Inadequate routing guidance None available
	Poor route monitoring None available
Maritime Space	The existence of wrecks and new dangers 8 no wrecks recorded
Waterway Complexity	Limited depth of water Northern extent Black Islands drying at CD. Salt Rock, Cloghy Rocks mud flats South of Cloghy Point to Kilcleif Point. Stoney from Castle Flannan south to Killard point. Deep water in North to East (Zone 10).
	West Channel & Mill Quarter Bay, South and West of Angus Rock shallows 2m – 5m. The Potts rocks and obstructions 0.8 – 1.7m at CD South of the Potts

Table 41. Zone 13: Scenario Development

Hazard	Remarks
Collisions	Head-On Low risk
	Grounding on rock Possible
Groundings	Grounding on soft bottom Likely in shallows
	Grounding on wrecks 8 no wrecks recorded
Allisions	Aids to navigation Possible
Foundering	Capsizing Possible
	Sinking Possible
Structural Failure	Structural failure of vessel Possible

4. Stakeholders present at the workshop and their relevant experience

4.1 Stakeholder Meeting No.1 (Royal Yachting Association)

It was identified at an early stage of the project that the Royal Yachting Association (RYA) were a key stakeholder in the project, with a vast knowledge of the waterway and the user groups. The Royal Yachting Association is recognised as the national governing body for dinghy, motor and sail cruising, all forms of sail racing, RIBs and sports boats, windsurfing and personal watercraft, and is a leading representative body for inland waterways cruising in the UK.

A meeting was held with David Williams, Director of the RYA, on 12th June 2023 to discuss navigational issues within the Lough as well as the standard of current AtoN and the expectations around those required. The meeting identified several deficiencies regarding the standard of the existing AtoN as well as areas where additional AtoN should be considered. The items raised within the meeting have been considered within the proposals outlined in the following sections.

Further meetings were held to discuss proposals following the Risk Assessment process.

4.2 Strangford Lough User groups

An extensive trawl of User Groups with Strangford Lough was undertaken to identify those stakeholder organisations / groups with an interest in Strangford Lough. The list was generated from the Strangford Lough and Lecale Partnership, the Strangford Lough Marine Protected Area Management Steering Group, The Strangford Lough Rangers Group, local sailing and coastal rowers and outdoor recreation providers. Invites were issued to 113 recipients within the organisations listed in Table 42:

Table 42. Stakeholder Organisation Invites

Organisation	Organisation	Organisation	Organisation
AFBI - Agri -Food Biosciences Institute	Historic Environment Division	NIEA	Strangford Coastal Rowing Club
Angling NI	Irish Lights	NI WATER	Strangford Lough Activity Centre
Ards and North Down Borough Council	Killyleagh Coastal Rowing Club	Portaferry Coastal Rowing Club	Strangford Lough Tourism Cluster
British Trust for Ornithology	Killyleagh Yacht Club	Portaferry Marina	Strangford Lough Yacht Club
Canoeing NI	Kircubbin Coastal Rowing Club	Portaferry Sailing Club	Strangford Moorings
County Down Rural Community Network	Kircubbin Sailing club	Queens University Belfast	Strangford Sailing Club
Crown Estates	Mobile Team Adventure	Quoile Yacht Club	The Portico of Ards
Cuan Marine	National Trust	Ringhaddy Cruising Club	True Harvest Seeds
DAERA	Nature Friendly Farming Network	RYA NI	Ulster Farmers Union
DFI - Strangford Ferry	Newry Mourne and Down District Council	Seafish	Ulster Wildlife
Down Cruising Club	Newtownards Sailing Club	Seasearch NI	Wild Ireland Tour Guide
DV Diving	NI Environment Link	Sketrick Coastal Rowing Club	Woodland Trust
East Down Yacht Club	NI Fish Producers Organisation	Sport NI	WWT Castle Espie
EA - Outdoor Education	NI Marine Task Force	St Brendan	

Further to the email invites, invitations, as per Figure 27, were posted in the Strangford and Lecale ezine, a news article on www.strangfordlough.org and follow up posts on social media via Facebook and Instagram.



Figure 27. Stakeholder Invite

4.2.1 Stakeholder Meeting No.2 (Portaferry Recreation Hub)

A meeting with interested User Groups was held in Portaferry Recreation Hub on 17th August 2023.

The meeting took the form of a presentation from the project team, outlining the background to the project, the research / data collection undertaken and an overview of the draft Risk Assessments for the central and eastern zones (i.e. Zone 1, 2, 4, 6, 8, 10 and 12). The format of the presentation was the ArcGIS StoryMap platform.

The meeting was attended by 15 stakeholders, with those in attendance including elected representatives, district council members as well as members from maintenance, environmental, RYA, local sailing, yacht, and small craft organisations. The attendees were well engaged throughout the meeting, with valuable feedback provided, including the consideration of small craft within the Risk Assessment, contact details for additional consultees, specific additional hazards to be considered within individual zones, environmental considerations, specific requests for additional AtoN, comment on the condition of some of the existing AtoN and identification of additional AtoN locations.

4.2.2 Stakeholder Meeting No.3 (Strangford Yacht Club)

A further meeting with interested User Groups was held in Strangford Yacht Club on 21st August 2023.

The meeting took the same format as that in Portaferry Recreation Hub but focused on the central and western zones (i.e. Zone 1, 3, 5, 7, 9, 10, 11 and 13).

The meeting was attended by 21 stakeholders, with those in attendance including a similar representation as the meeting in Portaferry Recreation Hub. A similar, high, level of engagement took place throughout the meeting with further valuable feedback provided on the hazards, existing and suggested AtoN within the specific zones.

4.2.3 General feedback from Workshops

Along with the specific feedback provided on individual zones, the workshops highlighted several general considerations regarding navigation within Strangford Lough.

One of the main items of general feedback was the requirement for consistency in the standard / specification of the AtoN. As noted previously in this report, erection of the AtoN has developed over time to suit requirements specific to that time. As such, the AtoN throughout the Lough vary in both style and condition.

The lack of centralised management of the AtoN within the Lough was raised, with it being recognised that AtoN had been installed by a variety of groups for individual requirements. This has resulted in lack of standardisation in the specification, management and maintenance of the AtoN.

The general consensus from the stakeholders was that any proposals for amendment to the AtoN should be proportionate, both in terms of number and standard with comment made that there is a requirement to have a sufficient number of AtoN to compliment the Lough and attract visiting yachts, whilst not being of such excessive number that would discourage local users.

5. Proposed risk mitigation measures and responsible organization(s)

The risk assessment process has identified several further risk control options to reduce the risk within individual zones and the wider Lough. Several options are available, such as those outlined in SIRA:

- *Improved coordination and planning*
- *Additional training and education*
- *Enforcement of new or existing rules and procedures*
- *Improved and up to date charted information, including hydrographic, meteorological and general promulgation of navigation information*
- *Enhanced AtoN service provision*
- *Improved radio communications*
- *Active traffic management, such as VTS*
- *Changes to the waterway*
- *Pilotage requirements*

A review of the existing risk control measures, and feedback from the stakeholder meetings, has indicated that improvements to the AtoN form the primary opportunity to provide improved risk control measures and the initial optioneering shall look at such options. Further to this, it is apparent that improved coordination and standardisation of the AtoN within the Lough is required. These points are considered under the following sub-headings.

5.1 Improved coordination and planning

5.1.1 Standardised and co-ordinated AtoN

As noted previously, one of the main items of general feedback from the stakeholder meetings was the lack of consistency in the standard of the AtoN within the Lough. It is recognised that the AtoN have developed over time, with the aids varying in both style and condition. It is recommended that all AtoN within the study area should be standardised to provide consistency, with the proposal that all recognised AtoN along the primary arterial route should be compliant with IALA Standards. This is discussed further under Section 5.2.

5.1.2 Co-ordinated management of AtoN

Whilst the Commissioners for Irish Lights had hitherto sole responsibility for the management of AtoN, following the transfer of responsibility to Ards and North Down Borough Council and Newry Mourne and Down Council, this has led to a parallel set of arrangements and funding streams. This coupled with the AtoN outside of the primary arterial routes, has resulted in lack of standardisation in the specification, management and maintenance of the AtoN.








It is recommended that a holistic approach to the management of AtoN on the Lough should be undertaken, with a centralised and co-ordinated management group formed. Such a group will allow consistency of approach, procurement and management of the AtoN within the Lough and ensure compliance with IALA standards. The structure of the group could include representation from the key stakeholders and user groups within the Lough and allow for delegation / re-assignment of management of AtoN outside of the primary arterial route to such groups / organisations under a structured agreement. A summary of the suggested AtoN to be delegated / re-assigned to the management group are included in Section 5.3.

Further to this, the centralised group could be used to provide navigational information for those visiting the Lough and promoting the Lough and wider area as a tourist destination to generate additional funding streams. This approach could also be used as a mechanism to provide a source of income for the future management of the AtoN within the Lough.

5.2 Enhanced AtoN service provision

It has been established that the existing AtoN service provision within the Lough is inadequate. It is therefore recommended that improvements be made to the current arrangements, with options presented in the following sub-sections. The symbols shown in the figures within the following sub-sections are summarised in Table 43:

Table 43. AtoN Symbols

Description	Symbol	Description	Symbol	Description	Symbol	Description	Symbol
Port Buoy		Sector Light		East Cardinal		South Cardinal	
Starboard Buoy		West Cardinal		North Cardinal			

5.2.1 Option 1: Undertake repairs to existing AtoN

This option considers repair / replacement of the existing AtoN. The Irish Lights Survey of April 2021 has been used to allow an assessment of the likely extent of repairs, with the repairs set out in Table 44:

Table 44. Repairs to Existing AtoN

Irish Lights ID No	Map Ref	Name	Remedial Action
LA0196.5000	01	Parton	Pole Repair base only sighted
LA0196.6000	02	Roe	Renewal Required
LA0195.7000	03	Sand Rock	Pole Repair Illuminate
LA0194.8000 / 8100	04	Ringhaddy South	Improve Leading Line
LA0198.2800	05	Rainey Island West	Remove base of spar / not seen
LA0196.1200	06	Kircubbin Approaches Buoy Hoskyns Shoal	Replace Top Mark
LA0196.1300	07	Kircubbin Approaches Sand Rock Pladdy	Renewal Faded to Pink
LA0196.1400	08	Kircubbin Approaches Roads Starboard	Top Mark Missing Replace
LA0196.1500	09	Kircubbin Approaches Roads Port	Renewal Faded to Pink, Top Mark missing
LA0196.1100	10	Kircubbin Approaches Tip Reef	Repair Top mark
LA0197.6000	11	Skart Rock Pladdy	Renewal required
LA0197.4000	12	Michaels Rock	Renewal required / Leaning not upright
LA0197.7400	13	Round Skart West	Renewal required
LA0199.3000	14	Whaup Rock	Renewal required
LA0197.1000	15	Braddock Pole No 2	Renewal Required
LA0196.8700	16	Stranford YC Pole	Renewal Required
LA0190.8000	17	Walter Rocks	Renewal required
LA0197.9500	18	Newtown Spar	Renewal Required
LA0198.0000	19	Transnagh NW	Top Mark Missing
LA0196.3800	20	West Rock Spar	Renewal required
LA0198.5000	21	Rigg Pladdy	

Source: Irish Lights Survey April 2021

Although this option remediates the damage to the existing AtoN, the Lough and individual zones within the Lough include a combination of AtoN, some compliant, and some non-compliant with IALA Standards. This option would provide no improvement to the current risk control measures, resulting in the continuation of un-coordinated and unstandardised AtoN within the Lough. This option does not alleviate the difficulties experienced in poor visibility / light and the Lough would remain as 'cautionary' as per the Sailing Directions.

Several AtoN were identified as 'Missing' or 'Not Seen' within the Irish Lights Survey of April 2021 as outlined in Table 45. **It is recommended that a further comprehensive survey of all existing AtoN should be undertaken to allow the Register to be updated accordingly with regards to the number and condition of existing AtoN.** This option could be further sub-divided into Option 1A: Replacement of 'Missing' or 'Not Seen' AtoN and Option 1B: Non-replacement of 'Missing' or 'Not Seen' AtoN.

Table 45. 'Missing' or 'Not Seen' AtoN

Irish Lights ID No	Map Ref	Name	Type (Irish Lights Description)
LA0190.8300	22	Ballyhenry Spar	Unlit Buoy
LA0190.8500	23	Ballyhenry Speed Limit Buoy	Buoy Unlit Special Mark
LA0196.6500	24	Roe Spar	Unlit Buoy
LA0196.8100	25	Spar near Dead Man's rock	Unlit Beacon
LA0197.0000	26	Braddock Pole No 1	Unlit Beacon
LA0197.2000	27	Braddock Pole No 3	Unlit Beacon
LA0197.9500	28	Braddock Island	Unlit Beacon
LA0197.9000	29	Braddock Point	Unlit Beacon
LA0197.2100	30	Spar near Braddock Island	Unlit Beacon
LA0196.8200	31	Sketrick South	Unlit Beacon
LA0198.2500	32	Rainey Island North	Unlit Beacon
LA0198.2000	33	Rainey Island East	Unlit Beacon
LA0198.2800	34	Rainey Island West	Unlit Beacon
LA0198.3000	35	Spar near Lythe Rock	Unlit Buoy
LA0198.1000	36	Calf Island West	Unlit Beacon
LA0198.6000	37	Gull Rock	Unlit Beacon
La0198.7000	38	Gull Rock Pladdy	Unlit Beacon
LA0198.9000	39	Downey's Rock	Unlit Beacon Perch
LA0198.8500	40	Downey's Pladdy	Unlit Buoy
LA0198.4600	41	Kircubbin Speed Limit Buoy	Unlit Buoy Special Mark
LA0196.0000	42	Gransha Point	Unlit Beacon Stone Tower
LA0197.9000	43	Newtown Rock	Unlit Beacon Perch
LA0197.7500	44	Newtown Rock Spar	Unlit Buoy
LA0197.9500	45	Newtown Spar	Unlit Buoy (not seen in photo)
LA0197.7000	46	Round Skart Rock	Unlit Beacon Perch
LA0197.5000	47	Dullisk Rock	Unlit Beacon
LA0199.1000	48	Bird Point	Unlit Beacon Perch
LA0197.3000	49	Washer Rock	Unlit Beacon Perch
LA0196.3500	50	South Rock Spar	Unlit Buoy

Source: Irish Lights Survey April 2021

5.2.2 Option 2: Enhance existing AtoN

This option includes enhancement of the AtoN through a combination of retaining existing AtoN, undertaking repairs to existing AtoN and the provision of new AtoN.

The existing AtoN to be retained are outlined in Table 46 and Figure 28.

Table 46. Existing AtoN to be retained

Irish Lights ID No	Map Ref	Name	Type (Irish Lights Description)
N/A	E01	St Patrick's Rock	Beacon
LA0188.0500	E02	Angus Rock	Lighthouse
NA	E03	Bar Pladdy	South Cardinal
LA0188.1000	E04	Dogtail Point	Leading Light
LA0188.4000	E05	Salt Rock	Lateral Port
LA0188.5000	E06	Gowland's Rocks	Leading Light
LA0189.6000	E07	Strangford Mooring Buoy N	Buoy UL
LA0189.5000	E08	Strangford Mooring Buoy S	Buoy UL
LA0189.8000	E09	Church Point	Lateral Port
LA0190.9000	E10	Ballyhenry Point	Lateral Starboard
LA0191.5000	E11	Town Rock	Sectored Light
LA0194.0000	E12	Limestone Rock	Lateral Port green can
LA0194.1000	E13	Limestone Rock Pole	Lateral Port
LA0196.8000	E14	Dead Mans Rock	East Cardinal
LA0199.0000	E15	Mahee Point	Sectored Beacon
LA0196.1100	E16	Kircubbin Approaches Tip Reef	South Cardinal
LA0196.1200	E17	Kircubbin Approaches Buoy Hoskyn's Shoal	Lateral Starboard
LA0196.1300	E18	Kircubbin Approaches Buoy Sand Rock Pladdy	Lateral Port
LA0196.1400	E19	Kircubbin Approaches Buoy Roads Starboard	Lateral Starboard
LA0196.1500	E20	Kircubbin Approaches Buoy Roads Port	Lateral Port
LA0195.1000	E21	Craigyouuran	West Cardinal
LA0195.3500	E22	Long Sheelagh	East Cardinal
LA0190.2000	E23	Strangford Boat House Post	Beacon Lateral Port

The Irish Lights Survey of April 2021 identified repairs are necessary to the following AtoN which are to be retained as outlined in Table 47.

Table 47. Repairs to existing AtoN

Irish Lights ID No	Map Ref	Name	Repairs Required
LA0196.1100	E16	Kircubbin Approaches Tip Reef	Repair Top mark
LA0196.1200	E17	Kircubbin Approaches Buoy Hoskyns Shoal	Replace Top Mark
LA0188.0000	E01	South Angus Beacon	Beacon Unlit – Illuminate Beacon
LA0189.6000	E07	Strangford Mooring Buoy N	Buoy Unlit - Illuminate
LA0189.5000	E08	Strangford Mooring Buoy S	Buoy Unlit - Illuminate
LA0196.1300	E18	Kircubbin Approaches Sand Rock Pladdy	Renewal Faded to Pink
LA0196.1400	E19	Kircubbin Approaches Roads Starboard	Top Mark Missing Replace
LA0196.1500	E20	Kircubbin Approaches Roads Port	Renewal Faded to Pink, Top Mark missing

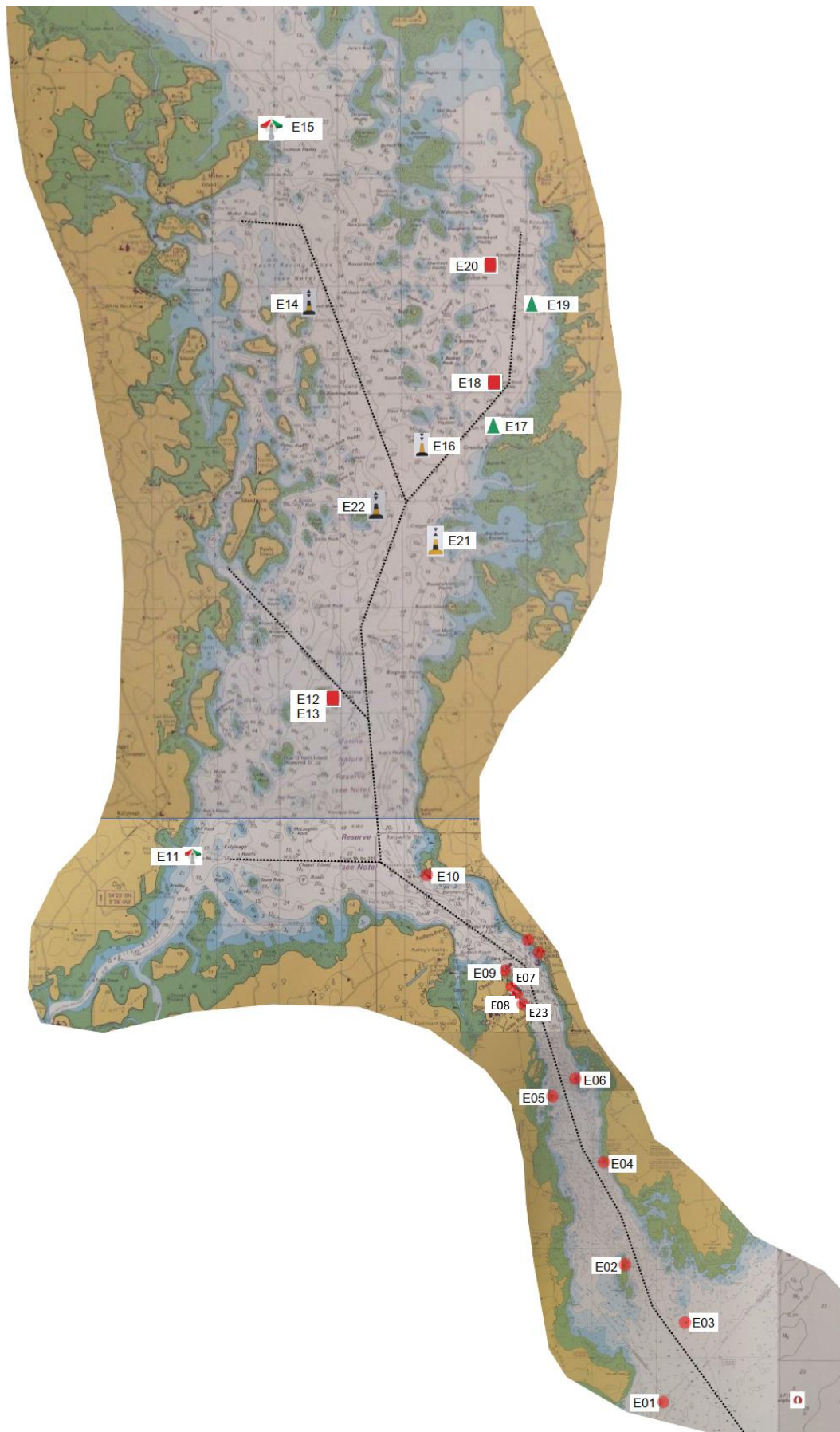


Figure 28. Existing AtoN (Base Map Source: Admiralty Chart 5612)

The proposed new AtoN are outlined in Table 48 and Figure 29. At some locations the proposals include replacement of existing AtoN as outlined in the table.

Table 48. Provision of new AtoN

Irish Lights ID No	Name	Map Ref	Proposal	Current Condition (As per IL survey)
N/A	Strangford Entrance	P01	Special Mark	Nil
N/A	Strangford Entrance	P02	Starboard Lateral	Nil
NA	West Channel	P03	Port Lateral	Nil
LA0197.8100	Paddy Lug	P04	New Starboard Lateral in lieu of ex unlit stone beacon	Unlit Stone Beacon
N/A	Black Island	P05	Port Lateral	Nil
N/A	Black Boat Bay	P06	Starboard Lateral	Nil
N/A	Zara Shoal	P07	Port Lateral	Nil
NA	Rat Island	P08	Port Lateral	TBC
N/A	Toad Stone	P09	Starboard Lateral	Unlit beacon
N/A	The Scotchman	P10	Starboard Lateral	TBC
LA0191.0000	Skate Rock	P11	North Cardinal	Unlit Beacon
LA0191.2000	Barrel Rock	P12	East Cardinal	Unlit Beacon
LA0198.9000	Downey's Rock	P13	Starboard Lateral	Missing / not seen
LA0198.5000	Rig Pladdy	P14	West Cardinal	Unlit Perch
LA0197.4000	Michael's Rock	P15	Starboard Lateral	Unlit Beacon / Perch
LA0196.3800	West Rock	P16	West Cardinal	Unlit Buoy
LA0196.3500	South Rock	P17	Starboard Lateral	Unlit Buoy Missing
NA	Blackdog Rock	P18	Port Lateral	TBC
LA0196.3000	Slave Rock	P19	Starboard Lateral	Unlit Beacon
NA	Dunsey Pladdy	P20	North Cardinal	TBC
LA0195.9000	Sand Rock Pladdy	P21	East Cardinal	Unlit Beacon
LA0195.8000	Hadd Rock	P22	Port Lateral	Unlit Beacon
NA	Strife Rock	P23	Port Lateral	TBC
NA	Rathgorman Pladdies	P24	West Cardinal	TBC
LA0194.5000	Verde Rocks	P25	East Cardinal	Unlit Beacon
LA0193.4000	Selk Rock	P26	South Cardinal	Unlit Beacon
NA	Long Rock	P27	North Cardinal	TBC
LA0191.2500	Long Rock	P28	South Cardinal	Unlit Beacon



Figure 29. Proposed AtoN (Base Map Source: Admiralty Chart 5612)

The combined proposal is shown in Figure 30

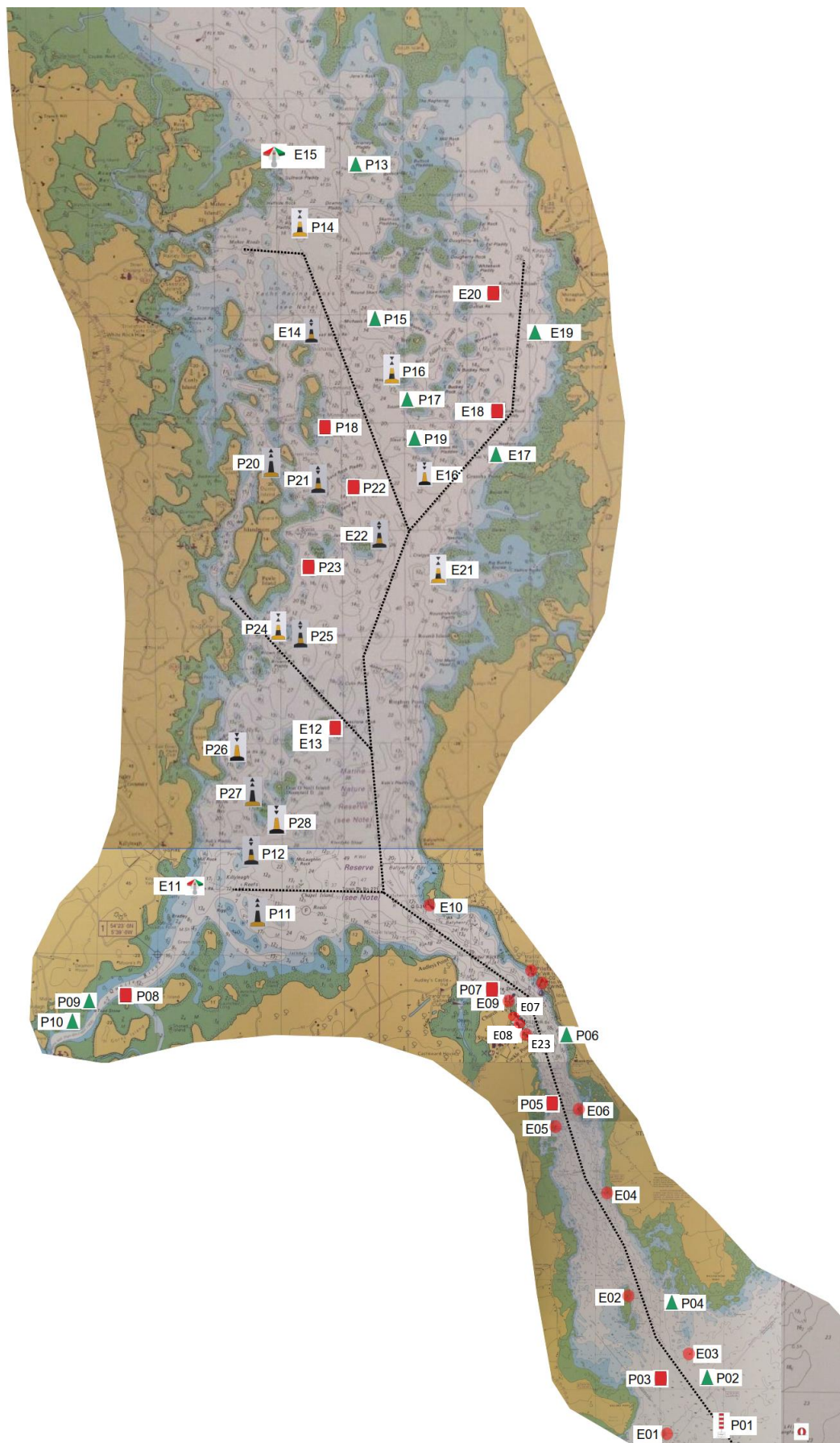


Figure 30. Combined AtoN (Base Map Source: Admiralty Chart 5612)

This option entails the provision of AtoN for the purposes of identifying points of interest / hazards and improving buoyage through the Lough by defining a safe passage. The option addresses the key concerns identified as part of the risk assessment process, namely:

- improved identification of hazards in Zones 3 (Main Passage West), 5 (Trasnagh - Long Sheela), 7 (Long Rock - Ringdufferin Castle) and 9 (Quolie)
- improved wayfinding in 'The Narrows' (Zone 9)
- improved wayfinding for those coming from Portaferry / Strangford and heading north (Zone 10, 12 and 13)

All new AtoN should be IALA standards, and all existing structures retained should comply with the colour coding identified in IALA / AISM Maritime Buoyage system Region A (i.e. red = port, green = starboard).

5.2.3 Recommendation

It is recommended that Option 2; Enhance existing AtoN be taken forward.

5.3 Summary of Recommendation

A summary of the recommendations made under Section 5.1 and 5.2 is included in the table below:

Table 49. Provision of new AtoN

Name	Irish Light Number	Map Ref	Council area	Recommendation
West Channel		P03	NM&D DC	Install [part of primary arterial route]
St Patrick's Rock		E01	Outside boundary	Retain [part of primary arterial route]
Outside Council Area		E03	A&ND BC	Retain [part of primary arterial route]
Garter Rock			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
South Angus Beacon	LA0188.0000		NM&D DC	Transfer to central management group
Angus Rock	LA0188.0500	E02	NM&D DC	Retain [part of primary arterial route]
Paddy Lug	LA0197.8100	P04	A&ND BC	Retain [part of primary arterial route]
Dogtail Point (Front lead)	LA0188.1000	E04	NM&D DC	Retain [part of primary arterial route]
Cloghy Rocks			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Salt Rock	LA0188.4000	E05	NM&D DC	Retain [part of primary arterial route]
Gowland's Rock (Rear Lead)	LA0188.5000	E06	NM&D DC	Retain [part of primary arterial route]
Black Islands			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Scotchman's Rock			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Black Boat Perch BB Bay	LA0188.8000	P06	A&ND BC	Not seen during 2021 Irish Lights survey. New starboard lateral to be installed [part of primary arterial route]
Portaferry Outer Buoy	LA0190.3000		A&ND BC	Transfer to central management group / third party
Portaferry Marina Breakwater	LA0190.4000		A&ND BC	Transfer to central management group / third party
Portaferry Pontoon Inner Buoy	LA0190.5000		A&ND BC	Transfer to central management group / third party
Portaferry Speed Limit Buoy	LA0190.6000		A&ND BC	Transfer to central management group
Strangford Boat House Post	LA0190.2000	E23	NM&D DC	Retain [part of primary arterial route]

STRANGFORD LOUGH

Project number: 60705982

74

Name	Irish Light Number	Map Ref	Council area	Recommendation
Swan Island			DFI Owned	Doesn't appear on Irish Lights Register. Transfer to central management group / third party if found
Swan Island			DFI Owned	Doesn't appear on Irish Lights Register. Transfer to central management group / third party if found
Swan Island			DFI Owned	Doesn't appear on Irish Lights Register. Transfer to central management group / third party if found
Strangford Mooring Buoy N	LA0189.6000	E07	NM&D DC	Transfer to central management group / third party
Strangford Mooring Buoy S	LA0189.5000	E08	NM&D DC	Transfer to central management group / third party
Church Point	LA0189.8000	E09	NM&D DC	Retain [part of primary arterial route]
Strangford Point East Pole	LA0189.9000		NM&D DC	Transfer to central management group
Strangford Point West Pole	LA0190.0000		NM&D DC	Transfer to central management group
Sleitch Rock Pole	LA0190.1000		NM&D DC	Transfer to central management group
QUB Swimmer Turbine	LA0190.7550		Private owner	Transfer to central management group / third party
Walter Rocks	LA0190.8000		A&ND BC	Transfer to central management group
The Gray Stone			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Johns Rock			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Johns Wee Rock			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Ballyhenry Spar	LA0190.8300		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Ballyhenry Speed Limit Buoy	LA0190.8500		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Ballyhenry Point	LA0190.9000	E10	NM&D DC	Retain [part of primary arterial route]
Skate Rock	LA0191.0000	P11	NM&D DC	Replace [part of primary arterial route]
Toad Stone	LA0191.9000	P09	NM&D DC	Replace [part of primary arterial route]
Gores Island	LA0192.1000		NM&D DC	Transfer to central management group
Gibbs Island	LA0192.0000		NM&D DC	Transfer to central management group
Quoile East	LA0192.2000		NM&D DC	Transfer to central management group
Quoile Pole	LA0192.1500		NM&D DC	Transfer to central management group
Quoile Speed Limit Buoy	LA0191.9500		NM&D DC	Transfer to central management group
Bradley	LA0191.8000		NM&D DC	Transfer to central management group
Town Rock	LA0191.5000	E11	NM&D DC	Retain [part of primary arterial route]
Town Rock			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Town rock (shoal)			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Killyleagh Speed Limit	LA0191.7000		NM&D DC	Transfer to central management group
Mill Rock	LA0191.3000		NM&D DC	Transfer to central management group
Near Mill Rock 1	LA0191.3100		NM&D DC	Transfer to central management group
Near Mill Rock 2	LA0191.3200		NM&D DC	Transfer to central management group

STRANGFORD LOUGH

Project number: 60705982

75

Name	Irish Light Number	Map Ref	Council area	Recommendation
Near Mill Rock 3	LA0191.3300		NM&D DC	Transfer to central management group
Barrel Rock	LA0191.2000	P12	NM&D DC	Retain [part of primary arterial route]
Long Rock South	LA0191.2500		NM&D DC	Transfer to central management group
Dunynneill Island			NM&D DC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Selk Rock	LA0193.4000	P26	NM&D DC	Modify and Retain [part of primary arterial route]
Selk South	LA0193.5000		NM&D DC	Transfer to central management group
East Down Port	LA0193.3000		NM&D DC	Transfer to central management group
East Down Starboard	LA0193.2000		NM&D DC	Transfer to central management group
East Down Speed limit	LA0193.1000		NM&D DC	Transfer to central management group
Limestone Pladdy	LA0193.6000		NM&D DC	Transfer to central management group
Limestone Rock	LA0194.0000	E12	NM&D DC	Retain [part of primary arterial route]
Limestone Rock Pole	LA0194.1000	E13	NM&D DC	Retain [part of primary arterial route]
Limestone South	LA0193.7000		NM&D DC	Transfer to central management group
Cable Mark Islandmore	LA0194.9700		NM&D DC	Transfer to central management group / third party
Ringhaddy Speed Limit 2	LA0194.9600		NM&D DC	Transfer to central management group
Ringhaddy Cable East	LA0194.9500		NM&D DC	Transfer to central management group / third party
Ringhaddy Cable West	LA0194.9400		NM&D DC	Transfer to central management group / third party
Ringhaddy Pole	LA0194.9200		NM&D DC	Transfer to central management group
Islandmore SW	LA0194.9000		NM&D DC	Transfer to central management group
Ringhaddy Pontoon	LA0194.8500		NM&D DC	Transfer to central management group
Ringhaddy Rear	LA0194.8100		NM&D DC	Transfer to central management group
Ringhaddy Front	LA0194.8000		NM&D DC	Transfer to central management group
Ringhaddy Mooring Buoy	LA0194.7500		NM&D DC	Transfer to central management group
Ringhaddy Speed Limit 1	LA0194.7000		NM&D DC	Transfer to central management group
Verde Rocks	LA0194.5000	P25	NM&D DC	Modify and Retain [part of primary arterial route]
Black Rock Sign	LA0194.3500		NM&D DC	Transfer to central management group
Brown Rock Pladdy	LA0194.3000		NM&D DC	Transfer to central management group
Brown Rock	LA0194.4000		NM&D DC	Transfer to central management group
Simmy Perch	LA0194.2000		NM&D DC	Transfer to central management group
Janes Rock	LA0195.4000		NM&D DC	Transfer to central management group
Long Sheelah	LA0195.3500	E22	NM&D DC	Retain [part of primary arterial route]
Long Sheelagh E	LA0195.5000		NM&D DC	Transfer to central management group
Sand Rock	LA0195.7000		NM&D DC	Transfer to central management group
Hadd	LA0195.8000	P22	NM&D DC	Modify and Retain [part of primary arterial route]
Sand Rock Pladdy	LA0195.9000	P21	NM&D DC	Modify and Retain [part of primary arterial route]
Dunsy Island Pole	LA0194.9900		NM&D DC	Transfer to central management group
Dunsy Island Pole 2	LA0194.9900		NM&D DC	Transfer to central management group
Parton	LA0196.5000		A&ND BC	Transfer to central management group
Roe Spar	LA0196.6500		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found

STRANGFORD LOUGH

Project number: 60705982

76

Name	Irish Light Number	Map Ref	Council area	Recommendation
Roe	LA0196.6000		A&ND BC	Transfer to central management group
Dead Mans Rock	LA0196.8000	E14	A&ND BC	Retain [part of primary arterial route]
Spar near Dead Mans Rock	LA0196.8100		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Spar West of Trasnagh	LA0198.0500		A&ND BC	Transfer to central management group
Trasnagh NW	LA0198.0000		A&ND BC	Transfer to central management group
Braddock Pole 1	LA0197.0000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Braddock Pole 2	LA0197.1000		A&ND BC	Transfer to central management group
Braddock Pole 3	LA0197.2000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Braddock Island	LA0196.9500		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Braddock Point	LA0196.9000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Spar Nr Braddock Island	LA0197.2100		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Strangford YC Pole	LA0196.8700		A&ND BC	Transfer to central management group
Francis Rock			A&ND BC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Sketrick South	LA0196.8200		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Rainey Tide Warning	LA0198.2700		A&ND BC	Transfer to central management group
Rainey Island North	LA0198.2500		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Rainey Island East	LA0198.2000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Rainey Island West	LA0198.2800		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Spar near Lythe Rock	LA0198.3000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Calf Island West	LA0198.1000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Calf Island	LA0198.1500		A&ND BC	Transfer to central management group
Rig Pladdy	LA0198.5000	P14	A&ND BC	Modify and Retain [part of primary arterial route]
Gull Rock	LA0198.6000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Gull rock Pladdy	LA0198.7000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Mahee Point	LA0199.0000	E15	A&ND BC	Retain [part of primary arterial route]
Comber River			A&ND BC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Comber River			A&ND BC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Comber River			A&ND BC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
S Boretree Rocks			A&ND BC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Whaup Rock	LA0199.3000		A&ND BC	Transfer to central management group
The Ragheries			A&ND BC	Doesn't appear on Irish Lights Register. Transfer to central management group if found

STRANGFORD LOUGH

Project number: 60705982

77

Name	Irish Light Number	Map Ref	Council area	Recommendation
Downey's Rock	LA0198.9000	P13	A&ND BC	Install [part of primary arterial route]
Downey's Pladdy	LA0198.8500		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Sheelagh's Island	LA0198.8000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Kircubbin Pole 2	LA0198.4400		A&ND BC	Transfer to central management group
Kircubbin Pole	LA0198.400		A&ND BC	Transfer to central management group
Kircubbin Speed Limit	LA0198.4600		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Kircubbin Approaches Tip Reef	LA0196.1100	E16	A&ND BC	Retain [part of primary arterial route]
Kircubbin Approaches Buoy Hoskyn's Shoal	LA0196.1200	E17	A&ND BC	Retain [part of primary arterial route]
Kircubbin Approaches Buoy Sand Rock Pladdy	LA0196.1300	E18	A&ND BC	Retain [part of primary arterial route]
Kircubbin Approaches Buoy Roads Starboard	LA0196.1400	E19	A&ND BC	Retain [part of primary arterial route]
Kircubbin Approaches Buoy Roads Port	LA0196.1500	E20	A&ND BC	Retain [part of primary arterial route]
Gransha Point	LA0196.0000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Newtown Rock	LA0197.9000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Newtown Rock Spar	LA0197.7500		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Newtown Spar	LA0197.9500		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
White Bank Pladdy	LA0197.8000		A&ND BC	Transfer to central management group
Round Skart Rock	LA0197.7000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Round Skart West	LA0197.7400		A&ND BC	Transfer to central management group
Skart Rock Pladdy	LA0197.6000		A&ND BC	Transfer to central management group
Dullisk Rock	LA0197.5000		A&DC BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Michaels Rock	LA0197.4000	P15	A&DC BC	Modify and Retain [part of primary arterial route]
Bird Point	LA0199.1000		A&ND BC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Washer Rock	LA0197.3000		A&NDBC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
West Rock Spar	LA0196.3800	P16	A&NDBC	Modify and Retain [part of primary arterial route]
South Rock Spar	LA0196.3500	P17	A&NDBC	Not seen during 2021 Irish Lights survey. Transfer to central management group if found
Slave Rock	LA0196.3000	P19	A&NDBC	Modify and Retain [part of primary arterial route]
Slave Spar	LA0196.2500		A&NDBC	Transfer to central management group
Gransha Point			A&NDBC	Doesn't appear on Irish Lights Register. Transfer to central management group if found
Craigyouran	LA0195.1000	E21	A&ND BC	Retain [part of primary arterial route]
Strangford Mussels 4	LA0195.9400		Private owner	Transfer to central management group / third party
Strangford Mussels 3	LA0195.9300		Private owner	Transfer to central management group / third party

STRANGFORD LOUGH

Project number: 60705982

78

Name	Irish Light Number	Map Ref	Council area	Recommendation
Strangford Mussels 2	LA0195.9200		Private owner	Transfer to central management group / third party
Strangford Mussels 1	LA0195.9100		Private owner	Transfer to central management group / third party
Strangford YC Speed Limit Buoy	LA0196.8500		NM&D DC	Transfer to central management group
Water Quality Mark	LA0199.5000		A&ND BC	Transfer to central management group / third party
Minesto Test Site North	LA0190.8100		Private owner	Transfer to central management group / third party
Scrabo Tower AERO	LA0199.4000		A&ND BC	Transfer to central management group / third party
Blackdog Rock		P18	A&ND BC	Install [part of primary arterial route]
Dunsey Pladdy		P20	NM&D DC	Install [part of primary arterial route]
Strife Rock		P23	NM&D DC	Install [part of primary arterial route]
Rathgorman Pladdies		P24	NM&D DC	Install [part of primary arterial route]
Long Rock		P27	NM&D DC	Install [part of primary arterial route]
Long Rock		P28	NM&D DC	Install [part of primary arterial route]
Rat Island		P08	NM&D DC	Install [part of primary arterial route]
The Scotchman		P10	NM&D DC	Install [part of primary arterial route]
Black Islands		P05	NM&D DC	Install [part of primary arterial route]
Zara Shoal		P07	NM&D DC	Install [part of primary arterial route]
Strangford leading lights Rear			DFI Owned	Transfer to central management group / third party
Strangford Leading Lights Front			DFI Owned	Transfer to central management group / third party
Strangford Entrance		P01	Outside boundary	Install [part of primary arterial route]
Strangford Entrance		P02	Outside boundary	Install [part of primary arterial route]

6. Conclusions, recommendations and next steps

In pursuance of their duties as Local Lighthouse Authorities, Ards and North Down Borough Council (ANDBC) and Newry Mourne and Down District Council (NMDDC) have undertaken a review of the existing Aids to Navigation (AtoN) in Strangford Lough, following the process set out in the International Association of Lighthouse Authorities (IALA) published *IALA Guideline G1138 – The use of the Simplified IALA Risk Assessment Method (SIRA)* has been used as the basis for this report.

Through the risk assessment process, it has been established that the existing AtoN service provision within the Lough is inadequate. Stakeholder meetings were undertaken to assist in the risk assessment process. One of the main items of general feedback from the stakeholder meetings was the lack of consistency in the standard of the AtoN within the Lough. Several items of feedback were also provided on a zone-specific basis.

The following recommendations are put forward:

- **a further comprehensive survey of all existing AtoN should be undertaken to allow the Register to be updated accordingly with regards to the number and condition of existing AtoN. This is imperative to enable a full assessment of the number and condition of existing AtoN and establish ownership responsibility.**
- **all AtoN within the study area should be standardised to provide consistency, with the proposal that all recognised AtoN along the primary arterial route be compliant with IALA Standards.**
- **a holistic approach to the management of AtoN on the Lough be undertaken, with a centralised and coordinated management group formed.**
- **enhancement of the existing AtoN service provision be undertaken through a combination of retaining existing AtoN, undertaking repairs to existing AtoN and the provision of new AtoN.**
- **advise statutory bodies regarding updating the relevant Navigation Charts to reflect the enhanced arrangements**

It is recognised that a phased approach is necessary to enable implementation of the recommendations. In order to achieve this, it is considered that the comprehensive survey of all existing AtoN should be undertaken initially to verify the number and condition of the existing AtoN. Review / confirmation of the recommended AtoN provision can be made at this stage based on the findings of the survey. Following this a costing exercise should be undertaken to define the capital and maintenance costs associated with the proposals. This will allow a detailed report / proposal to be put forward for funding approval and the works undertaken. On completion of the AtoN enhancement works, the relevant Navigation Charts can then be updated to reflect the enhanced arrangements.

Alongside this, consideration should be given to the most appropriate means of achieving a centralised and coordinated management group for the ongoing management of the AtoN. This will require consideration of the appropriate representatives and stakeholders to be engaged with and a stakeholder engagement process undertaken.

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STRANGFORD LOUGH

Project number: 60705982

81

Appendix A Wrecks and Maritime Casualties

Wrecks and Maritime Casualties for cross reference, Source Arch Survey of Strangford Lough

No	Name	Date	Location	Circumstance of loss
1	Agnes	1823	Strangford Bar	Abandoned waterlogged
2	The Airth	1804	Off Strangford	Not known
3	Alisdair	1945 - 46	Ringhaddy Sound	Caught fire and sank
4	Andrew Savage	1812	Portaferry River (narrows)	Struck rock and sank
5	Ann	1766	Entrance to Strangford lough	Ran aground
6	Ann	1766	pladdies	Foundered
7	Ann	1813	Strangford Bar	Wrecked
8	The Ann & Bell	1803	Strangford	Not known
9	Argent	1850	In Strangford Lough	Not known
10	Aurora	1840	Off Strangford	Sank
11	Brother Jonathan	1854	Rocks near Portaferry	Wrecked following collision
12	The Brothers	1774?	On Strangford Bar	lost
13	The Brothers	1817	Near Strangford	Totally lost
14	The Catherine	1802	Near Strangford	Not known
15	Chance	1907	Kircubbin	Stranded in a sw force 5

16	The Cleverland	1741	Near Strangford	lost
17	Cumbrian	1816	On Pladdy Lug Bar	Stranded in sw by s force 8
18	The Diamond	1804	Near Strangford	Driven on shore
19	Dido C	1963 - 64	Near Strangford	Deliberately scuttled
20	Dinorah	1901	W Cloghy Rocks 1 M NNW of Ballyhenry.	Foundered after collision in calm conditions
21	Doctor	1877	Bankmore Bay?	Not known
22	Eagles Wing	1715	Rock Angus	wrecked
23	Echo	1820	Near Portaferry	Not known
24	Eleanor	1850	St Strangford	Became a wreck
25	The Elizabeth	1824	Paddy Lug	Struck on a rock
26	Ellen	1835	Near Downpatrick	Not known
27	Ellen Gilmore	1881	Strangford Lough	Not known
28	Ellida	1879	On the Quoile	Shipping casualty
29	The Emperor Alexander	1821	Cannon Rock Near Portaferry	Struck rocks
30	Empire Tana (The Lees)	1945 -46	Ballyhenry Bay	Mulberry harbour towed from normandy
31	Europe	1844	Downpatrick	wrecked
32	Example	1874	Strangford Lough	Stranded in a sw force 4

33	Falcon	1870	Between Maryport and Strangford	Supposedly foundered in se force 10
34	Fanny Crossfield	1945 post	Strangford Lough	Grounded laid up ringneil quay and dismantled
35	Fleece	1868	Quoile	burned
36	The Gallant	1818	Portaferry	Driven ashore
37	Gallovidian	1869	Black neb strangford	Stranded got off much damaged
38	Gardella	1867	Off strangford harbour	wrecked
39	The George Symes	1821	Camey Point nr Portaferry	struck
40	Glenlure	1880	Angus Rock	stranded
41	Globe	1910	Strangford Lough	Turned and struck
42	Golden Gleam	1870	Near strangford bar	Came ashore
43	Grandburg	1762	Near strangford bar	foundered
44	Happy return	1881	Swan island	stranded
45	Harriet Matilda	1856	Barnhill (Barr Hall) Rock	Wrecked on rock in fog
46	Helen	1834- 35	At Strangford	Not known
47	Helen Gilmore	1885	Old port point	Stranded in gale
48	The Herberts	1806	Near strangford	stranded
49	The Industry	1782	Near downpatrick	lost

50	Jean and Grace	1850	Strangford	Ashore s rock lighthouse brought to portaferry
51	The Jennett	1796	Near portaferry	lost
52	Jessie Rae	1884	Rock Angus	ballast stranded in ese force 4
53	The John	1817	Near strangford	Totally lost
54	Lady Anne	1853	Kilcleif	Went on rocks
55	Lady Proby	1862	Strangford bar	Stranded in nw force 9 partial loss
56	Leila	1886	Rock Angus off Garter Rock	Ran into rocks in a fog
57	Lion	1857	Rock Angus	Wrecked in ene force 9
58	Lion	1857	Strangford bar	stranded
59	Litchfield	1743	Kilcleif	Not known
60	Lizzie	1913	Old Court	Capsized, recovered, partial loss
61	Lough Long	1914	Strangford Bar	Wrecked in bad weather
62	The Lowther	1741	Near strangford	lost
63	The Loyalty	1813	In portaferry river – the narrows	Struck a rock and sank
64	The Magnet	1810	Near strangford	ashore
65	Manchester	1861	St patricks rocks 4m from pferry	Struck rocks
66	Margaret	1848 or 1852	Rock Angus	wreck

67	The Margaret and Anne	1825	Near portaferry	Beached and damaged
68	The Maria	1792	Near strangford	ashore
69	Marion	1881	Strangford lough	Shipping accident
70	The Mary	1741	Near strangford	lost
71	Mary and Anne	1860	On strangford bar	Struck the bar
72	Mary Anne	1877	Near church point strangford lough	stranded
73	The Minerva	1810	Near strangford	wrecked
74	The Molly	1794	Near strangford	Went on shore
75	The Molly	1820	Entrance to strangford	Wrecked about 18 may 1820
76	Nancy	1850	Ballyhurry bay (Ballyhenry)	Went ashore seriously damaged
77	The Nancy	1786	portaferry	lost
78	Nil Desperado	1786	Killyleagh bay	Stranded ene force 10
79	Nimble (the Pins)	1836	Ballyhenry Bay	Caught fire and burned
80	Nimble	1903	Rock angus	Stranded in s force 4
81	Norfolk	1881	Ballyhenry Point	Came ashore
82	Othello	1882	Cloghy point	stranded
83	Paroquet	1816	nr strangford	Not known

84	The Peggy	1783	Near strangford?	founded
85	Pomonian	1901	Near tara strangford lough	stranded
86	Pride	1851	strangford	Struck rock
87	Prosperity	1833	Near strangford	wrecked
88	Providence	1852	Centre of strangford bar	Sprang a leak in se force 9
89	Queensbury	1853	Black rocks strangford bar	Wrecked in sse force 9
90	Robert Edward Ward	1840	Paddy lug	Wrecked in fog
91	Santissimo Trinidad	1790	Ballykelly point nr portaferry	stranded
92	Seaman	1846	Kilclief	Came ashore
93	Slyboots	1885	Salt rock	stranded
94	Speedwell	1886	Rock angus	Stranded in N f10
95	The Tiger	1825	Near portaferry	Went ashore, got off discharged part of cargo
96	The Union	1794	Near portaferry	Went ashore
97	Vulcan	1843	At strangford	Ashore, got off, little damage
98	The William and Mary	1788	Near strangford	Stranded and bulged
99	Zephyr	1815	Near strangford	Not known
100	unknown	1741	Near strangford	lost

101	Unknown pleasure yacht	1834	Strangford lough	capsized
102	Unknown 2 masted vessel	1844	Strangford bar	Not known
103	unknown	1848	Rock Angus	Struck rock
104	Unknown large vessel	1850	Near strangford	foundered
105	unknown	1860	Pulder rock	Not known
106	unknown	1861	Paddy lug rock	stranded
107	unknown	1862	Long pladdy	Not known
108	unknown	1864	Salt rocks	stranded
109	unknown	1866	Rock angus	Not known
110	unknown	1869	Black island	stranded
111	unknown	1869	Rock angus	stranded
112	unknown	1874 - 75	Rock angus	stranded
113	unknown	1876-77	Doran rock	stranded
114	unknown	1876-77	Swan island	Not known
115	unknown	1878-79	Rock angus	stranded
116	unknown	1879-80	Hare island	stranded
117	Unknown two vessels	1879-80	Rock angus	stranded

118	unknown	1879-80	Salt rock	stranded
119	Unknown two vessels	1880-81	Swan island	stranded
120	unknown	1882-83	Rock angus	stranded
121	Unknown sailing vessel	1883-84	Strangford harbour	Partial loss
122	unknown	1885-86	Paddy lug Ballyquintin	stranded
123	unknown	1885-86	Rock angus	stranded
124	unknown	1885-86	Salt rock	stranded
125	unknown	1886-87	Rock angus	stranded
126	unknown	1887-88	Rock angus	stranded
127	unknown	1893-94	Salt rock	stranded
128	unknown	1894-95	Paddy lug Ballyquintin	stranded
129	unknown	1898-99	Oyster rock	stranded
130	unknown	1899-1900	St patricks rocks	stranded
131	unknown	1902-03	Limestone rock	stranded
132	unknown	1903-04	Bar pladdy	stranded
133	unknown	1908-09	Bar pladdy	stranded
134	Unknown Steam vessel	1908 or 1909	Portaferry harbour	Stranded total loss

135	Unknown small drifter	unknown	E side Ballyhenry island	stranded
136	unknown	unknown	N542214W053408	unknown
137	unknown	unknown	Near strangford	unknown

STRANGFORD LOUGH

Project number: 60705982

Appendix B Register of AtoN

LA0190.4000	Portlerry Marina Breakwater	Ards and North Down Borough Council	Strangford	Beacon (Lighted)	Sectioned Light	Iso WRG 4s	Permanent AIGN 005°32.965'W	54°22.731'N	Portlerry Regeneration Ltd	3	3	Mains	G:20°-02'1" (61°) W021°- (097°(6°) R097°-140'(63°)	None
LA0190.3000	Portlerry Outer Buoy	Ards and North Down Borough Council	Strangford	Buoy (Unlighted)	Lateral Starboard		Permanent AIGN 005°32.914'W	54°22.483'N	Portlerry Regeneration Ltd	3				Green Cone
LA0188.8000	Black Boat Perch	Ards and North Down Borough Council	Strangford	Beacon (Unlighted)	Perch (Unlighted)		Permanent AIGN 005°32.547'W	54°22.497'N	Ards and North Down Borough Council	3				None

STRANGFORD LOUGH


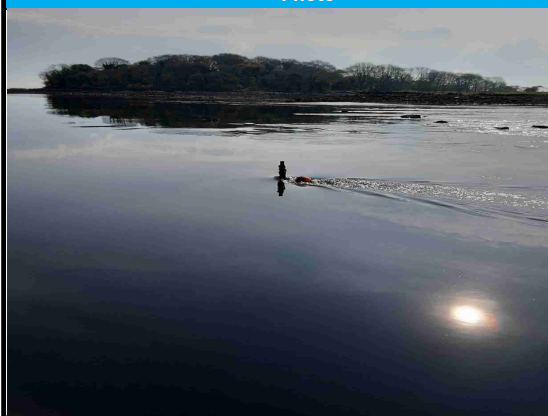
Project number: 60705982



94


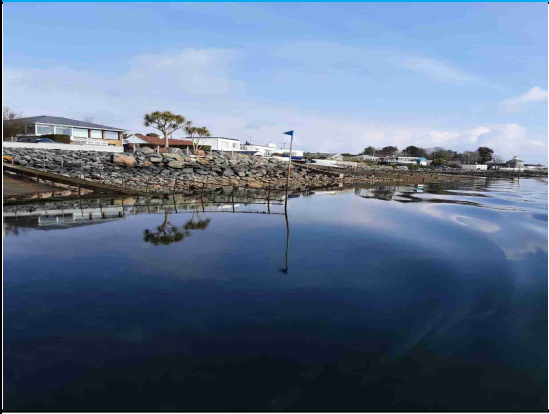
Appendix C 2021 Survey of AtoN





Date inspected	AtoN Id	AtoN Name	Inspection Outcome	Inspection Detail	AtoN Type	AtoN Sub Type	AtoN owner / 3rd party / maintenance
21/04/2021	LA0190.8100	Minesto Test Site (North)	As Required		Buoy (Lighted)	Special Mark	Minesto
21/04/2021	LA0199.4000	Scabo Tower Aero	As Required		Beacon (Lighted)	Aircraft Warning	
20/04/2021	LA0190.3000	Portaferry Outer Buoy	As Required		Buoy (Unlighted)	Lateral Starboard	Portaferry Marina
20/04/2021	LA0190.4000	Portaferry Marina Breakwater	As Required		Beacon (Lighted)	Sectored	Portaferry Marina
20/04/2021	LA0190.5000	Portaferry Pontoon Inner Buoy	As Required		Buoy (Unlighted)	Lateral Starboard	Portaferry Marina
20/04/2021	LA0190.6000	Portaferry Speed Limit Buoy	As Required		Buoy (Unlighted)	Special Mark	
20/04/2021	LA0195.1000	Craigyoueran	As Required		Beacon (Lighted)	West Cardinal	Ards & North Down Borough Council
20/04/2021	LA0196.8000	Dead Mans Rock	As Required		Beacon (Lighted)	East Cardinal	Ards & North Down Borough Council
20/04/2021	LA0196.8500	Strangford YC Speed Limit	As Required		Beacon (Lighted)	Special Mark	
20/04/2021	LA0197.8000	White Blank Pladdy	As Required		Beacon (Unlighted)		
20/04/2021	LA0197.8100	Pladdy Lug	As Required		Beacon (Unlighted)		
20/04/2021	LA0198.1500	Calif Island	As Required		Beacon (Unlighted)	Stone Beacon	
20/04/2021	LA0198.2700	Rainey Tide Warning	As Required		Beacon (Unlighted)	Stone Beacon	
20/04/2021	LA0198.4000	Kircubbin Pole	As Required		Beacon (Unlighted)	Cable / Pipeline Marker	
20/04/2021	LA0198.4400	Kircubbin Pole 2	As Required		Beacon (Unlighted)		
20/04/2021	LA0199.0000	Mahee Point	As Required		Beacon (Lighted)	Sectored	Ards & North Down Borough Council
20/04/2021	LA0199.5000	Water Quality Mark	As Required		Buoy (Lighted)	Special Mark	
20/04/2021	LA0190.8000	Walter Rocks	Minor Discrepancy	Renewal Required	Beacon (Unlighted)	Perch	
20/04/2021	LA0196.1100	Kircubbin Approaches Buoy TIP REEF	Minor Discrepancy	Topmark missing	Buoy (Lighted)	South Cardinal	Ards & North Down Borough Council
20/04/2021	LA0196.1200	Kircubbin Approaches Buoy HOSKYNS SHOAL	Minor Discrepancy	Topmark missing	Buoy (Lighted)	Lateral Starboard	Ards & North Down Borough Council
20/04/2021	LA0196.1300	Kircubbin Approaches Buoy SAND ROCK PLADDY	Minor Discrepancy	Renewal Required	Buoy (Lighted)	Lateral Port	Ards & North Down Borough Council
20/04/2021	LA0196.1400	Kircubbin Approaches Buoy ROADS STARBOARD	Minor Discrepancy	Topmark missing	Buoy (Lighted)	Lateral Starboard	Ards & North Down Borough Council
20/04/2021	LA0196.1500	Kircubbin Approaches Buoy ROADS PORT	Minor Discrepancy	Renewal Required	Buoy (Lighted)	Lateral Port	Ards & North Down Borough Council
20/04/2021	LA0196.5000	Parton	Minor Discrepancy	Renewal Required	Beacon (Unlighted)		
20/04/2021	LA0196.6000	Roe	Minor Discrepancy	Renewal Required	Beacon (Unlighted)	Perch	
20/04/2021	LA0196.8700	Strangford YC Pole	Minor Discrepancy	Renewal Required	Beacon (Unlighted)		
20/04/2021	LA0197.1000	Bradock Pole 2	Minor Discrepancy	Renewal Required	Beacon (Unlighted)		
20/04/2021	LA0197.4000	Michaels Rock	Minor Discrepancy	Renewal Required	Beacon (Unlighted)	Perch	
20/04/2021	LA0197.6000	Skart Rock Pladdy	Minor Discrepancy	Renewal Required	Beacon (Unlighted)		
20/04/2021	LA0197.7400	Round Skart West	Minor Discrepancy	Renewal Required	Beacon (Unlighted)		
20/04/2021	LA0197.9500	Newtown Spar	Minor Discrepancy	Renewal Required	Buoy (Unlighted)		
20/04/2021	LA0198.0000	Trasnagh NW	Minor Discrepancy	Topmark missing	Beacon (Unlighted)		
20/04/2021	LA0198.5000	Rig Pladdy	Minor Discrepancy	Renewal Required	Beacon (Unlighted)	Perch	
20/04/2021	LA0199.3000	Whaup Rock	Minor Discrepancy	Renewal Required	Beacon (Unlighted)		
02/11/2021	LA0196.3800	West Rock Spar	Major Discrepancy	Renewal Required	Buoy (Unlighted)		
20/04/2021	LA0188.8000	Black Boat Perch	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	Perch	
20/04/2021	LA0190.8300	Ballyhenry Spar	Major Discrepancy	Not Seen (not found/located)	Buoy (Unlighted)		
20/04/2021	LA0190.8500	Ballyhenry Speed Limit Buoy	Major Discrepancy	Not Seen (not found/located)	Buoy (Unlighted)	Special Mark	
20/04/2021	LA0196.0000	Gransha Point	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	Stone Tower	
20/04/2021	LA0196.6500	Roe Spar	Major Discrepancy	Not Seen (not found/located)	Buoy (Unlighted)		
20/04/2021	LA0196.8100	Spar Near Dead Mans Rock	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)		
20/04/2021	LA0196.8200	Skestrick South	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)		
20/04/2021	LA0196.9000	Bradock Point	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)		
20/04/2021	LA0196.9500	Bradock Island	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)		
20/04/2021	LA0197.0000	Bradock Pole 1	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)		


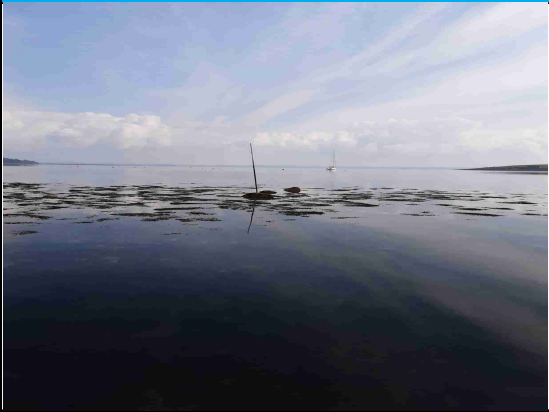
20/04/2021	LA0197.2000	Braddock Pole 3	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0197.2100	Spar Near Braddock Island	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0197.3000	Washer Rock	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	Perch
20/04/2021	LA0197.5000	Dullisk Rock	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0197.7000	Round Skart Rock	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	Perch
20/04/2021	LA0197.7500	Newtown Rock Spar	Major Discrepancy	Not Seen (not found/located)	Buoy (Unlighted)	
20/04/2021	LA0197.9000	Newtown Rock	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	Perch
20/04/2021	LA0198.0500	Spar J West of Trashagh	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0198.1000	Calf Island West	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0198.2000	Rainey Island East	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0198.2500	Rainey Island North	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0198.2800	Rainey Island West	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0198.3000	Spar Near Lythe Rock	Major Discrepancy	Not Seen (not found/located)	Buoy (Unlighted)	
20/04/2021	LA0198.4600	Kircubbin Speed Limit	Major Discrepancy	Not Seen (not found/located)	Buoy (Unlighted)	Special Mark
20/04/2021	LA0198.6000	Gull Rock	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0198.7000	Gull Rock Pladdy	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
20/04/2021	LA0198.8500	Downeys Pladdy	Major Discrepancy	Not Seen (not found/located)	Buoy (Unlighted)	
20/04/2021	LA0198.9000	Downey's Rock	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	Perch
20/04/2021	LA0199.1000	Bird Point	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	Perch
02/11/2021	LA0196.2500	Slave Spar	Major Discrepancy	Not Seen (not found/located)	Buoy (Unlighted)	
02/11/2021	LA0196.3000	Slave Rock	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	
02/11/2021	LA0198.8000	Sheelaha Island	Major Discrepancy	Not Seen (not found/located)	Beacon (Unlighted)	Perch
Not inspected	LA0196.3500	South Rock Spar	Major Discrepancy	Reported missing	Buoy (Unlighted)	


 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7339
LLA	Ards and North Down Borough Council						
Local AtoN	Rainey Island Westis already bound to job						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN			base of AtoN sighted			
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							


 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7340
LLA	Ards and North Down Borough Council						
Local AtoN	Rainey Tide Warning						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Correct / Good Order						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							


 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7341
LLA	Ards and North Down Borough Council				
Local AtoN	Sketrick South				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	not seen (not found/located)				
Defect Found:	Defect				
Working but not approved					
Light Defect					
Physical Defect					
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Major Discrepancy	Contact Details			
Photo		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
					


 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7342																											
LLA	Ards and North Down Borough Council																															
Local AtoN	Strangford YC Pole																															
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON																														
Date of Inspection	20/04/2021																															
<table border="1"> <thead> <tr> <th>Question</th> <th>Answer</th> </tr> </thead> <tbody> <tr> <td>AtoN Type</td> <td>Permanent AtoN</td> </tr> <tr> <td>Inspection Method</td> <td>Physical</td> </tr> <tr> <td>Inspection</td> <td>Defect found</td> </tr> <tr> <td>Defect Found:</td> <td style="background-color: red;">Defect</td> </tr> <tr> <td>Working but not approved</td> <td></td> </tr> <tr> <td>Light Defect</td> <td></td> </tr> <tr> <td>Physical Defect</td> <td>Renewal required</td> </tr> <tr> <td>AIS/Racon fault</td> <td></td> </tr> <tr> <td>Positional Defect</td> <td></td> </tr> <tr> <td>Maintenance required</td> <td></td> </tr> <tr> <td>Other</td> <td></td> </tr> <tr> <td>Inspection Outcome</td> <td>Minor Discrepancy</td> </tr> </tbody> </table>		Question	Answer	AtoN Type	Permanent AtoN	Inspection Method	Physical	Inspection	Defect found	Defect Found:	Defect	Working but not approved		Light Defect		Physical Defect	Renewal required	AIS/Racon fault		Positional Defect		Maintenance required		Other		Inspection Outcome	Minor Discrepancy	<table border="1"> <thead> <tr> <th>Inspection notes</th> </tr> </thead> <tbody> <tr> <td style="height: 100px;"></td> </tr> </tbody> </table>			Inspection notes	
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AtoN Type	Permanent AtoN																															
Inspection Method	Physical																															
Inspection	Defect found																															
Defect Found:	Defect																															
Working but not approved																																
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AIS/Racon fault																																
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Inspection notes																																
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Contact Details																																
Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie																																



 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7345
LLA	Ards and North Down Borough Council				
Local AtoN	Bradock Pole 2				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Defect found				
Defect Found:	Defect				
Working but not approved					
Light Defect					
Physical Defect	Renewal required				
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Minor Discrepancy	Contact Details			
Photo		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
					


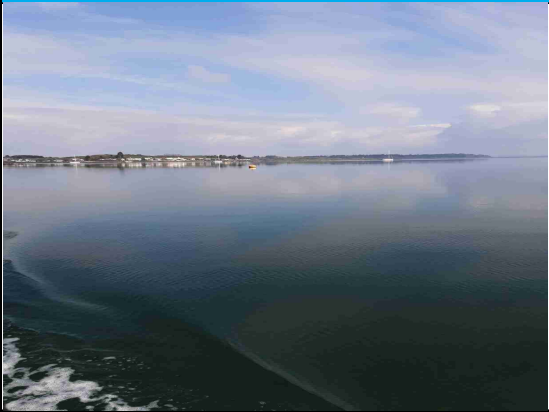
 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2>Local AtoN Inspection Report</h2>		GP ID	7346
LLA	Ards and North Down Borough Council				
Local AtoN	Bradock Pole 3				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtoN			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Not Seen (not found/located)				
Defect Found:					
Working but not approved					
Light Defect					
Physical Defect					
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Major Discrepancy		Contact Details		
Photo		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


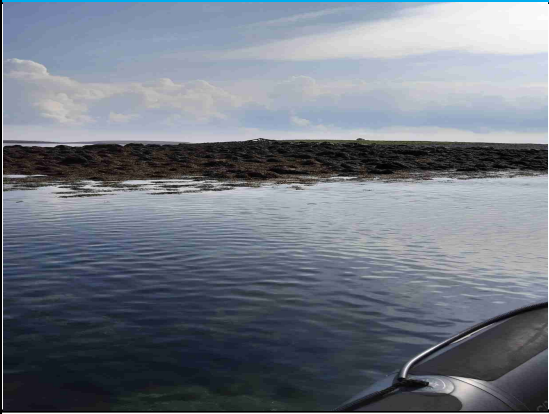
 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7347
LLA	Ards and North Down Borough Council						
Local AtoN	Bradock Pole 1						
Irish Lights Inspector	Joseph Daly			Sanctioned			
Date of Inspection	20/04/2021			LAtON			
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
 AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


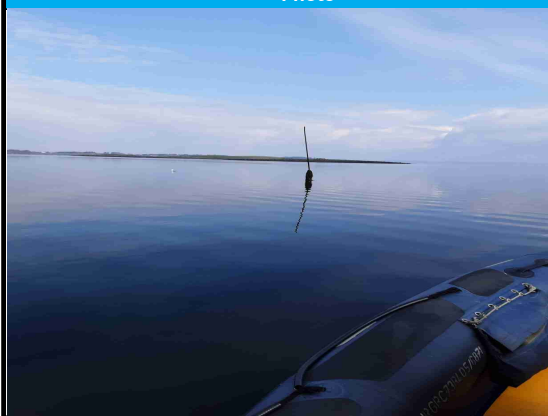
 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7348
LLA	Ards and North Down Borough Council						
Local AtoN	Spar Near Braddock Island						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question							
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy						
Photo				Inspection notes			
Photo				Contact Details			
				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7349
LLA	Ards and North Down Borough Council						
Local AtoN	Bradock Island						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy						
Photo				Contact Details			
				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


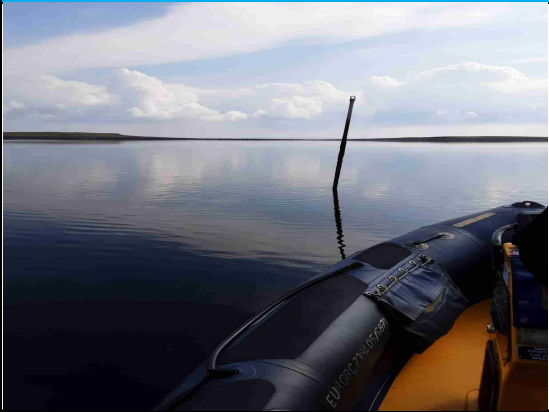
 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7350
LLA	Ards and North Down Borough Council						
Local AtoN	Bradock Point is already bound to job						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							


 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h2>Local AtoN Inspection Report</h2>		GP ID	7351
LLA					
Local AtoN	#VALUE!				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtoN			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN	unsanctioned speed limit buoy			
Inspection Method	Physical				
Inspection	Defect found				
Defect Found:	Defect				
Working but not approved	Fit for purpose (not Irish Lights Approved)				
Light Defect					
Physical Defect					
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Major Discrepancy				
Photo		Contact Details			
		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7352
LLA	Ards and North Down Borough Council				
Local AtoN	Parton				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN	only the base of AtoN sighted.			
Inspection Method	Physical				
Inspection	Defect found				
Defect Found:	Defect				
Working but not approved					
Light Defect					
Physical Defect	Renewal required				
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Major Discrepancy	Contact Details			
Photo		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
					


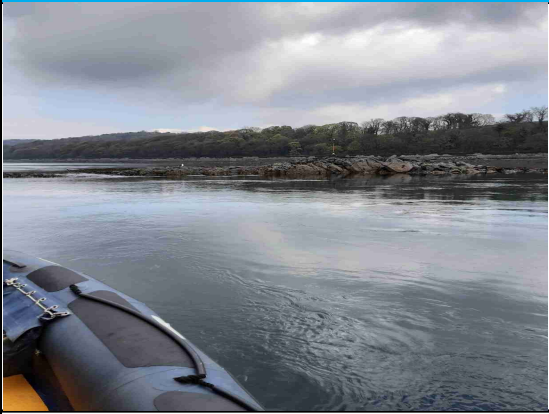
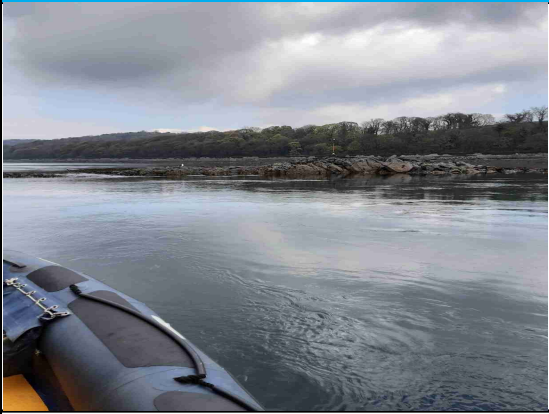
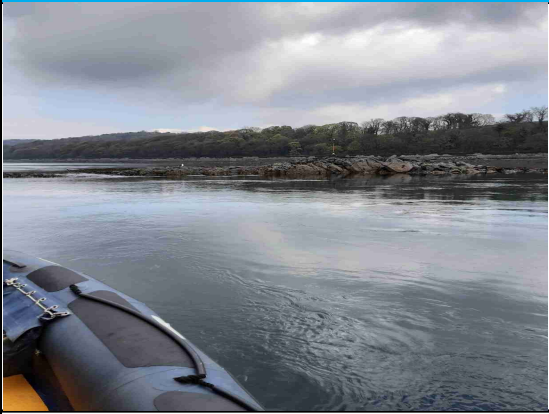
 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7353
LLA	Ards and North Down Borough Council						
Local AtoN	Roe						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Defect found						
Defect Found:	Defect						
Working but not approved							
Light Defect							
Physical Defect	Renewal required,Leaning (not upright)						
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Minor Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							


 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2>Local AtoN Inspection Report</h2>		GP ID	7354
LLA	Ards and North Down Borough Council				
Local AtoN	Roe Spar				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtoN			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN	named as spar. database shows as buoy. neither sighted.			
Inspection Method	Physical				
Inspection	Not Seen (not found/located)				
Defect Found:					
Working but not approved					
Light Defect					
Physical Defect					
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Major Discrepancy				
Photo		Contact Details			
		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7355
LLA							
Local AtoN	#VALUE!						
Irish Lights Inspector	Joseph Daly			Sanctioned			
Date of Inspection	20/04/2021			LAtoN			
Question				Inspection notes			
AtoN Type	Permanent AtoN			unsanctioned			
Inspection Method	Physical						
Inspection	Defect found						
Defect Found:	Defect						
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other	Other						
Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							


 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7365																														
LLA		Ards and North Down Borough Council																																			
Local AtoN		Ballyhenry Speed Limit Buoy																																			
Irish Lights Inspector		Joseph Daly		Sanctioned																																	
Date of Inspection		20/04/2021		LAtON																																	
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Inspection Outcome	Major Discrepancy																																				
Inspection notes																																					
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Photo																																					
Contact Details																																					
Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie																																					





 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7366																														
LLA		Ards and North Down Borough Council																																			
Local AtoN		Ballyhenry Spar																																			
Irish Lights Inspector		Joseph Daly		Sanctioned																																	
Date of Inspection		20/04/2021		LAtON																																	
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Inspection Method	Physical																																				
Inspection	Not Seen (not found/located)																																				
Defect Found:																																					
Working but not approved																																					
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Maintenance required																																					
Other																																					
Inspection Outcome	Major Discrepancy																																				
Inspection notes																																					
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LLA	Ards and North Down Borough Council																															
Local AtoN	Walter Rocks																															
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON																														
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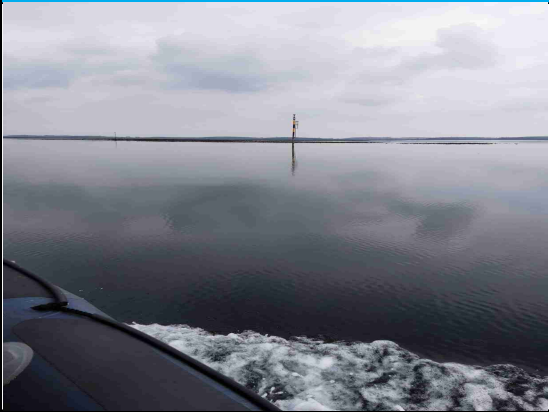
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LLA	Ards and North Down Borough Council						
Local AtoN	Portaferry Pontoon Inner Buoy						
Irish Lights Inspector	Joseph Daly			Sanctioned			
Date of Inspection	20/04/2021			LAtON			
Question		Inspection notes					
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Correct / Good Order						
Defect Found:							
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Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required						
Photo		Contact Details					
		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie					


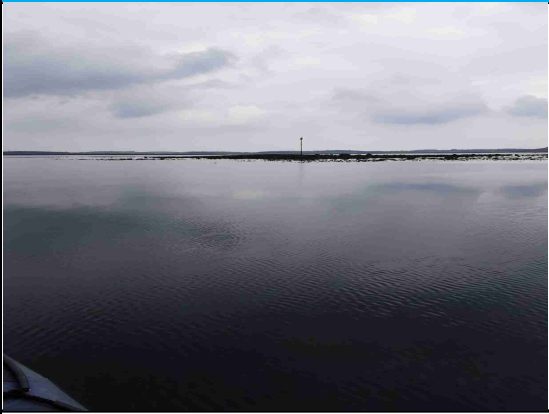
 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7370																												
LLA		Ards and North Down Borough Council																																	
Local AtoN		Portaferry Outer Buoy																																	
Irish Lights Inspector		Joseph Daly		Sanctioned																															
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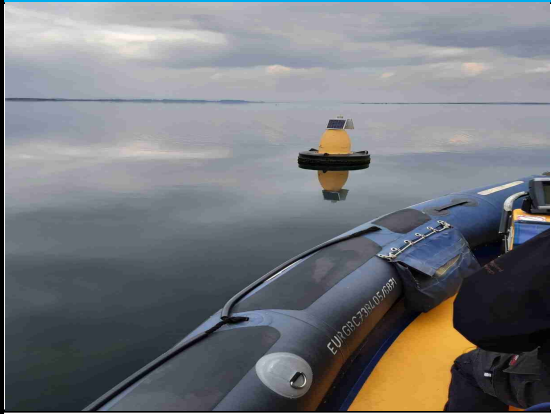
 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7371
LLA	Ards and North Down Borough Council						
Local AtoN	Portaferry Marina Breakwater						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Correct / Good Order						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


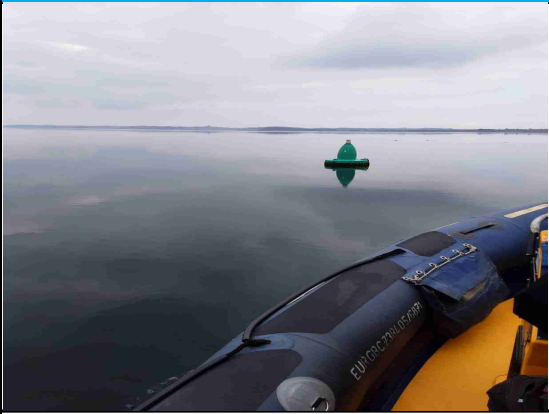
 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7372																												
LLA	Ards and North Down Borough Council																																
Local AtoN	Black Boat Perch																																
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON																															
Date of Inspection	20/04/2021																																
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7373
LLA	Ards and North Down Borough Council						
Local AtoN	changed to LA0197.8100 Pladdy Lug						
Irish Lights Inspector	Joseph Daly			Sanctioned			
Date of Inspection	20/04/2021			LAtON			
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Visual						
Inspection	Correct / Good Order						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


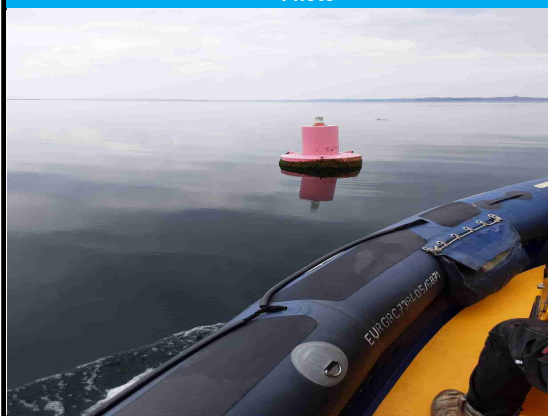
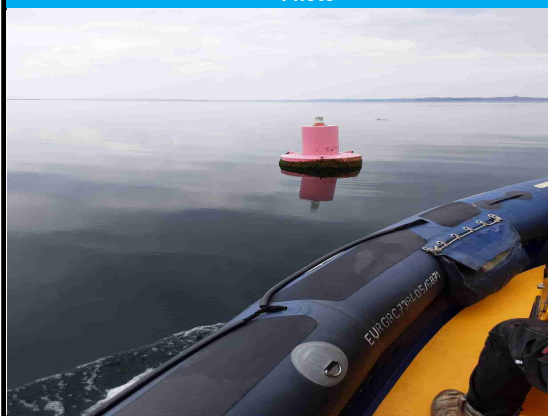
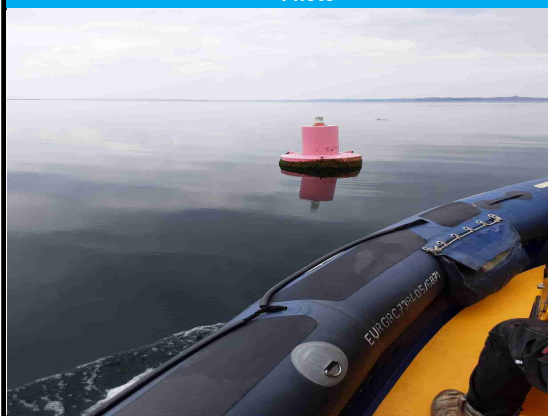
 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7375
LLA	Ards and North Down Borough Council						
Local AtoN	Craigyouuran						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Correct / Good Order						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							





 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7376
LLA							
Local AtoN		#VALUE!					
Irish Lights Inspector		Joseph Daly		Sanctioned LAtoN			
Date of Inspection		20/04/2021					
Question				Inspection notes			
AtoN Type		Permanent AtoN		possibly the original craigyouran beacon.			
Inspection Method		Physical					
Inspection		Defect found					
Defect Found:		Defect					
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome		Major Discrepancy					
Photo				Contact Details			
				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			





 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7377
LLA	Ards and North Down Borough Council						
Local AtoN	Kircubbin Approaches Buoy TIP REEF						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Defect found						
Defect Found:	Defect						
Working but not approved							
Light Defect							
Physical Defect	Topmark missing						
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy						
Photo				Contact Details			
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7378
LLA	Ards and North Down Borough Council						
Local AtoN	Kircubbin Approaches Buoy HOSKYNS SHOAL						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtoN			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	defect found						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect	Topmark missing						
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Minor Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							



 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7379
LLA	Ards and North Down Borough Council						
Local AtoN	Gransha Pointis already bound to job						
Irish Lights Inspector	Joseph Daly			Sanctioned			
Date of Inspection	20/04/2021			LAtON			
Question				Inspection notes			
AtoN Type	Permanent AtoN			possible remainder of stone tower on shore about 1 foot high.			
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy						
Photo				Contact Details			
				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


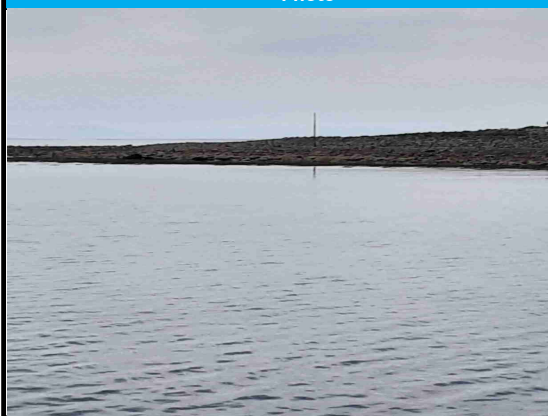
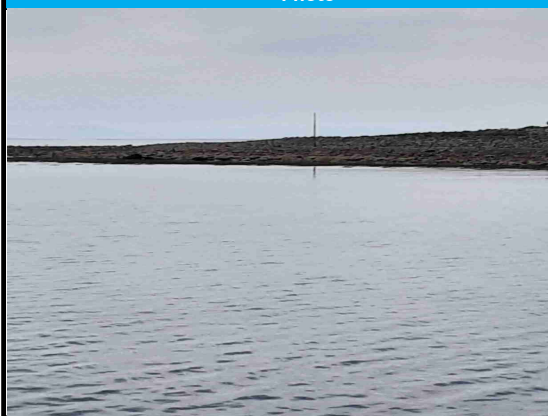
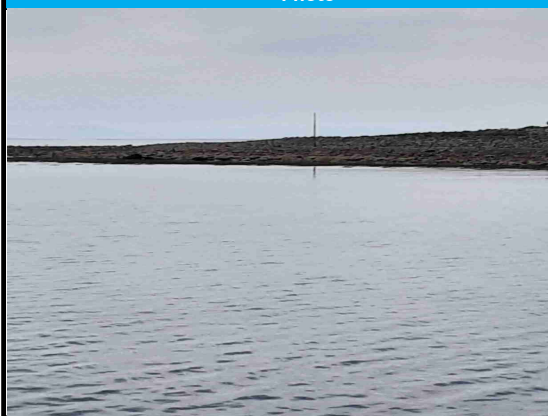
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LLA		Ards and North Down Borough Council																																	
Local AtoN		Kircubbin Approaches Buoy SAND ROCK PLADDY																																	
Irish Lights Inspector		Joseph Daly			Sanctioned																														
Date of Inspection		20/04/2021			LAtoN																														
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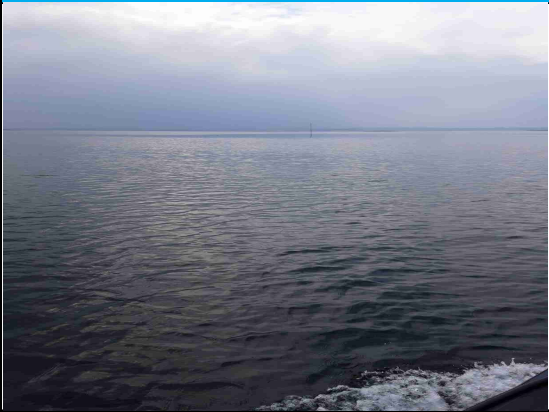
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LLA		Ards and North Down Borough Council																																	
Local AtoN		Kircubbin Approaches Buoy ROADS STARBOARD																																	
Irish Lights Inspector		Joseph Daly			Sanctioned																														
Date of Inspection		20/04/2021			LAtoN																														
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7382																														
LLA		Ards and North Down Borough Council																																			
Local AtoN		Kircubbin Approaches Buoy ROADS PORT																																			
Irish Lights Inspector		Joseph Daly			Sanctioned																																
Date of Inspection		20/04/2021			LAtON																																
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7383
LLA	Ards and North Down Borough Council						
Local AtoN	Kircubbin Speed Limit						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


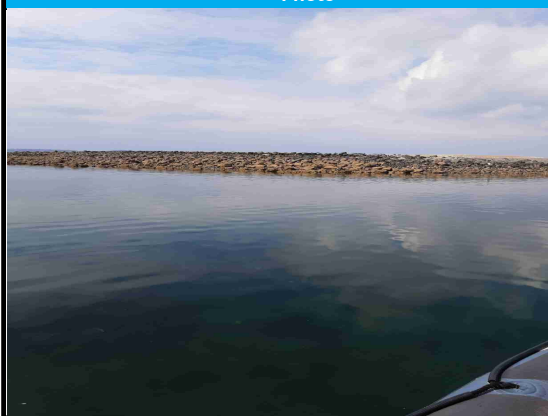
 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7384
LLA		Ards and North Down Borough Council					
Local AtoN		Kircubbin Pole 2					
Irish Lights Inspector		Joseph Daly			Sanctioned LAtoN		
Date of Inspection		20/04/2021					
Question		Inspection notes					
AtoN Type		Permanent AtoN					
Inspection Method		Physical					
Inspection		Correct / Good Order					
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome		As Required					
Photo		Contact Details					
		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie					



 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7385																												
LLA		Ards and North Down Borough Council																																	
Local AtoN		Kircubbin Pole																																	
Irish Lights Inspector		Joseph Daly			Sanctioned																														
Date of Inspection		20/04/2021			LAtON																														
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7386
LLA	Ards and North Down Borough Council						
Local AtoN	White Blank Pladdy						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Correct / Good Order						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							



 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2 style="margin: 0;">Local AtoN Inspection Report</h2>		GP ID	7387
LLA	Ards and North Down Borough Council				
Local AtoN	Dullisk Rock				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Not seen (not found/located)				
Defect Found:	Defect				
Working but not approved					
Light Defect					
Physical Defect					
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Major Discrepancy	Contact Details			
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 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2>Local AtoN Inspection Report</h2>		GP ID	7388
LLA	Ards and North Down Borough Council				
Local AtoN	Skart Rock Pladdy				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Defect found				
Defect Found:	Defect				
Working but not approved					
Light Defect					
Physical Defect	Renewal required				
AIS/Racon fault					
Positional Defect					
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7389
LLA	Ards and North Down Borough Council						
Local AtoN	Round Skart Rock						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
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Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							


 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7390
LLA	Ards and North Down Borough Council						
Local AtoN	Washer Rock						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
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Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
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Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							



 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7391																											
LLA	Ards and North Down Borough Council																															
Local AtoN	Michaels Rock																															
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON																														
Date of Inspection	20/04/2021																															
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 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7392
LLA	Ards and North Down Borough Council				
Local AtoN	Round Skart West				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Defect found				
Defect Found:	Defect				
Working but not approved					
Light Defect					
Physical Defect	Renewal required				
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Minor Discrepancy	Contact Details			
Photo		<p style="text-align: center;">Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie</p>			
					


 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7393																											
LLA	Ards and North Down Borough Council																															
Local AtoN	Newtown Spar																															
Irish Lights Inspector	Joseph Daly	Sanctioned LAtoN																														
Date of Inspection	20/04/2021																															
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7394
LLA	Ards and North Down Borough Council						
Local AtoN	Newtown Rock						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question		Inspection notes					
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
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Defect Found:							
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Maintenance required							
Other							
Inspection Outcome	Major Discrepancy						
Photo		Contact Details					
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7395
LLA	Ards and North Down Borough Council						
Local AtoN	Newtown Rock Spar						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN			named as spar. Database shows as buoy. Neither sighted.			
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy						
Photo				Contact Details			
				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			



 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7396
LLA	Ards and North Down Borough Council				
Local AtoN	Rig Pladdy				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Defect found				
Defect Found:	Defect				
Working but not approved					
Light Defect					
Physical Defect	Renewal required				
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Minor Discrepancy	Contact Details			
Photo		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
					





 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h2>Local AtoN Inspection Report</h2>		GP ID	7397																											
LLA	Ards and North Down Borough Council																															
Local AtoN	Downey's Rock																															
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON																														
Date of Inspection	20/04/2021																															
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7398
LLA	Ards and North Down Borough Council						
Local AtoN	Downeys Pladdy						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question		Inspection notes					
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy						
Photo		Contact Details					
		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie					


 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7399
LLA		Ards and North Down Borough Council					
Local AtoN		Mahee Point					
Irish Lights Inspector		Joseph Daly			Sanctioned LAtON		
Date of Inspection		20/04/2021					
Question		Inspection notes					
AtoN Type		Permanent AtoN					
Inspection Method		Physical					
Inspection		Correct / Good Order					
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome		As Required					
Photo		Contact Details					
		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie					


 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7400
LLA	Ards and North Down Borough Council						
Local AtoN	Bird Point is already bound to job						
Irish Lights Inspector	Joseph Daly			Sanctioned			
Date of Inspection	20/04/2021			LAtON			
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			



 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7401
LLA	Ards and North Down Borough Council						
Local AtoN	Water Quality Mark						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Correct / Good Order						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							


 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7402																											
LLA	Ards and North Down Borough Council																															
Local AtoN	Whaup Rock																															
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON																														
Date of Inspection	20/04/2021																															
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7403
LLA	Ards and North Down Borough Council						
Local AtoN	Gull Rock Pladdy						
Irish Lights Inspector	Joseph Daly			Sanctioned			
Date of Inspection	20/04/2021			LAtON			
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
 AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			


 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2>Local AtoN Inspection Report</h2>		GP ID	7404
LLA	Ards and North Down Borough Council				
Local AtoN	Gull Rock				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Not Seen (not found/located)				
Defect Found:					
Working but not approved					
Light Defect					
Physical Defect					
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Major Discrepancy		Contact Details Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie		
Photo					


 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7405
LLA	Ards and North Down Borough Council						
Local AtoN	Spar Near Lythe Rock						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN			named as spar but database shows as buoy. Neither sighted.			
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy						
Photo				Contact Details			
				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			



 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7406
LLA	Ards and North Down Borough Council				
Local AtoN	Calf Island				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Correct / Good Order				
Defect Found:					
Working but not approved					
Light Defect					
Physical Defect					
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	As Required	Contact Details			
Photo		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
					


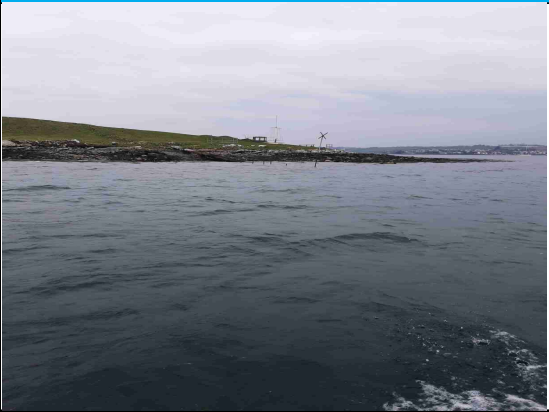
 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2>Local AtoN Inspection Report</h2>		GP ID	7407																												
LLA	Ards and North Down Borough Council																																
Local AtoN	Calf Island West																																
Irish Lights Inspector	Joseph Daly		Sanctioned LAtON																														
Date of Inspection	20/04/2021																																
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7408
LLA	Ards and North Down Borough Council						
Local AtoN	Rainey Island East						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Not Seen (not found/located)						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Major Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
<div style="border: 1px solid black; height: 150px; width: 100%;"></div>							



 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7409
LLA	Ards and North Down Borough Council				
Local AtoN	Rainey Island North				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Not Seen (not found/located)				
Defect Found:					
Working but not approved					
Light Defect					
Physical Defect					
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Major Discrepancy	Contact Details			
Photo		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			



 Commissioners of IRISH LIGHTS <small>Navigation and Maritime Services</small>		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7410
LLA	Ards and North Down Borough Council				
Local AtoN	Spar Near Dead Mans Rock				
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON			
Date of Inspection	20/04/2021				
Question		Inspection notes			
AtoN Type	Permanent AtoN				
Inspection Method	Physical				
Inspection	Not Seen (not found/located)				
Defect Found:					
Working but not approved					
Light Defect					
Physical Defect					
AIS/Racon fault					
Positional Defect					
Maintenance required					
Other					
Inspection Outcome	Major Discrepancy	Contact Details			
Photo		Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			





 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7411
LLA	Ards and North Down Borough Council						
Local AtoN	Dead Mans Rock						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Correct / Good Order						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							

 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7412
LLA	Ards and North Down Borough Council						
Local AtoN	Trasnagh NW						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN			day glow orange triangle not seen			
Inspection Method	Physical						
Inspection	Defect						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect	Topmark missing						
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	Minor Discrepancy			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							

 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7413																												
LLA		Ards and North Down Borough Council																																	
Local AtoN		Spar J West of Trasnagh																																	
Irish Lights Inspector		Joseph Daly		Sanctioned																															
Date of Inspection		20/04/2021		LAtON																															
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 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7414
LLA	Ards and North Down Borough Council						
Local AtoN	Strangford YC Speed Limit						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	20/04/2021						
Question				Inspection notes			
AtoN Type	Permanent AtoN						
Inspection Method	Physical						
Inspection	Correct / Good Order						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							

 Commissioners of IRISH LIGHTS		Navigation and Maritime Services		<h1>Local AtoN Inspection Report</h1>		GP ID	7415
LLA	Ards and North Down Borough Council						
Local AtoN	Minesto Test Site (North)						
Irish Lights Inspector	Joseph Daly			Sanctioned LAtON			
Date of Inspection	21/04/2021						
Question				Inspection notes			
AtoN Type	Temporary AtoN						
Inspection Method	Physical						
Inspection	Correct / Good Order						
Defect Found:							
Working but not approved							
Light Defect							
Physical Defect							
AIS/Racon fault							
Positional Defect							
Maintenance required							
Other							
Inspection Outcome	As Required			Contact Details			
Photo				Joseph Daly Tel: +353 1 271 5400 info@IrishLights.ie			
							

 Commissioners of IRISH LIGHTS Navigation and Maritime Services		<h2 style="text-align: center;">Local AtoN Inspection Report</h2>		GP ID	7418																												
LLA	Ards and North Down Borough Council																																
Local AtoN	Scrabo Tower Aero																																
Irish Lights Inspector	Joseph Daly	Sanctioned LAtON																															
Date of Inspection	21/04/2021																																
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STRANGFORD LOUGH

Project number: 60705982

Appendix D Risk Assessments

Zone 1 – Strangford North

Hazard Identification

HAZARDS	Possible	Remarks
Natural	Safe Minimum Depth	Yes Circa 2m Drying out in north
	Proximity of Danger (Nautical Miles)	No
	Tide, Wind, wave and current effect	Yes
	Ice Conditions	Negligible No issues for passage
	Minimum Visibility	Yes Unlit AtoN
	Low Sun Issues	No
	Background Lighting	No
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No
Economic	Earthquake and Tsunami	No Not a seismic area of concern
	Legal Action Problems	Unknown
Technical	Insufficient AtoN funding issues	Unknown Risk assessment
	Shipborne Navaid Failure	Negligible
	Quality & Validity of Chartered Information	No
	Loss of Vessel control	Unknown RNLI or other records
	Loss of Communications	Unknown
	Loss of Connectivity	Unknown
	Cyber Interference	No
	AtoN failure	No
	Loss of PNT	No
	Human	Substandard Ships
Crew competency		Yes Small boat owners unlikely to have RYA training
Fatigue		No Potential for crews returning to lough from long cruise, unlikely for normal day to day activities.
Safety Culture		Yes
Influence of alcohol/drugs		No
Availability and competency of Vessel Traffic Services		No
Other AtoN provider competency		No
Availability & competency of pilotage		No No pilots on Lough
Piracy/Terrorism		No
Political Issues		No
Culture/Language Issues		No Primarily local boat owners.
Crew medical issues		No
Crew distractions		No
Operational	Impact of smaller vehicles	Yes Mixture of boating types.
	Fishing Activities	Yes Small lobster boats, small fishing boats, occasional commercial fishing – scallops?
	Seasonal Activities	Yes Regattas, racing.
	Poor passage planning	Possible Individuals responsibility, unknown
	Inadequate routing guidance	Yes None available

HAZARDS	Possible	Remarks
Poor route monitoring	Yes	None available
Poor promulgation of Maritime Safety Information (MSI)	Unknown	
Poor response to marking new danger	Unknown	
Maritime Space	The existence of wrecks and new dangers	Yes 1 no wreck
	Crowded waterway issues	No
	Existence of restricted areas (eg ammunition, fish farms)	Yes Aquiculture NE Paddy's point.
Waterway Complexity	Sharp Bends	No
	Narrow fairway	Yes Access to N Sketrick Island and Down Cruising Club narrow channel.
	Manoeuvring space	No
	Traffic Considerations	No No regular commercial traffic
	Limited depth of water	Yes North of area dries out
	New or existing obstructions	No
	Mobile seabed	No No issues reported
	Channel siltation	No No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Low risk
	Overtaking	No
	Bend	No
	Crossing	No
	Merging	No
Groundings	Grounding on rock	Possible in shallows
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	Possible
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	Fish farm in NE Paddy's Point. On boundary of 0m CD.
	Aids to navigation	None
Foundering	Capsizing	Potential in dingy training / races Newtownards Sailing Club
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Zone 2 – South Island – Tip Reef

Hazard Identification

HAZARDS	Possible	Remarks
Natural	Safe Minimum Depth	Yes Circa 2m for most vessels, channels between pladdies vary in depth between 4m (min) – 22m (Max).
	Proximity of Danger (Nautical Miles)	No
	Tide, Wind, wave and current effect	Yes Flooding and ebb tide add do not run true, circa 1.5knto west, unknown within zone.
	Ice Conditions	Negligible No issues for passage
	Minimum Visibility	Yes Unlit AtoN
	Low Sun Issues	No None recorded
	Background Lighting	No No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No
Economic	Earthquake and Tsunami	No Not a seismic area of concern
	Legal Action Problems	Unknown
Technical	Insufficient AtoN funding issues	Unknown Risk assessment
	Shipborne Navaid Failure	Negligible
	Quality & Validity of Chartered Information	No Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown RNLI or other records
	Loss of Communications	Unknown
	Loss of Connectivity	Unknown
	Cyber Interference	No
	AtoN failure	No Majority of AtoN'S comprise Perches, poles and Posts - Downeys Rock (Pe West end) , Sheelahs Island (Beacon, east end), Newton Rock, (Pe west end), Whitebait Pladdy (Po centre), Round Scart (Pe east side), Dullisk Rock (Po N end), Michaels Rock (Pe n end), Washer Rock (Pe), Slave Rock (Po n end), Rig Pladdy (Pe).
	Loss of PNT	No
	Substandard Ships	Yes Individuals responsible for boat condition
Human	Crew competency	Yes Small boat owners unlikely to have RYA training
	Fatigue	No Potential for crews returning to lough from long cruise, unlikely for normal day to day activities.
	Safety Culture	Yes
	Influence of alcohol/drugs	No
	Availability and competency of Vessel Traffic Services	No
	Other AtoN provider competency	No
	Availability & competency of pilotage	No No pilots on Lough
	Piracy/Terrorism	No
	Political Issues	No
	Culture/Language Issues	No Primarily local boat owners.
Crew medical issues	No	

HAZARDS	Possible	Remarks
	No	
	Yes	Mixture of boating types.
	Yes	Small lobster boats, small fishing boats, occasional commercial fishing – scallops?
	Yes	Regattas, racing.
Operational	Possible	Individuals responsibility, unknown. Passage through pladdies between east and west routes.
	Yes	None available
	Yes	None available
	Unknown	
	Unknown	
	No	None recorded.
Maritime Space	No	
	Yes	Fish farms in following areas:
	Yes	Routes weave between rocks and pladdies.
	Yes	Bird Island Passage circa xxxm at narrowest point
	No	No issues for vessels under power.
Waterway Complexity	No	No regular commercial traffic
	Yes	Northern extent – South Island to Long Skart Rock / Dougherty Rock <2m at LAT.
	No	
	No	No issues reported
	No	No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Low risk
	Overtaking	No
	Bend	No
	Crossing	Low risk
	Merging	No
Groundings	Grounding on rock	Possible
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	No
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	Fish farms: <ul style="list-style-type: none"> • W Dougherty Rock / Eel Pladdy, • E Long Skart Rock • Between West Rock and Slave Rock
Foundering	Aids to navigation	None
	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
1. Collisions	Head-On	Human error	Damage to vessel	Mainly only local users, Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	1	2	4	Appropriate AToN
		Tide, wind, wave and current effect						
		Poor Visibility						
		Limited channel width						
Crossing	Human error	Damage to vessel	Mainly only local users, Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	1	2	4	Appropriate AToN	
	Tide, wind, wave and current effect							
	Poor Visibility							
Limited channel width								
2. Groundings	Grounding on rock	Navigating in shallow waters, unit / missing AToNs	Damage to vessel	Mainly only local users, Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	2	4	Appropriate AToN
		Navigating in shallow waters, unit / missing AToNs						
		Navigating in shallow waters, unit / missing fish farms						
3. Allisions	Fish farms	Poor visibility	Damage to vessel	Mainly only local users, Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	2	4	Appropriate AToN
		Human error						
		Poor control of vessel						
4. Foundering	Sinking	Human error	Damage to vessel	Mainly only local users, Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	2	4	Appropriate AToN
		Poor control of vessel						
		Structural Failure of Substandard vessels						
5. Structural Failure	Vessels	Significant damage/loss of vessels	Individuals responsible for boat condition	1	3	3	Appropriate AToN	
		Structural Failure of Substandard vessels						

Zone 3 – Main Passage West

Hazard Identification

HAZARDS	Possible	Remarks
Natural	Safe Minimum Depth	Yes Channel has between 10m – 40m depth at CD.
	Proximity of Danger (Nautical Miles)	No
	Tide, Wind, wave and current effect	Yes Flooding and ebb tide add do not run true, circa 1.5kn.
	Ice Conditions	Negligible No issues for passage
	Minimum Visibility	Yes Unlit AtoNs or lateral marks, 4 point of interest markers in southern extent of zone: <ul style="list-style-type: none"> • Inishanier Island, • Long Sheelagh • Craigyouran • Tip Reef
	Low Sun Issues	No None recorded
	Background Lighting	No No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No
Economic	Earthquake and Tsunami	No Not a seismic area of concern
	Legal Action Problems	Unknown
Technical	Insufficient AtoN funding issues	Unknown Risk assessment
	Shipborne Navaid Failure	Negligible Boatowner responsibility.
	Quality & Validity of Chartered Information	No Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown RNLI or other records
	Loss of Communications	Unknown
	Loss of Connectivity	Unknown
	Cyber Interference	No
	AtoN failure	No Majority of AtoN'S comprise Perches, poles and Posts – on pladdies skirting channel.
	Loss of PNT	No
	Substandard Ships	Yes Individuals responsible for boat condition
Human	Crew competency	Yes Small boat owners unlikely to have RYA training
	Fatigue	Yes Potential for crews returning to upper lough from long cruise, unlikely for normal day to day activities.
	Safety Culture	Yes
	Influence of alcohol/drugs	No
	Availability and competency of Vessel Traffic Services	No
	Other AtoN provider competency	No
	Availability & competency of pilotage	No No pilots on Lough
	Piracy/Terrorism	No
	Political Issues	No
Culture/Language Issues	No Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.	

HAZARDS	Possible	Remarks
Crew medical issues	No	
Crew distractions	No	
Operational	Impact of smaller vehicles	Yes Mixture of boating types. No recorded issues.
	Fishing Activities	Yes Small lobster boats, small fishing boats, occasional commercial fishing.
	Seasonal Activities	Yes Regattas, racing. Note on Admiralty chart re racing buoys within 2 mile radius of Trasnagh Island 54° 29' 0"N 5° 37' 7"W. Orange Spar, May to September.
	Poor passage planning	Possible Individuals responsibility, unknown. Passage through pladdies between east and west routes.
	Inadequate routing guidance	Yes None available
	Poor route monitoring	Yes None available
	Poor promulgation of Maritime Safety Information (MSI)	Unknown
Poor response to marking new danger	Unknown	
Maritime Space	The existence of wrecks and new dangers	Yes 10 wrecks recorded
	Crowded waterway issues	No
	Existence of restricted areas (eg ammunition, fish farms)	Yes Fish farms in following areas: <ul style="list-style-type: none"> • South Rock / Sand Rock / Slave rock. • Woman's rock – West Bucky Rock. • E of Long Skart Rock. • W Dougherty Rock – Eel Rock – Eel Pladdy.
Waterway Complexity	Sharp Bends	No No issues with main channel.
	Narrow fairway	No No issues
	Manoeuvring space	No No issues for vessels under power.
	Traffic Considerations	No No regular commercial traffic
	Limited depth of water	Yes Only when moving outside of main channel to adjacent zones 1,2 and 5.
	New or existing obstructions	No None
	Mobile seabed	No No issues reported
	Channel siltation	No No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
	Head-On	Low risk
	Overtaking	Common
Collisions	Bend	No
	Crossing	Occasional
	Merging	At sailing clubs
Groundings	Grounding on rock	Possible at channel margins
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	10 wrecks recorded
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	N/A
	Aids to navigation	Possible
Foundering	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
1. Collisions	Head-On	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	3	4	12	Appropriate AToN
		Tide, wind, wave and current effect						
		Poor Visibility						
	Overtaking	Limited channel width / congestion of waterway	4	2	8			
		Human error						
		Tide, wind, wave and current effect						
	Crossing	Poor Visibility	3	2	6			
		Limited channel width / congestion of waterway						
		Human error						
	Merging	Human error	4	2	8			
Tide, wind, wave and current effect								
Poor Visibility								
2. Groundings	Grounding on rock	Limited channel width / congestion of waterway	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	4	8	Appropriate AToN
	Grounding on soft ground	Missing / unlit rocks						
	Grounding on wrecks	pladdies						

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
3. Allisions	Aids to navigation	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	Appropriate AToN
		Tide, wind, wave and current effect						
		Poor Visibility						
		Limited channel width / congestion of waterway						
		Human error			2	3	6	
		Poor control of vessel						
4. Foundering	Sinking	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	1	3	3	Appropriate AToN
		Poor control of vessel						
		Missing AToN / unlit rocks pladdies						
		Tide, wind, wave and current effect						
5. Structural Failure	Structural Failure of Vessels	Substandard vessels	Significant damage/loss of vessels	Individuals responsible for boat condition	1	3	3	

Zone 4 – Main Passage East

Hazard Identification

HAZARDS	Possible	Remarks
Natural	Safe Minimum Depth	Yes Channel has between 8m – 24m depth at CD. Excluding shoals.
	Proximity of Danger (Nautical Miles)	No
	Tide, Wind, wave and current effect	Yes No information.
	Ice Conditions	Negligible No issues for passage
	Minimum Visibility	Yes Unlit AtoNs on pladdies to west of channel. Tip reef N Cardinal at approach to channel. Recently installed lateral marks for approach to Kircubbin, <ul style="list-style-type: none"> IALA port marks Hoskyns shoal and sw of Monaghan bank. IALA starboard marks Sand rock pladdy and sw of Monaghan bank
	Low Sun Issues	No None recorded
	Background Lighting	No No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No
	Earthquake and Tsunami	No Not a seismic area of concern
	Economic	Legal Action Problems
Insufficient AtoN funding issues		Unknown Risk assessment
Technical	Shipborne Navaid Failure	Negligible Boatowner responsibility.
	Quality & Validity of Chartered Information	No Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown RNLI or other records
	Loss of Communications	Unknown
	Loss of Connectivity	Unknown
	Cyber Interference	No
	AtoN failure	No Majority of AtoN'S comprise Perches, poles and Posts – on pladdies skirting channel.
	Loss of PNT	No
	Substandard Ships	Yes Individuals responsible for boat condition
	Human	Crew competency
Fatigue		Yes Potential for crews returning to upper lough from long cruise, unlikely for normal day to day activities.
Safety Culture		Yes
Influence of alcohol/drugs		No
Availability and competency of Vessel Traffic Services		No
Other AtoN provider competency		No
Availability & competency of pilotage		No No pilots on Lough
Piracy/Terrorism		No
Political Issues	No	

HAZARDS	Possible	Remarks	
Culture/Language Issues	No	Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.	
Crew medical issues	No		
Crew distractions	No		
Operational	Impact of smaller vehicles	Yes	Mixture of boating types. No recorded issues.
	Fishing Activities	Yes	Small lobster boats, small fishing boats, occasional commercial fishing.
	Seasonal Activities	Yes	Regattas, racing. Note on Admiralty chart racing buoys within 2mile radius of Trasnagh Island 54° 29' 0"N 5° 37' 7"W. Orange Spar, May to September.
	Poor passage planning	Possible	Individuals responsibility, unknown. Passage through pladdies between east and west routes.
	Inadequate routing guidance	Yes	None available
	Poor route monitoring	Yes	None available
Poor promulgation of Maritime Safety Information (MSI)	Unknown		
Poor response to marking new danger	Unknown		
Maritime Space	The existence of wrecks and new dangers	Yes	10 wrecks recorded
	Crowded waterway issues	No	
	Existence of restricted areas (eg ammunition, fish farms)	Yes	Fish farms in following areas: <ul style="list-style-type: none"> • South Rock / Sand Rock / Slave rock. • Woman's rock – West Bucky Rock. • E of Long Skart Rock. • W Dougherty Rock – Eel Rock – Eel Pladdy.
Waterway Complexity	Sharp Bends	No	No issues with main channel.
	Narrow fairway	No	No issues
	Manoeuvring space	No	No issues for vessels under power.
	Traffic Considerations	No	No regular commercial traffic
	Limited depth of water	Yes	Only when moving outside of main channel to adjacent zones 1,2 and 5.
	New or existing obstructions	No	None
	Mobile seabed	No	No issues reported
	Channel siltation	No	No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Low risk
	Overtaking	Possible
	Bend	Change in route red can FL 5 5s E of Hare Island
	Crossing	Possible
	Merging	Possible
Groundings	Grounding on rock	Possible, Hoskyns Shoal, Slave Rock Pladdies, and periphery of channel to west.
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	None recorded
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	N/A
	Aids to navigation	Possible
Foundering	Capsizing	Common in dingy races
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
	Head-On	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	3	4	12	
		Tide, wind, wave and current effect						
		Poor Visibility						
		Limited channel width / congestion of waterway						
	Overtaking	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	4	2	8	
		Tide, wind, wave and current effect						
		Poor Visibility						
		Limited channel width / congestion of waterway						
1. Collisions	Crossing	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	3	2	6	Appropriate ATon
		Tide, wind, wave and current effect						
		Poor Visibility						
		Limited channel width / congestion of waterway						
	Merging	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	4	2	8	
		Tide, wind, wave and current effect						
		Poor Visibility						
		Limited channel width / congestion of waterway						
	Bend	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	4	2	8	
		Tide, wind, wave and current effect						
		Poor Visibility						

Zone 5 – Trasnagh – Long Sheelah

Hazard Identification

HAZARDS	Possible	Remarks
Natural	Safe Minimum Depth	Yes Channel has between 0m – 38 depth at CD. General depth 4 – 17. Excluding shoals.
	Proximity of Danger (Nautical Miles)	No
	Tide, Wind, wave and current effect	Yes No information. Currents in this area vary from 1kn – 2kn on flood and ebb tides.
	Ice Conditions	Negligible No issues for passage
	Minimum Visibility	Yes Unlit AtoNs on pladdies. Braddock Rock (3 Po), Rock w of Parton Rock (Po), Dead Mans Rock (Pe), Sand Rock Pladdy (Po), Hadd (PO), Janes Rock (Po), Long Sheelah (Po & Pe), Verde Rocks (Pe), Brown Rock (Po) Brownrock Pladdy (Po). E Cardinal at eastern end of Inishanier Rock (Dead Mans Rock) at NE end of zone. E Cardinal at eastern end of Long Sheelah at eastern edge of Zone.
	Low Sun Issues	No None recorded
	Background Lighting	No No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No
	Earthquake and Tsunami	No Not a seismic area of concern
	Economic	Legal Action Problems
Insufficient AtoN funding issues		Unknown Risk assessment
Technical	Shipborne Navaid Failure	Negligible Boatowner responsibility.
	Quality & Validity of Chartered Information	No Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown RNLI or other records
	Loss of Communications	Unknown
	Loss of Connectivity	Unknown
	Cyber Interference	No
	AtoN failure	No Majority of AtoN'S comprise Perches, poles and Posts – on pladdies. See above.
	Loss of PNT	No
	Substandard Ships	Yes Individuals responsible for boat condition
	Human	Crew competency
Fatigue		Yes Potential for crews returning to upper lough from long cruise, unlikely for normal day to day activities.
Safety Culture		Yes
Influence of alcohol/drugs		No
Availability and competency of Vessel Traffic Services		No
Other AtoN provider competency		No
Availability & competency of pilotage		No No pilots on Lough

HAZARDS	Possible	Remarks	
Piracy/Terrorism	No		
Political Issues	No		
Culture/Language Issues	No	Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.	
Crew medical issues	No		
Crew distractions	No		
Operational	Impact of smaller vehicles	Yes	Mixture of boating types. No recorded issues.
	Fishing Activities	Yes	Small lobster boats, small fishing boats. Fish farm between Dunsy Island and Sandrock Pladdy.
	Seasonal Activities	Yes	Regattas, racing to North and East of zone. Note on Admiralty char re racing buoys within 2mile radius of Trasnagh Island 54° 29' 0"N 5° 37' 7"W. Orange Spar, May to September.
	Poor passage planning	Possible	Individuals responsibility, unknown. Passage generally south between Islandmore and shore is well known locally.
	Inadequate routing guidance	Yes	None available
	Poor route monitoring	Yes	None available
	Poor promulgation of Maritime Safety Information (MSI)	Unknown	
Poor response to marking new danger	Unknown		
Maritime Space	The existence of wrecks and new dangers	Yes	Wreck Alasdair W of Islandmore in circa 23m. Three wrecks incl Alasdair recorded.
	Crowded waterway issues	Yes	Considerable moorings along Ringhaddy sound.
	Existence of restricted areas (eg ammunition, fish farms)	Yes	Fish farms in following areas: <ul style="list-style-type: none"> • South Rock / Sand Rock / Slave rock. • Woman's rock – West Bucky Rock. • E of Long Skart Rock. • W Dougherty Rock – Eel Rock – Eel Pladdy.
Waterway Complexity	Sharp Bends	Yes	No issues with main channel.
	Narrow fairway	Yes	Narrow due to anchorages within Ringhaddy sound.
	Manoeuvring space	No	No issues for vessels under power.
	Traffic Considerations	No	No regular commercial traffic
	Limited depth of water	Yes	Only when moving outside of main channel to adjacent zones 1,2 and 5.
	New or existing obstructions	No	None
	Mobile seabed	No	No issues reported
Channel siltation	No	No defined channels requiring dredging	

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Possible
	Overtaking	Probable
	Bend	Se of Islandmore
	Crossing	Possible
	Merging	At Sailing clubs,
Groundings	Grounding on rock	Possible, off channel.
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	Wreck Alasdair W of Islandmore in circa 23m. Three wrecks incl Alasdair recorded.
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	Fish farm between Dunsy Island and Sandrock Pladdy.
	Aids to navigation	Possible
Foundering	Capsizing	Common in dingy races
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
1. Collisions	Head-On	Human error			3	4	12	
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
	Overtaking	Human error			4	2	8	
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
	Crossing	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	3	2	6	Appropriate ATon
		Tide, wind, wave and current effect						
Poor Visibility								
Congestion of waterway								
Merging	Human error			4	2	8		
	Tide, wind, wave and current effect							
	Poor Visibility							
	Congestion of waterway							
Bend	Human error			2	2	4		
	Tide, wind, wave and current effect							
	Poor Visibility							
	Congestion of waterway							
2. Groundings	Grounding on soft ground	Missing / unlit rocks	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	4	8	Appropriate ATon
		pladdies						
	Grounding on wrecks				2	4	8	

Zone 6 – Trasnagh – Kircubbin Bay – Ringburr Point

Hazard Identification

HAZARDS	Possible	Remarks
Natural	Safe Minimum Depth	Yes Channel has between 0m – 7m depth at CD in east. General depth 2 – 8. Excluding shoals. Comprises extensive rock, mud and drying pladdies.
	Proximity of Danger (Nautical Miles)	No
	Tide, Wind, wave and current effect	Yes No information. Currents in this upper part of the lough vary from 1kn – 2kn on flood and ebb tides.
	Ice Conditions	Negligible No issues for passage
	Minimum Visibility	Yes
	Low Sun Issues	No None recorded
	Background Lighting	No No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No
Economic	Earthquake and Tsunami	No Not a seismic area of concern
	Legal Action Problems	Unknown
Technical	Insufficient AtoN funding issues	Unknown Risk assessment
	Shipborne Navaid Failure	Negligible Boatowner responsibility.
	Quality & Validity of Chartered Information	No Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown RNLI or other records
	Loss of Communications	Unknown
	Loss of Connectivity	Unknown
	Cyber Interference	No
	AtoN failure	No Single ATON in area, Perch – Marker on Gransha Point.
	Loss of PNT	No
	Substandard Ships	Yes Individuals responsible for boat condition
Human	Crew competency	Yes Small boat owners unlikely to have RYA training
	Fatigue	No
	Safety Culture	Yes
	Influence of alcohol/drugs	No
	Availability and competency of Vessel Traffic Services	No Recommended track on AC 5612, Note 'C' – Gransha Point 185' to Kircubbin Roads.
	Other AtoN provider competency	No
	Availability & competency of pilotage	No No pilots on Lough
	Piracy/Terrorism	No
	Political Issues	No
	Culture/Language Issues	No Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.
	Crew medical issues	No
	Crew distractions	No

HAZARDS	Possible	Remarks
	Yes	Mixture of boating types. No recorded issues.
	Yes	Small lobster boats, small fishing boats. Fish farm between Dunsy Island and Sandrock Pladdy.
	Yes	
Operational	Possible	Individuals responsibility, unknown. Not suitable for deep keeled vessels.
	Yes	None available
	Yes	None available
	Unknown	
	Unknown	
	Yes	1 wreck recorded
	No	Not suitable for sailing vessels.
Maritime Space	Yes	Fish farms in following areas: <ul style="list-style-type: none"> • South Rock / Sand Rock / Slave rock. • Woman's rock – West Bucky Rock. • E of Long Skart Rock. • W Dougherty Rock – Eel Rock – Eel Pladdy.
	No	
	Yes	Narrow due to rocks, pladdies, islands.
	No	No issues for vessels under power.
	No	No regular commercial traffic
Waterway Complexity	Yes	Throughout zone.
	No	None
	No	No issues reported
	No	No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Low risk, zone encapsulates pladdies, shoals and islands on east shoreline.
	Overtaking	Possible approach to Sailing Club
	Bend	No
	Crossing	Possible
	Merging	Possible
Groundings	Grounding on rock	Possible in shallows along shoreline
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	1 wreck recorded
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	N/A
	Aids to navigation	Possible
Foundering	Capsizing	Common in dingy races
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
1. Collisions	Head-On	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	2	4	Appropriate ATon
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
	Overtaking	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	2	4	Appropriate ATon
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
	Crossing	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	2	4	Appropriate ATon
		Tide, wind, wave and current effect						
Poor Visibility								
Congestion of waterway								
Merging	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	2	4	Appropriate ATon	
	Tide, wind, wave and current effect							
	Poor Visibility							
	Congestion of waterway							
2. Groundings	Grounding on soft ground	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	4	8	Appropriate ATon
		Missing / unlit rocks						
		pladdies						
	Grounding on wrecks	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	4	8	Appropriate ATon
		Tide, wind, wave and current effect						
		Poor Visibility						
3. Allisions	Aids to navigation	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	3	6	Appropriate ATon
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						

Zone 7 – Long Rock – Ringdufferin Castle

Hazard Identification

HAZARDS	Possible	Remarks
	Yes	Channel Depths vary, 0m – <2m – and drying near shore. General depths 5 - 17m Deeps of 26, 27 & 38m.
	No	
	Yes	No information. Currents in this upper part of the lough vary from 1kn – 2kn on flood and ebb tides.
Natural	Negligible	No issues for passage
	Yes	
	No	None recorded
	No	No issues
	No	
	No	Not a seismic area of concern
	Unknown	
Economic	Unknown	Risk assessment
	Negligible	Boatowner responsibility.
Technical	No	Admiralty chart 5621 / online live chart data fishing and
	Unknown	RNLI or other records
	Unknown	
	Unknown	
	No	
	No	Simmy Island (Perch), Limestone Rock (Pole), Limestone Rock (Lighted beacon tower QR 3M on east point). Limestone Pladdy (Pole), Skelk Rock (Perch)
	No	
	Yes	Individuals responsible for boat condition
	Yes	Small boat owners unlikely to have RYA training
	Yes	Potential for crews returning to upper lough from long cruise, unlikely for normal day to day activities.
Human	Yes	
	No	
	No	Recommended track on AC 5612, Note 'C' – Gransha Point 185° to Kircubbin Roads.
	No	
	No	No pilots on Lough
	No	
	No	
	No	Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.
	No	
	No	

HAZARDS	Possible	Remarks
Crew distractions	No	
Impact of smaller vehicles	Yes	Mixture of boating types. No recorded issues.
Fishing Activities	Yes	Small lobster boats, small fishing boats. Fish farm between Dunsy Island and Sandrock Pladdy.
Seasonal Activities	Yes	
Operational		
Poor passage planning	Possible	Individuals responsibility, unknown. Not suitable for deep keeled vessels.
Inadequate routing guidance	Yes	None available
Poor route monitoring	Yes	None available
Poor promulgation of Maritime Safety Information (MSI)	Unknown	
Poor response to marking new danger	Unknown	
Maritime Space		
The existence of wrecks and new dangers	No	No wrecks recorded
Crowded waterway issues	No	Not suitable for sailing vessels.
Existence of restricted areas (eg ammunition, fish farms)	Yes	Fish farms in following areas: <ul style="list-style-type: none"> • South Rock / Sand Rock / Slave rock. • Woman's rock – West Bucky Rock. • E of Long Skart Rock. • W Dougherty Rock – Eel Rock – Eel Pladdy.
Waterway Complexity		
Sharp Bends	No	
Narrow fairway	Yes	Narrow due to rocks, pladdies, islands. Approach to East Down Yacht Club accessed by narrow and shallow route.
Manoeuvring space	No	No issues for vessels under power.
Traffic Considerations	No	No regular commercial traffic
Limited depth of water	Yes	Throughout zone.
New or existing obstructions	No	None
Mobile seabed	No	No issues reported
Channel siltation	No	No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Low risk, approach to e Down YC.
	Overtaking	Probable
	Bend	Channel E of Selk Rock
	Crossing	Possible Holm Bay
	Merging	At Sailing clubs,
Groundings	Grounding on rock	Possible on approach to ED YC
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	N/A
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	Possible
	Aids to navigation	Possible
Foundering	Capsizing	Common in dingy races
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options	
1. Collisions	Head-On	Human error			3	4	12		
		Tide, wind, wave and current effect							
		Poor Visibility							
		Congestion of waterway							
	Overtaking	Human error			4	2	8		
		Tide, wind, wave and current effect							
		Poor Visibility							
		Congestion of waterway							
	Crossing	Human error		Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	3	2	6	Appropriate ATon
		Tide, wind, wave and current effect							
		Poor Visibility							
		Congestion of waterway							
Merging	Human error				4	2	8		
	Tide, wind, wave and current effect								
	Poor Visibility								
	Congestion of waterway								
Bend	Human error				2	2	4		
	Tide, wind, wave and current effect								
	Poor Visibility								
	Congestion of waterway								
2. Groundings	Grounding on rock	Missing / unlift rocks pladdies	Damage to vessel / sinking stranding	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	4	8		
	Grounding on soft ground								
	Grounding on slip								

Zone 8 – Main Channel Long Sheelagh – Audley’s Point

Hazard Identification

HAZARDS	Possible	Remarks
Natural	Safe Minimum Depth	Yes Area comprises the main channel from Audley’s Point / Ballyhenry to Long Sheelagh. Depths vary, 0m – <49m – and drying near shore. General depths 11 - 22m Deeps of 38, 48 – 49 experienced.
	Proximity of Danger (Nautical Miles)	No
	Tide, Wind, wave and current effect	Yes Tidal streams 1knot ebb tide, 2knots on flood tide in vicinity of Chapel Island roads. Refer to chart AC2156.
	Ice Conditions	Negligible No issues for passage
	Minimum Visibility	Yes
	Low Sun Issues	No None recorded
	Background Lighting	No No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No
Economic	Earthquake and Tsunami	No Not a seismic area of concern
	Legal Action Problems	Unknown
Technical	Insufficient AtoN funding issues	Unknown Risk assessment
	Shipborne Navaid Failure	Negligible Boatowner responsibility.
	Quality & Validity of Chartered Information	No Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown RNLI or other records
	Loss of Communications	Unknown
	Loss of Connectivity	Unknown
	Cyber Interference	No
	AtoN failure	No Ballyhenry island Lighted beacon QG 3M.
	Loss of PNT	No
	Human	Substandard Ships
Crew competency		Yes Small boat owners unlikely to have RYA training
Fatigue		Yes Potential for crews returning to upper lough from long cruise, unlikely for normal day to day activities.
Safety Culture		Yes
Influence of alcohol/drugs		No
Availability and competency of Vessel Traffic Services		No Recommended tracks and clearing lines AC 2156: E – Perch on long Sheelagh 355.5° F – Portaferry Windmill open on Chapel Island clears Skate Rock. Town Rock beacon 271° for Killyleagh.
Other AtoN provider competency		No
Availability & competency of pilotage		No No pilots on Lough
Piracy/Terrorism		No
Political Issues		No
Culture/Language Issues	No Primarily local boat owners. Potential for visiting boats from abroad, no issues	

HAZARDS	Possible	Remarks
		recorded in respect of language problems.
	No	
	No	
	Yes	Mixture of boating types. No recorded issues.
	Yes	Small lobster boats, small fishing boats.
	Yes	
Operational	Possible	Individuals responsibility, unknown. Not suitable for deep keeled vessels.
	Yes	None available
	Yes	None available
	Unknown	
	Unknown	
Maritime Space	Yes	2no, 1 no Ballywhite Bay, 1 other.
	No	
	Yes	Aquiculture SE Skate Rock boundary with Zone 9.
Waterway Complexity	No	
	No	
	No	
	No	No regular commercial traffic
	No	
	No	None
	No	No issues reported
	No	No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Low risk wide channel
	Overtaking	Likely
	Bend	Channel turns SE Ballyhenry Point
	Crossing	Possible
	Merging	Possible
Groundings	Grounding on rock	Unlikely
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	N/A
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	N/A
	Aids to navigation	Possible
Foundering	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
	Head-On	Human error			3	4	12	
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
	Overtaking	Human error			4	2	8	
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
1. Collisions	Crossing	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	3	2	6	Appropriate AToN
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
	Merging	Human error			4	2	8	
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
	Bend	Human error			2	2	4	
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
2. Groundings	Grounding on rock				1	4	4	Appropriate AToN

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
	Grounding on soft ground	Missing / unlit rocks pladdies	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	4	8	
		Human error Tide, wind, wave and current effect						
3. Allisions	Aids to navigation	Poor Visibility Congestion of waterway	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	Appropriate AToN
		Human error Poor control of vessel						
4. Foundering	Sinking	Human error Poor control of vessel Missing AToN / unlit rocks pladdies Tide, wind, wave and current effect	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	Appropriate AToN
5. Structural Failure	Structural Failure of Vessels	Substandard vessels	Significant damage/loss of vessels	Individuals responsible for boat condition	1	3	3	

Zone 9 – Quoile

Hazard Identification

HAZARDS	Possible	Remarks
Natural	Safe Minimum Depth	Yes Admiralty Chart No 2156, Area comprises the main channel from Audley's Point to Killyleagh and Quoile Barrage. Depths vary, 0m – <20m – and drying south and west shores. General depths 7 - 17m Deeps of 22, 26 – 29 experienced.
	Proximity of Danger (Nautical Miles)	No
	Tide, Wind, wave and current effect	Yes Tidal streams 1knot ebb tide, 2knots on flood tide in vicinity of Chapel Island roads. Refer to chart AC2156.
	Ice Conditions	Negligible No issues for passage
	Minimum Visibility	Yes
	Low Sun Issues	No None recorded
	Background Lighting	No No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No
Economic	Earthquake and Tsunami	No Not a seismic area of concern
	Legal Action Problems	Unknown
Technical	Insufficient AtoN funding issues	Unknown Risk assessment
	Shipborne Navaid Failure	Negligible Boatowner responsibility.
	Quality & Validity of Chartered Information	No Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown RNLI or other records
	Loss of Communications	Unknown
	Loss of Connectivity	Unknown
	Cyber Interference	No
	AtoN failure	No Unlit - Barrel Rock(Pe), Mill Rock (Po), Town Rock Beacon, Bradley (Po), Toad Stone (Pe), e of Gibbs Island (Pe), Skate Rock (Po). Ballyhenry Island Lighted Beacon QG 3M.
	Loss of PNT	No
	Substandard Ships	Yes Individuals responsible for boat condition
Human	Crew competency	Yes Small boat owners unlikely to have RYA training
	Fatigue	No
	Safety Culture	Yes
	Influence of alcohol/drugs	No
	Availability and competency of Vessel Traffic Services	No Recommended tracks and clearing lines AC 2156: E – Perch on long Sheelagh 355.5° F – Portaferry Windmill open on Chapel Island clears Skate Rock. Town Rock beacon 271° for Killyleagh.
	Other AtoN provider competency	No
	Availability & competency of pilotage	No No pilots on Lough
	Piracy/Terrorism	No

HAZARDS	Possible	Remarks	
Political Issues	No		
Culture/Language Issues	No	Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.	
Crew medical issues	No		
Crew distractions	No		
Operational	Impact of smaller vehicles	Yes	Mixture of boating types. No recorded issues.
	Fishing Activities	Yes	Small lobster boats, small fishing boats.
	Seasonal Activities	Yes	
	Poor passage planning	Possible	Individuals responsibility, unknown. Not suitable for deep keeled vessels.
	Inadequate routing guidance	Yes	None available
	Poor route monitoring	Yes	None available
	Poor promulgation of Maritime Safety Information (MSI)	Unknown	
	Poor response to marking new danger	Unknown	
Maritime Space	The existence of wrecks and new dangers	Yes	4 no wrecks recorded.
	Crowded waterway issues	No	
	Existence of restricted areas (eg ammunition, fish farms)	Yes	Aquiculture SE Skate Rock boundary with Zone 8.
Waterway Complexity	Sharp Bends	No	
	Narrow fairway	Yes	Craft follow Quoile River SW to Quoile Barrage / Quoile Yacht Club at low tide.
	Manoeuvring space	No	
	Traffic Considerations	No	No regular commercial traffic
	Limited depth of water	No	
	New or existing obstructions	No	None
	Mobile seabed	No	No issues reported
	Channel siltation	No	No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Low risk Quoile River approach to QSC.
	Overtaking	Possible
	Bend	Turn to east Green Island / Skate Rock
	Crossing	Possible Killyleagh
	Merging	Possible
Groundings	Grounding on rock	Possible between Green Island / Skate rock
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	4 no wrecks recorded.
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	Fish farm SE Skate Rock
	Aids to navigation	Possible
Foundering	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
1. Collisions	Head-On	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	3	4	12	Appropriate AToN
		Tide, wind, wave and current effect						
		Poor Visibility						
	Overtaking	Congestion of waterway	4	2	8			
		Human error						
		Tide, wind, wave and current effect						
Crossing	Poor Visibility	3	2	6	Appropriate AToN			
	Congestion of waterway							
	Human error							
	Tide, wind, wave and current effect							
Merging	Poor Visibility	4	2	8				
	Congestion of waterway							
	Human error							
	Tide, wind, wave and current effect							
2. Groundings	Grounding on rock	Poor Visibility	2	4	8	Appropriate AToN		
		Congestion of waterway						
		Human error						
		Tide, wind, wave and current effect						

Zone 10 – Main Channel South

Hazard Identification

HAZARDS	Possible	Remarks	
Natural	Safe Minimum Depth	Yes Admiralty Chart No 2156, Area comprises the main channel from Audley's Point Ballyhenry Point south to entrance to Strangford Lough from Irish Sea. Depths vary, steeply shelving shoreline to 12 – 15m in the Narrows north and south of Strangford / Portaferry, with depths of 33 – 59. General depths 7 - 17m along shorelines, depths of 22, 33 – 37 & 40 experienced south of Gowland Rock / Salt rock to open sea.	
	Proximity of Danger (Nautical Miles)	No	
	Tide, Wind, wave and current effect	Yes Tidal streams 5knot ebb tide, 2knots on flood tide in vicinity of Chapel Island roads. Refer to chart. Refer to chart AC2156. Routen wheel and whirlpools between Gowland Rocks / Black Islands / Islandacorr. Overfalls – tide rips – note – AC5612 – overfalls and tide rips may extend up to 1 mile outside St Patricks rock (54.18.58N, 5.30.94W.) during the S going stream, particularly when the wind is between SSW and E.	
	Ice Conditions	Negligible	No issues for passage
	Minimum Visibility	Yes	
	Low Sun Issues	No	None recorded
	Background Lighting	No	No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No	
	Earthquake and Tsunami	No	Not a seismic area of concern
	Economic	Legal Action Problems	Unknown
Insufficient AtoN funding issues		Unknown	Risk assessment
Technical	Shipborne Navaid Failure	Negligible	Boatowner responsibility.
	Quality & Validity of Chartered Information	No	Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown	RNLI or other records
	Loss of Communications	Unknown	
	Loss of Connectivity	Unknown	
	Cyber Interference	No	
	AtoN failure	No	Ballyhenry Island Lighted Beacon QG 3M. Church Point Lighted beacon FL 4 R 10s. Walter Rocks (Po), Strangford: N Pladdy Beacon – NQ Swan Island Beacon – FL(2) WR 6s 5M S Pladdy Beacon – FL (3) 10 sec Leading Lights – Occ R 5s 10m Rear leading light Occ WRG 5s 6M 9/6M Front leading light Watch House Beacon – Q R 3m 3M. S of Portaferry east shore – (Pe), Scotchman's Rock (Po)

HAZARDS	Possible	Remarks
		Black Island (Po) Gowland Rock Beacon conspic - Oc (2) G.10 6m5M Salt Rock Beacon conspic FL.R3S 8M 3m. Barr Pladdy Y South Cardinal. SWB WR
	No	Loss of PNT
	Yes	Substandard Ships
	Yes	Crew competency
	Yes	Fatigue
	Yes	Safety Culture
	No	Influence of alcohol/drugs
	No	Availability and competency of Vessel Traffic Services
Human		Recommended tracks and clearing lines AC 2156: E – Perch on long Sheelagh 355.5° F – Portaferry Windmill open on Chapel Island clears Skate Rock. Town Rock beacon 271° for Killyleagh.
	No	Other AtoN provider competency
	No	Availability & competency of pilotage
	No	Piracy/Terrorism
	No	Political Issues
	No	Culture/Language Issues
		Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.
	No	Crew medical issues
	No	Crew distractions
	Yes	Impact of smaller vehicles
	Yes	Fishing Activities
	Yes	Seasonal Activities
Operational	Possible	Poor passage planning
	Yes	Inadequate routing guidance
	Yes	Poor route monitoring
	Unknown	Poor promulgation of Maritime Safety Information (MSI)
	Unknown	Poor response to marking new danger
Maritime Space	Yes	The existence of wrecks and new dangers
	No	Crowded waterway issues
	Yes	Existence of restricted areas (eg ammunition, fish farms)
		Aquiculture SE Skate Rock boundary with Zone 9.
Waterway Complexity	No	Sharp Bends
	No	Narrow fairway
	No	Manoeuvring space
	No	Traffic Considerations
		No regular commercial traffic

HAZARDS	Possible	Remarks
Limited depth of water	No	
New or existing obstructions	No	None
Mobile seabed	No	No issues reported
Channel siltation	No	No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
	Head-On	Low risk
	Overtaking	Probable
Collisions	Bend	No
	Crossing	Possible
	Merging	Possible
Groundings	Grounding on rock	Possible
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	21 no wrecks recorded.
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	Ballyhenry Bay
	Breakwaters	N/A
	Aquaculture Site	N/A
	Aids to navigation	Possible
Foundering	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
1. Collisions	Head-On	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	3	4	12	Appropriate ATon
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
	Overtaking	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	4	2	8	Appropriate ATon
		Tide, wind, wave and current effect						
		Poor Visibility						
	Crossing	Congestion of waterway	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	3	2	6	Appropriate ATon
		Human error						
		Tide, wind, wave and current effect						
Merging	Poor Visibility	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	4	2	8	Appropriate ATon	
	Congestion of waterway							
	Human error							
	Tide, wind, wave and current effect							
2. Groundings	Grounding on soft ground	Congestion at port / marina	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	4	8	Appropriate ATon
		Missing / unlit rocks pladdies						
	Grounding on wrecks	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	3	6	Appropriate ATon
		Aids to navigation						
3. Allisions	Aids to navigation	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing ATon	2	3	6	Appropriate ATon

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
		Human error						
		Tide, wind, wave and current effect						
	Piers / pontoons	Poor Visibility	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	
		Congestion of waterway						Appropriate AToN
		Human error						
	Wave and Tidal Energy Structures (Ballyhenry Bay)	Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway			2	3	6	
		Human error						
		Poor control of vessel						
	Capsizing	Tide, wind, wave and current effect (routen wheel / whirlpools)						
		Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	
		Poor control of vess						Appropriate AToN
4. Foundering		Missing AToN / unlit rocks pladdies						
	Sinking	Tide, wind, wave and current effect (routen wheel / whirlpools)			2	4	8	
5. Structural Failure	Structural Failure of Vessels	Substandard vessels	Significant damage/loss of vessels	Individuals responsible for boat condition	1	3	3	

Zone 11 – Audley’s Roads (also known as Strangford or Castleward Bay)

Hazard Identification

HAZARDS	Possible	Remarks	
Natural	Safe Minimum Depth	Yes Admiralty Chart No 2156, Area comprises the bay between Audley's Castle Pier and Church Point. South of Sleitch Rocks / Strangford Sailing Club Bay dries at CD, with narrow southerly access approximately 3m deep with 9m hole.	
	Proximity of Danger (Nautical Miles)	No	
	Tide, Wind, wave and current effect	No	
	Ice Conditions	Negligible	No issues for passage
	Minimum Visibility	Yes	
	Low Sun Issues	No	None recorded
	Background Lighting	No	No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No	
Economic	Earthquake and Tsunami	No	Not a seismic area of concern
	Legal Action Problems	Unknown	
Technical	Insufficient AtoN funding issues	Unknown	Risk assessment
	Shipborne Navaid Failure	Negligible	Boatowner responsibility.
	Quality & Validity of Chartered Information	No	Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown	RNLI or other records
	Loss of Communications	Unknown	
	Loss of Connectivity	Unknown	
	Cyber Interference	No	
	AtoN failure	No	S of Strangford Sailing Club, N of Boat House Dickson's Island (Po) Sleitch Rocks (Po) Church Point W (Po). Church Point (Po).
	Loss of PNT	No	
	Substandard Ships	Yes	Individuals responsible for boat condition
Human	Crew competency	Yes	Small boat owners unlikely to have RYA training
	Fatigue	No	
	Safety Culture	Yes	
	Influence of alcohol/drugs	No	Individual boat owner rules.
	Availability and competency of Vessel Traffic Services	No	
	Other AtoN provider competency	No	
	Availability & competency of pilotage	No	No pilots on Lough
	Piracy/Terrorism	No	
	Political Issues	No	
	Culture/Language Issues	No	Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.

HAZARDS	Possible	Remarks
Crew medical issues	No	
Crew distractions	No	
Operational	Impact of smaller vehicles	Yes Mixture of boating types. No recorded issues.
	Fishing Activities	Yes Small lobster boats, small fishing boats.
	Seasonal Activities	Yes
	Poor passage planning	Possible Individuals responsibility, unknown. Not suitable for deep keeled vessels.
	Inadequate routing guidance	Yes None available
	Poor route monitoring	Yes None available
	Poor promulgation of Maritime Safety Information (MSI)	Unknown
	Poor response to marking new danger	Unknown
Maritime Space	The existence of wrecks and new dangers	Yes 4 no wrecks recorded
	Crowded waterway issues	No
	Existence of restricted areas (eg ammunition, fish farms)	Yes Oyster Beds in southern shallows / mud flats vicinity of Crane's Corner.
Waterway Complexity	Sharp Bends	No
	Narrow fairway	No Major route into lough from Irish Sea, past Strangford / Portaferry to Ballyhenry point.
	Manoeuvring space	No
	Traffic Considerations	No No regular commercial traffic
	Limited depth of water	Yes Drying out in southern areas, Zara shoal E of Sleitch Rocks – 0.6 – 2.7m at CD. Audley's Road's moorings, in 11 – 15m. Channel 0.6 – 9m
	New or existing obstructions	No None
	Mobile seabed	No No issues reported
	Channel siltation	No No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Low risk
	Overtaking	No
	Bend	No
	Crossing	No
	Merging	No
Groundings	Grounding on rock	Possible on Sleitch Rocks
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	4 no wrecks recorded.
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	Oyster farm, south w of Cranes Corner
	Aids to navigation	Possible
Foundering	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
1. Collisions	Head-On	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	4	8	Appropriate AToN
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
2. Groundings	Grounding on rock Grounding on soft ground Grounding on wrecks	Missing / unlit rocks pladdies / shoals	Damage to vessel / sinking / stranding	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	4	8	Appropriate AToN
		Human error						
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
3. Allisions	Pier Aquaculture Site (Oyster farm, south w of Cranes Corner)	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	Appropriate AToN
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway						
		Human error						
		Tide, wind, wave and current effect						
4. Foundering	Capsizing	Human error	Damage to vessel / sinking		2	3	6	Appropriate AToN
		Poor control of vessel						

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
		Tide, wind, wave and current effect						
		Human error						
		Poor control of vessel						
	Sinking	Missing AToN / unlit rocks pladdies		Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	
		Tide, wind, wave and current effect						
5. Structural Failure	Structural Failure of Vessels	Substandard vessels	Significant damage/loss of vessels	Individuals responsible for boat condition	1	3	3	

Zone 12 – The Meadows

Hazard Identification

HAZARDS	Possible	Remarks	
Natural	Safe Minimum Depth	Yes Admiralty Chart No 2156, Area comprises the eastern shoreline from Rue Point south to Ballyquintin Point. Northern Bay Gowland Rock / Beardy Rocks dry at CD, Granagh Bay, hole 12.5m deep. Dogtail Point to Carrstown Point, drying shoreline, steeply sloped to 5 – 8m. The Meadows, Black Island, Salt Rock, Paddy Lug & Fadgies Rock. All dry at CD. Water depth <2m, 5m depth to edge of main channel, incl Bar Pladdy.	
	Proximity of Danger (Nautical Miles)	No	
	Tide, Wind, wave and current effect	No	
	Ice Conditions	Negligible	No issues for passage
	Minimum Visibility	Yes	
	Low Sun Issues	No	None recorded
	Background Lighting	No	No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No	
Economic	Earthquake and Tsunami	No	Not a seismic area of concern
	Legal Action Problems	Unknown	
Technical	Insufficient AtoN funding issues	Unknown	Risk assessment
	Shipborne Navaid Failure	Negligible	Boatowner responsibility.
	Quality & Validity of Chartered Information	No	Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown	RNLI or other records
	Loss of Communications	Unknown	
	Loss of Connectivity	Unknown	
	Cyber Interference	No	
	AtoN failure	No	Gowland Rocks Beacon conspic Oc(2)G.10s.6m.5M. Dogtail Beacon Oc(40G.10s5M. Paddy Lug Beacon.
	Loss of PNT	No	
	Substandard Ships	Yes	Individuals responsible for boat condition
Human	Crew competency	Yes	Small boat owners unlikely to have RYA training
	Fatigue	No	
	Safety Culture	Yes	
	Influence of alcohol/drugs	No	Individual boat owner rules.
	Availability and competency of Vessel Traffic Services	No	
	Other AtoN provider competency	No	
	Availability & competency of pilotage	No	No pilots on Lough
	Piracy/Terrorism	No	
	Political Issues	No	

HAZARDS	Possible	Remarks
Culture/Language Issues	No	Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.
Crew medical issues	No	
Crew distractions	No	
Operational	Impact of smaller vehicles	Yes Mixture of boating types. No recorded issues.
	Fishing Activities	Yes Small lobster boats, small fishing boats.
	Seasonal Activities	Yes
	Poor passage planning	Possible Individuals responsibility, unknown. Not suitable for deep keeled vessels.
	Inadequate routing guidance	Yes None available
	Poor route monitoring	Yes None available
	Poor promulgation of Maritime Safety Information (MSI)	Unknown
Poor response to marking new danger	Unknown	
Maritime Space	The existence of wrecks and new dangers	Yes 21 no wrecks recorded
	Crowded waterway issues	No
	Existence of restricted areas (eg ammunition, fish farms)	No
Waterway Complexity	Sharp Bends	No
	Narrow fairway	No No passage at low tide. Not suitable for traffic.
	Manoeuvring space	No
	Traffic Considerations	No No regular commercial traffic
	Limited depth of water	Yes As per safe minimum depth above.
	New or existing obstructions	No None
	Mobile seabed	No No issues reported
	Channel siltation	No No defined channels requiring dredging

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	No
	Overtaking	No
	Bend	No
	Crossing	No
	Merging	No
Groundings	Grounding on rock	Possible
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	21 no wrecks recorded.
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	N/A
	Aids to navigation	Possible
Foundering	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
1. Collisions	Grounding on rock							
2. Groundings	Grounding on soft ground	Missing / unlit rocks / pladdies / shoals	Damage to vessel / sinking / stranding	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	4	8	Appropriate AToN
	Grounding on wrecks							
3. Allisions	Aids to navigation	Human error						
		Tide, wind, wave and current effect						
		Poor Visibility						
		Congestion of waterway	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	Appropriate AToN
	Pier	Human error						
4. Foundering	Capsizing	Tide, wind, wave and current effect						
		Poor control of vessel						
	Sinking	Human error	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	Appropriate AToN
		Poor control of vessel						
		Missing AToN / unlit rocks / pladdies						
	Tide, wind, wave and current effect							
5. Structural Failure of Vessels	Structural Failure of Vessels	Substandard vessels	Significant damage/loss of vessels	Individuals responsible for boat condition	1	3	3	

Zone 13 – West Channel

Hazard Identification

HAZARDS	Possible	Remarks
Natural	Safe Minimum Depth	Yes Admiralty Chart No 2156, Area comprises the western shoreline from Killard Point to Black Islands. West Channel & Mill Quarter Bay, S and W of Angus Rock, shallows 2m – 5m, The Potts rocks and obstructions 0.8 – 1.7m at CD S of the Potts. Anchorage at Cross Roads, 11M at CD.
	Proximity of Danger (Nautical Miles)	No
	Tide, Wind, wave and current effect	Yes 2.5 Knots at Flood and Ebb tides. 4knots at ebb tide S of Angus Rock.
	Ice Conditions	Negligible No issues for passage
	Minimum Visibility	Yes
	Low Sun Issues	No None recorded
	Background Lighting	No No issues
	Loss of Positioning Navigation & Timing (geographical Obstruction)	No
Economic	Earthquake and Tsunami	No Not a seismic area of concern
	Legal Action Problems	Unknown
Technical	Insufficient AtoN funding issues	Unknown Risk assessment
	Shipborne Navaid Failure	Negligible Boatowner responsibility.
	Quality & Validity of Chartered Information	No Admiralty chart 5621 / online live chart data fishing and
	Loss of Vessel control	Unknown RNLI or other records
	Loss of Communications	Unknown
	Loss of Connectivity	Unknown
	Cyber Interference	No
	AtoN failure	No Black Island E (Po) Salt Rock Beacon Fl.R.3s.8m.3M. Anchor Beacon Angus Rock Tower (Pepperpot) FL.R.5s.15m6M. Tail of Angus Beacon St Patricks Rock Beacon
	Loss of PNT	No
	Substandard Ships	Yes Individuals responsible for boat condition
	Human	Crew competency
Fatigue		No
Safety Culture		Yes
Influence of alcohol/drugs		No Individual boat owner rules.
Availability and competency of Vessel Traffic Services		No
Other AtoN provider competency		No
Availability & competency of pilotage		No No pilots on Lough
Piracy/Terrorism		No
Political Issues	No	

HAZARDS	Possible	Remarks
Culture/Language Issues	No	Primarily local boat owners. Potential for visiting boats from abroad, no issues recorded in respect of language problems.
Crew medical issues	No	
Crew distractions	No	
Operational	Impact of smaller vehicles	Yes Mixture of boating types. No recorded issues.
	Fishing Activities	Yes Small lobster boats, small fishing boats.
	Seasonal Activities	Yes
	Poor passage planning	Possible Individuals responsibility, unknown. Not suitable for deep keeled vessels.
	Inadequate routing guidance	Yes None available
	Poor route monitoring	Yes None available
	Poor promulgation of Maritime Safety Information (MSI)	Unknown
Poor response to marking new danger	Unknown	
Maritime Space	The existence of wrecks and new dangers	Yes 8 no wrecks recorded
	Crowded waterway issues	No
	Existence of restricted areas (eg ammunition, fish farms)	No
Waterway Complexity	Sharp Bends	No Recommended tracks and clearing lines AC 2156: West Side Clump of Trees and Killeif Church in line 320.5° Clears St Patricks rock and Craighomas 9N Killard Point).
	Narrow fairway	No No passage at low tide. Not suitable for traffic.
	Manoeuvring space	No
	Traffic Considerations	No No regular commercial traffic
	Limited depth of water	Yes Northern extent Black Islands, Drying at CD, Salt Rock, Cloghy Rocks. Mud flats south of Cloghy Point to Killeif Point. Stony from Castle Flannan south to Killard point. Deep water in north to east (Zone 10). West Channel & Mill Quarter Bay, S and W of Angus Rock, shallows 2m – 5m, The Potts rocks and obstructions 0.8 – 1.7m at CD S of the Potts.
	New or existing obstructions	No None
	Mobile seabed	No No issues reported
Channel siltation	No No defined channels requiring dredging	

Scenario Development

Scenarios	Remarks	
Collisions	Head-On	Low risk
	Overtaking	No
	Bend	No
	Crossing	No
	Merging	No
Groundings	Grounding on rock	Possible
	Grounding on Soft Bottom	Likely in shallows
	Grounding on wrecks	8 no wrecks recorded.
Allisions	Windfarms	N/A
	Oil Rigs	N/A
	Wave and Tidal Energy Structures	N/A
	Breakwaters	N/A
	Aquaculture Site	N/A
Foundering	Aids to navigation	Possible
	Capsizing	Possible
	Sinking	Possible
Structural Failure	Structural Failure of Vessel	Yes
	Structural failure of features external to vessel (bridge, lighthouse etc)	No
Other	Engine fire	No
	Cargo Fire	No

Risk Assessment

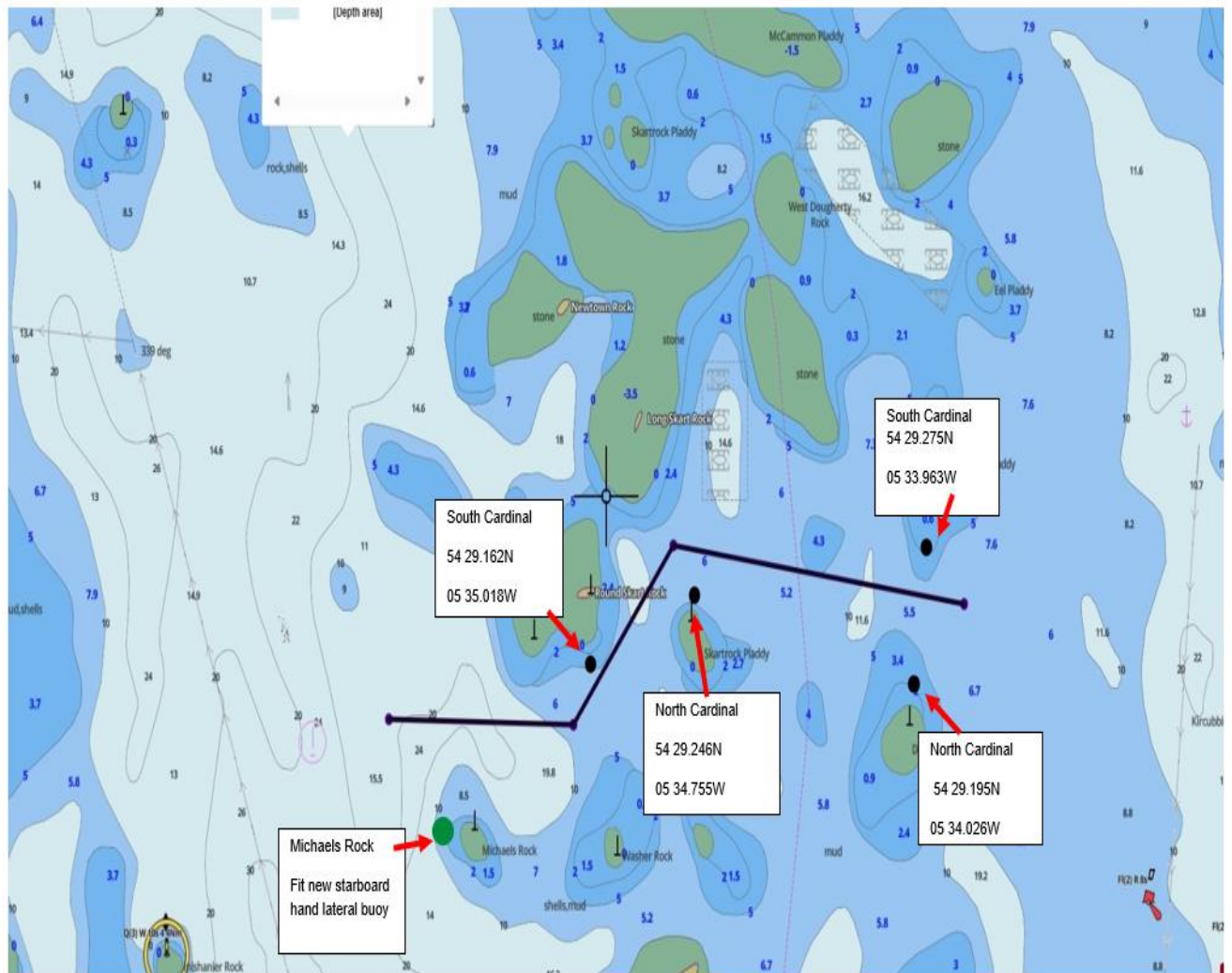
Scenarios	Description of Incident	Root cause / Hazards	Description of Consequences	Existing Risk Control Measures	Probability Score	Consequence Score	Risk Score	Further risk control options
1. Collisions	Head-On	Human error	Damage to vessel / sinking / stranding	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	1	4	4	Appropriate AToN
		Tide, wind, wave and current effect						
		Poor Visibility						
2. Groundings	Grounding on rock Grounding on soft ground Grounding on wrecks	Missing / unlift rocks pladdies	Damage to vessel / sinking / stranding	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	4	8	Appropriate AToN
		Human error						
		Tide, wind, wave and current effect						
3. Allisions	Aids to navigation	Poor Visibility	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	Appropriate AToN
		Congestion of waterway						
		Human error						
4. Foundering	Capsizing	Poor control of vessel	Damage to vessel / sinking	Operator competency, Chart plotter, Sailing during appropriate tides, Existing AToN	2	3	6	Appropriate AToN
		Tide, wind, wave and current effect						
		Human error						
5. Structural Failure Vessels	Structural Failure of Vessels	Human error	Significant damage/loss of vessels	Individuals responsible for boat condition	1	3	3	
		Poor control of vessel						
		Missing AToN / unlift rocks pladdies						
5. Structural Failure Vessels	Structural Failure of Vessels	Tide, wind, wave and current effect	Significant damage/loss of vessels	Individuals responsible for boat condition	1	3	3	
		Substandard vessels						
		Standard vessels						

KYC, Preferred local route Kircubbin to Whiterock

This route will be marked with 4 non-lit Cardinal Buoys, two North and two South.

Example chart only.

Additional required local East/West route Kircubbin to White Rock. Fit four new Cardinal Buoys.



SLYC Preferred local route White Rock to Ringhaddy not lit.

This route will be marked with two non-lit Cardinal Poles 1 North, 1 West and a non-lit West Cardinal Buoy.

Example chart only.

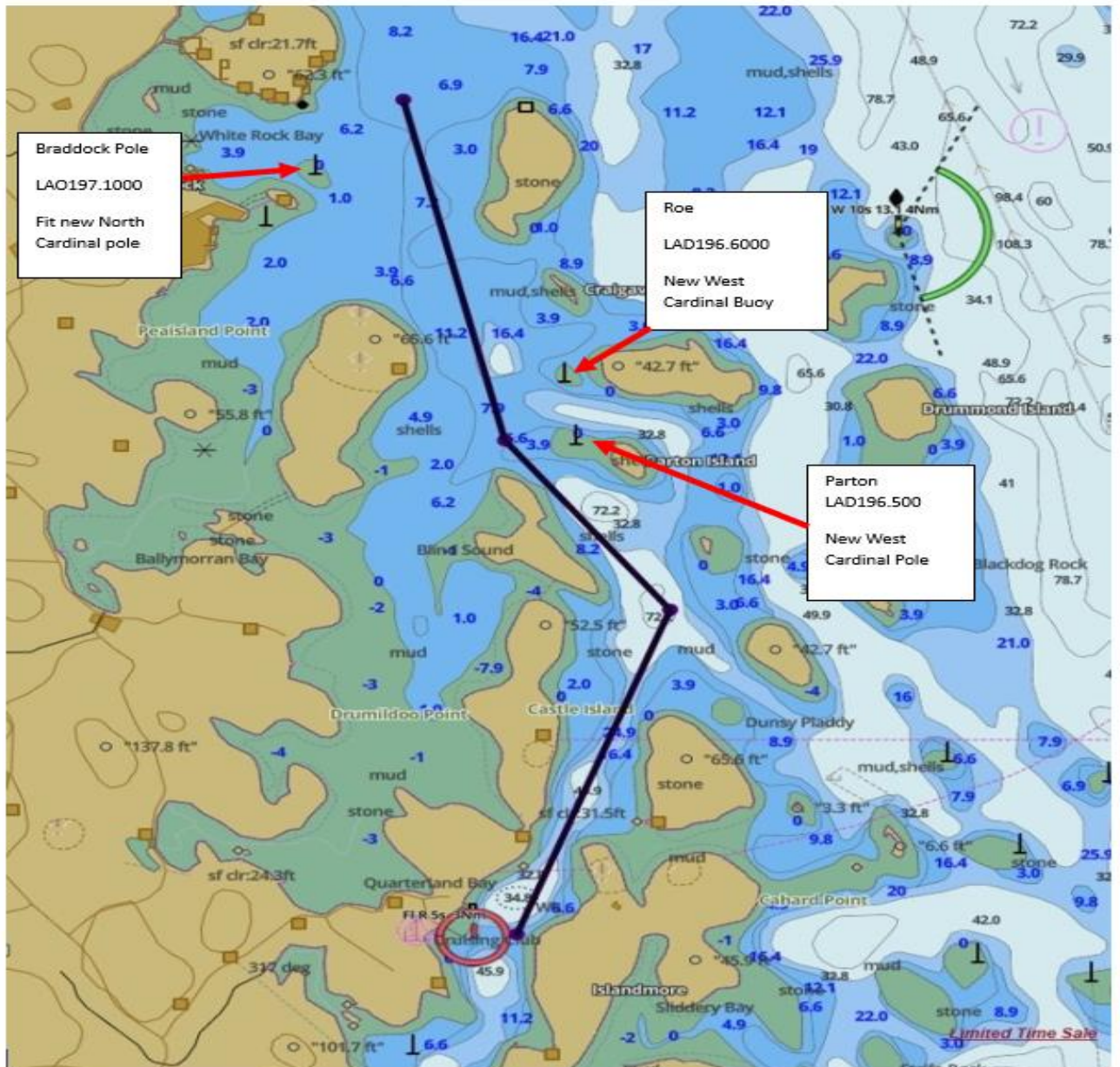


Chart of existing AtoNs On main primary arterial route.



Chart of proposed AtoNs main primary arterial route

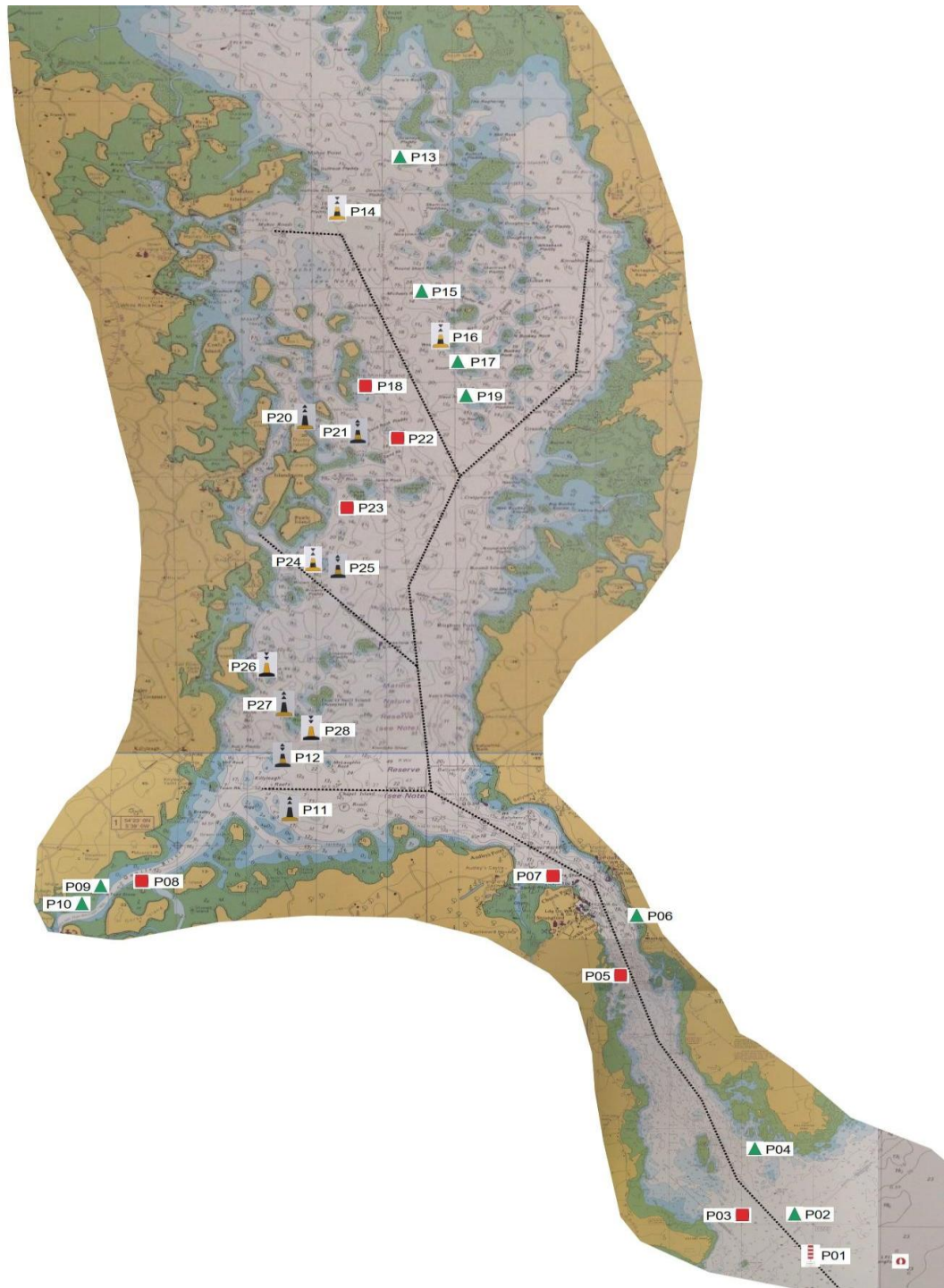
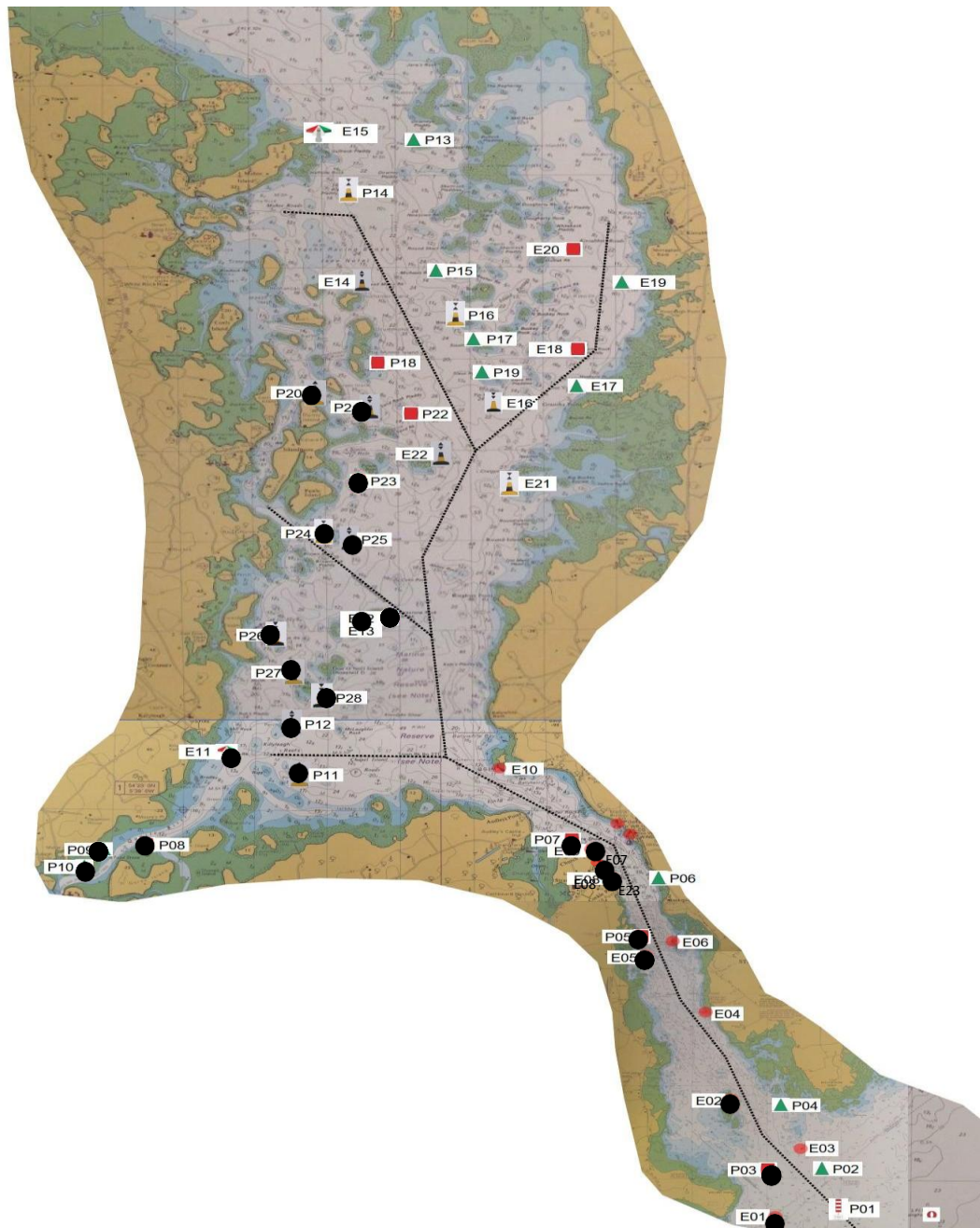


Chart of existing and new AtoNs primary arterial route.
(ANDBC area only)



Unclassified

231

ITEM 8**Ards and North Down Borough Council**

Report Classification	Unclassified
Exemption Reason	Not Applicable
Council/Committee	Environment Committee
Date of Meeting	02 April 2025
Responsible Director	Director of Environment
Responsible Head of Service	Head of Assets and Property Services
Date of Report	14 March 2025
File Reference	65373
Legislation	The Harbours Act 1970, Merchant Shipping Act 1995
Section 75 Compliant	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other <input type="checkbox"/> If other, please add comment below:
Subject	Harbours Designated Person Audit Findings
Attachments	Appendix 1: Designated Person Audit Findings

Background

Members will recall that the 6-month Harbours Safety Update report brought to Committee in February 2025, advised that a new 'Designated Person' had been appointed to provide oversight and audit of the Council's compliance with its duties under the Port Marine Safety Code.

Orcades Marine conducted an independent Port Marine Safety Code Audit in February 2025 at Groomsport, Donaghadee, Ballywalter, Ballyhalbert and Cooke Street, Portaferry. The Harbour Master was in attendance to assist the Auditor over a 2-day period, providing a tour of the facilities and allowing access to relevant documentation. The report attached at Appendix 1 details the findings of the audit.

Summary of Findings

Good practices were observed across operations during the auditor's visit and a comprehensive Marine Safety Management System (MSMS) is in place with records up to date in compliance with the PMSC. The Harbour Master has facilitated the ongoing training of the marine operatives, both in practical training such as

Not Applicable

232

powerboat level 2 and in academic qualification such as Harbour Master Diploma (Lloyds Maritime Academy), highlighting the team's commitment to safety. ANDBC Harbours Team have demonstrated a strong commitment to the PMSC and its continual improvement of its MSMS. The following recommendations were made:

- The MSMS should be updated to include the new Designated Person contact details.
- Individual names/job roles of Duty Holder should be defined in the MSMS.
- Section 3.1.2 should include a statement that the duty holder cannot assign or delegate their accountability for compliance with the code on the ground that they do not have particular skills.
- The transfer of incident and accident reporting to electronic system should be completed.
- The Marine Safety Policy (last signed 2018) should be reviewed to ensure relevance.

The Designated Person, Alexandra Thompson, will present the audit findings directly to the Environment Committee, as the 'Duty Holder' under the Port Marine Safety Code and in compliance with the guidance contained therein.

The recommended changes will soon be implemented and a further update report brought before Members in due course.

RECOMMENDATION

It is recommended that Council note the Designated Person Audit findings.



Port Marine Safety Code Review



OP-587



**Ards and
North Down**
Borough Council

Commercial in Confidence

This report is issued to:

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Alexandra Thomson	David Thomson	David Thomson	17/02/2025
Revision Number	Issue Date	Revision Details	Distribution List Index Number
1.0	17/02/2025	First Issue	1, 2, 3
1.1	17/02/2025	Updated	1, 2, 3

Distribution List Key

Company	Responsible Person	Distribution List Index Number
ANDBC	William Angus	1
ANDBC	Peter Cauldwell	2
ANDBC	Chrissy Henderson	3

Contents

1.	Introduction	5
2.	Executive Summary.....	5
2.1	Summary of Recommendations	5
3.	Port Details.....	6
3.1	Groomsport	6
3.1.1	Description:	6
3.1.2	Address and Entrance Position	6
3.2	Donaghadee.....	7
3.2.1	Description	7
3.2.2	Address and Entrance Position	7
3.3	Ballywalter	8
3.3.1	Description	8
3.3.2	Address and Entrance Position.....	8
3.4	Ballyhalbert.....	9
3.4.1	Description	9
3.4.2	Address and Entrance Position	9
3.5	Cook Street Portaferry.....	10
3.5.1	Description	10
3.5.2	Address and Entrance Position	10
3.6	Organogram.....	11
4.	Audit Detail	12
4.1	Designated Person.....	12
4.2	Duty Holders	13
4.3	Duties and Powers.....	15
4.4	Consultation & Information Dissemination.....	16
4.5	Risk Assessment.....	17
4.6	Safety Management System.....	18
4.7	Conservancy Observations	23
4.8	Directions.....	24
4.9	Training.....	25
4.10	Vessel Traffic Services.....	26
4.11	Published Documents.....	27
5.	Final Checks.....	27



Figure 1 Groomsport Harbour 6
Figure 2 Donaghadee Harbour..... 7
Figure 3 Ballywalter 8
Figure 4 Ballyhalbert 9
Figure 5 Cook Street - Portaferry 10
Figure 6 Organogram 11

1. Introduction

An independent Port Marine Safety Code Audit was carried out by Orcades Marine Management Consultants Ltd. on the 10th February 2025 at ANDCB harbours; Groomsport, Donaghadee, Ballywalter, Ballyhalbert and Cooke Street, Portaferry. The Harbour Master was in attendance to assist the Auditor over a 2-day period and was happy to provide a tour of the facilities and allow access to relevant documentation. The following report details the findings of the audit.

2. Executive Summary

This report presents the findings of an independent assessment of ANDBC harbours compliance with the Port Marine Safety Code (PMSC). Good practices were observed across operations during the auditors visit and a comprehensive Marine Safety Management System (MSMS) is in place with records up to date in compliance with the PMSC. The Harbour Master has facilitated the ongoing training of the marine operatives, both in practical training such as powerboat level 2 and in academic qualification such as Harbour Master Diploma (Lloyds Maritime Academy) highlighting the teams commitment to safety. Some recommendations for improvement have been documented in section 2.1. ANDCB Harbours have demonstrated a strong commitment to the PMSC and its continual improvement of its MSMS.

2.1 Summary of Recommendations

- 🔍 The MSMS should be updated to include the new Designated Person contact details.
- 🔍 Individual names/job roles of Duty Holder should be defined in the MSMS.
- 🔍 Section 3.1.2 should include a statement that the duty holder cannot assign or delegate their accountability for compliance with the code on the ground that they do not have particular skills.
- 🔍 Complete the transfer for incident and accident reporting to electronic system.
- 🔍 Recommend reviewing Marine Safety Policy (last signed 2018) to ensure relevance.

3. Port Details

3.1 Groomsport

3.1.1 Description:

Groomsport Harbour is a small amenity harbour that has an inshore fishing fleet of 2 boats under 10m, berthed annually on fore and aft moorings and up to 80 pleasure craft 8 meters and under. The Harbour is tidal with a maximum speed limit of 4 knots. The harbour facilities offer;

- 🌀 Slipway
- 🌀 Drying out berth
- 🌀 Hard standing
- 🌀 Electricity
- 🌀 Water
- 🌀 Waste collection
- 🌀 Waste oil collection
- 🌀 Recycling on site
- 🌀 Public toilets
- 🌀 Locked storage

3.1.2 Address and Entrance Position

54°40'39.26"N 5°37'3.06"W

Groomsport Harbour Office, Harbour Road, Groomsport. BT19 6JP.

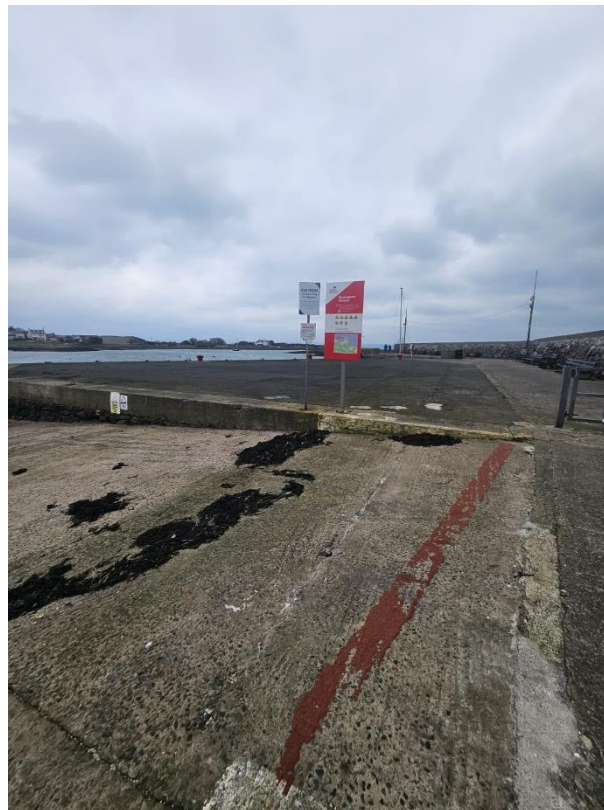


Figure 1 Groomsport Harbour







3.2 Donaghadee

3.2.1 Description

Donaghadee Harbour is a small amenity harbour that has an inshore fishing fleet of 6 boats under 10m, berthed annually on fore and aft moorings and up to 50 pleasure craft 12 metres and under.

The majority of pleasure craft are berthed on swinging moorings with a few fore and aft against the quay wall. The harbour also accommodates a Trent class lifeboat on behalf of the RNLI.

The harbour is non-tidal with a maximum speed limit of 4 knots. Facilities:

-  Slipway
-  Refuelling station
-  Electric
-  Water
-  Waste collection
-  Waste oil collection (by prior arrangement)

3.2.2 Address and Entrance Position

54° 38.707' N, 005° 31.860' W

Donaghadee Harbour Office, 44 The Parade, Donaghadee, BT21 0HE.












Figure 2 Donaghadee Harbour

3.3 Ballywalter

3.3.1 Description

Ballywalter Harbour is a small amenity harbour that has an inshore fishing fleet of up to 5 fishing boats 10 metres and under, berthed annually alongside the quay wall. The harbour can also accommodate approximately 20 pleasure craft 8 metres and under, berthed annually on swinging moorings.

The harbour is tidal with a maximum speed limit of 4 knots. Facilities:

-  Slipway
-  Drying out berth
-  Hard standing
-  Electric (additional cost)
-  Water
-  Waste collection
-  Waste oil collection (by prior arrangement)
-  Berth holder car park
-  Recycling facilities on site

3.3.2 Address and Entrance Position

54° 32.799' N, 005° 28.576' W

Ballywalter Harbour, C/O Donaghadee Harbour Master, Donaghadee Harbour Office, 44 The Parade, Donaghadee, BT21 0HE.



Figure 3 Ballywalter

3.4 Ballyhalbert

3.4.1 Description

Ballyhalbert Harbour is a small amenity harbour that can accommodate up to 10 pleasure boats up to 12 metres in length, berthed annually alongside the quay wall.

The harbour is tidal with a maximum speed limit of 4 knots.

Facilities:

- ☑ Slipway
- ☑ Electric (additional cost)
- ☑ Water
- ☑ Waste collection
- ☑ Waste oil collection (by prior arrangement)
- ☑ Public car park adjacent to the harbour
- ☑ Public Toilets

3.4.2 Address and Entrance Position

54° 29.456' N, 005° 26.420' W

Ballyhalbert Harbour, C/O Donaghadee Harbour Master, Donaghadee Harbour Office, 44 The Parade, Donaghadee, BT21 0HE.



Figure 4 Ballyhalbert

3.5 Cook Street Portaferry

3.5.1 Description

Groomsport Harbour is a small amenity harbour that has an inshore fishing fleet of 2 boats under 10m, berthed annually on fore and aft moorings and up to 80 pleasure craft 8 metres and under.

The harbour is tidal with a maximum speed limit of 4 knots.

Facilities:

- ⊗ Slipway
- ⊗ Drying out berth
- ⊗ Hard standing
- ⊗ Electric
- ⊗ Water
- ⊗ Waste collection
- ⊗ Waste oil collection (by prior arrangement)
- ⊗ Recycling on site
- ⊗ Public Toilets
- ⊗ Locked Storage (by prior arrangement)

3.5.2 Address and Entrance Position

54° 22' 28.91" N, 005° 32' 47.0" W

Cook Street Jetty, C/O Donaghadee Harbour Master, Donaghadee Harbour Office, 44 The Parade, Donaghadee, BT21 0HE.

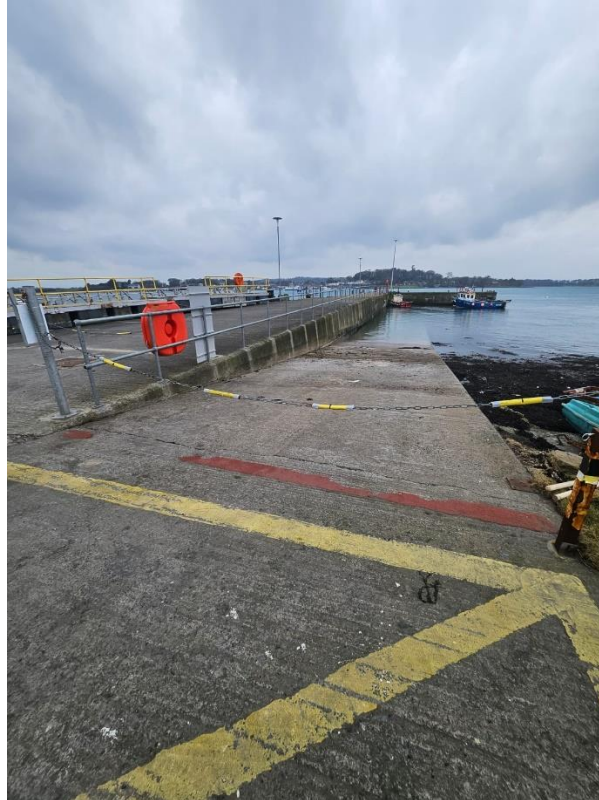


Figure 5 Cook Street - Portaferry

3.6 Organogram

Please see the below organogram showing the management structure of the Harbours along with clear lines of communications.

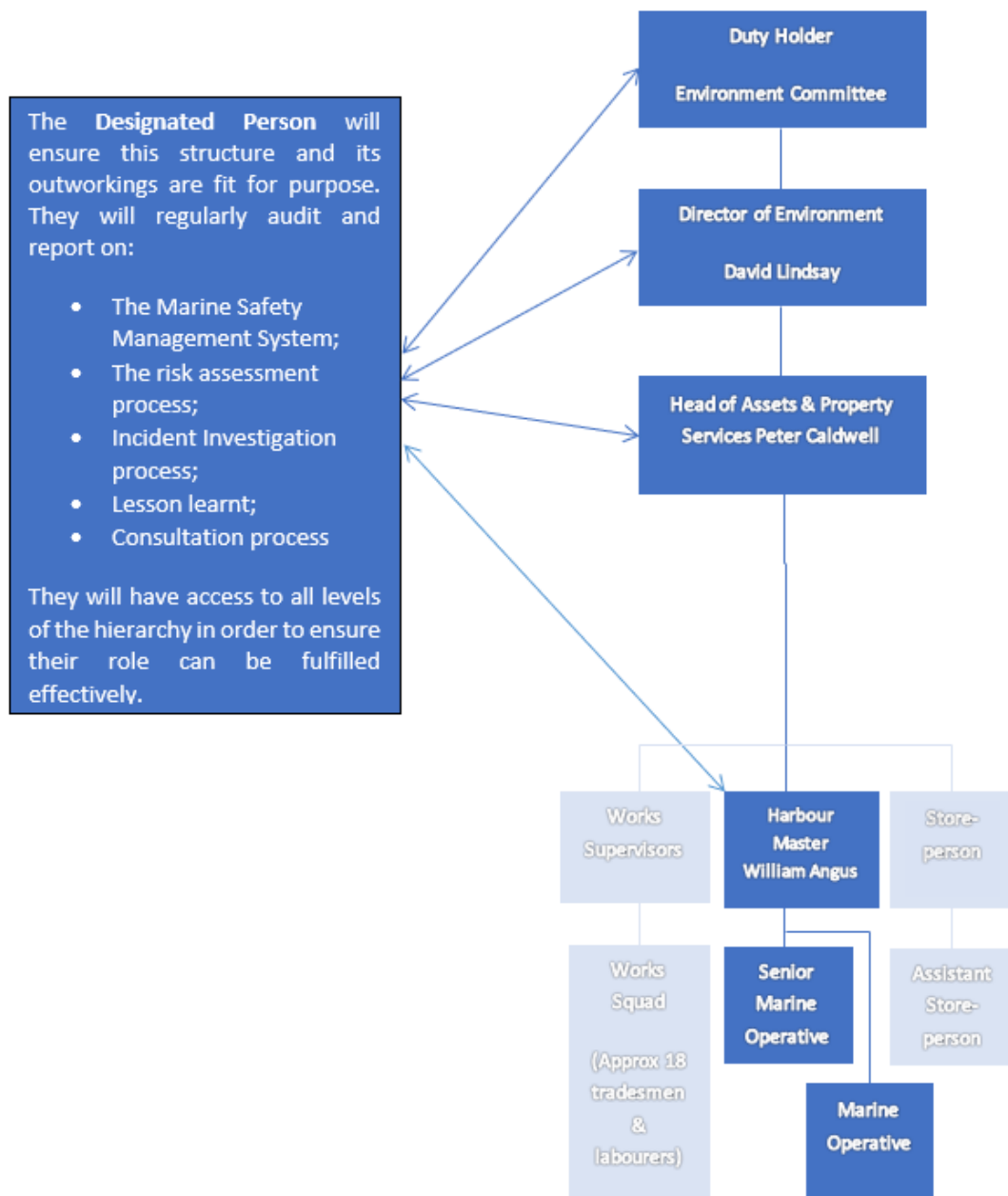


Figure 6 Organogram

4. Audit Detail

The following sections provide the checklist and responses as per the Port Marine Safety Code, Guide to Good Practise 'Aide Memoire'.

4.1 Designated Person

1.1	Who has been appointed DP and when was the appointment
SMS Ref	3.1.5 Designated Person
	The designated person has recently been appointed as Orcades Marine Management Consultants Ltd. SMS should be updated with new DP details.
1.2	Is the DP Role outside of any management function within the Harbour Authority
SMS Ref	3.1.5 Designated Person
	Yes – Third Party Marine Consultants
1.3	Does the DP provide “Independent” assurance about the operation of the Port Marine Safety Management System, how is this undertaken?
SMS Ref	3.1.5 Designated Person
	Bi-annual PMSC Audits.
1.4	Does the DP have direct access to the highest level of authority (Duty Holder)
SMS Ref	3.2 Functional Structure for Harbours Management
	As per structure in above SMS section.
1.5	When did the DP last audit compliance with the Code:
Doc Ref	Ards and North Down Borough Council Port Marine Safety Code Audit 2023
	2024– Kevin Baird.
1.6	Was the audit report formally presented to the governing body at the first opportunity? Provide the minutes when the report was presented to the board:
Doc Ref	240103 EC 3 January
	The last board meeting minutes were sighted. PMSC audit recommendations reviewed during the meeting.
1.7	If so, when
Doc Ref	240103 EC 3 January
	3 rd January 2024
1.8	What port management group meetings does the DP attend
Doc Ref	N/A
	BPA where practical, Scottish Maritime Cluster and other various conferences.
1.9	How closely do the competencies of the DP match the competencies recommended by the GTGP
Doc Ref	N/A
	Competency checks of the newly appointed Designated Person have been reviewed by the Duty Holder and Harbour Master during quotation / procurement process.

4.2 Duty Holders

2.1	Are the Duty Holders clearly identified and published?
SMS Ref	3.2 Functional Structure for Harbours Management
	Duty holder are identified as the environmental committee. <i>Individuals names/job role for clarity should be included in the MSMS.</i>
2.2	Is it stated that they are collectively and individually responsible
SMS Ref	3.1.2 The Duty Holder
	Responsibilities highlighted in the above-mentioned section in the MSMS.
2.3	..and that they cannot assign or delegate their accountability for compliance with the Code on the grounds they do not have particular skills
SMS Ref	3.1.2 The Duty Holder
	<i>Section should include a statement that they cannot assign or delegate their accountability for compliance with the code on the grounds they do not have particular skills</i>
2.4	Are there clear lines of communications from the ports professional staff to the governing body and vice versa
SMS Ref	3.2 Functional Structure for Harbour Management
	Lines of communications defined in structure.
2.5	Are the roles and functions of staff clear and formal
SMS Ref	3.0 Organisation
	Identification and summary of key roles and responsibilities are documented in section 3.0 of the MSMS.
2.6	Has the governing body published their commitment to the code
Doc Ref	Declaration of Conformity
	Friday 1 st December 2023 Port Marine Safety Code – Statement of Compliance Issued.
2.7	Publicly reported their performance against the PMSC on an annual basis?
Doc Ref	5 year safety plan and KPIs
	KPI report published in council meeting minutes, meetings streamed online.
2.8	Published plans and assessments against their performance in meeting the obligations against the code at least once every three years?
Doc Ref	5 year safety plan and KPIs
	As above.
2.9	If so, when
Doc Ref	Half yearly report
	25 th January 2025.
2.10	Is PMSC a standing agenda on board meetings
Doc Ref	240103 EC 3 January
	Board meeting minutes sighted to include PMSC and DP update.

2.11	Is there a standing safety committee meeting. Provide the minutes of the last two safety committee meetings
Doc Ref	Half-yearly Harbours Safety Report
Minutes sighted.	

4.3 Duties and Powers

3.1	Is the legislation, including all local legislation, available and up to date:
SMS Ref	7.1.2 Enforcement
	The MSMS states commitment to compliance and enforcement of legislation including local legislation (a list of relevant legislation should be made available and regularly reviewed)
3.2	When was the legislation last reviewed:
SMS Ref	N/A
	As above
3.3	Does the Harbour Authority have the ability to make General Directions:
SMS Ref	4.1 The legislation Framework of North Down Borough Council
	Yes - The above-mentioned section of the MSMS provides details of the legal framework.
3.4	If so, have General Directions been formally given to regulate marine operations
SMS Ref	4.1 The legislation Framework of Norths Down Borough Council
	Yes
3.5	Has the Harbour Authority made Byelaws:
SMS Ref	4.0 Implementation
	Yes
3.6	If so, when were they last updated
SMS Ref	4.0 Implementation
	2012
3.7	Has a statement been included in the Harbour Authority's plan about their legal duties & power
SMS Ref	4.1 The legislative framework of Ards and North Down Borough Council
	Yes
3.8	Is the jurisdiction of the Harbour Authority clearly defined and known
Doc Ref	MSMS
	Detailed within SMS and provided in above sections of this report.

4.4 Consultation & Information Dissemination

4.1	How does the Harbour Authority formally consult with its employee forum, health and safety committees
SMS Ref	4.5.1 Stakeholder engagement
Methods of communications defined in the above-mentioned section of the MSMS	
4.2	How does the Harbour Authority consult with contractors or related service providers: How are the contractors obliged to conform to the safety requirements of the Ports SMS
SMS Ref	4.5.1 Stakeholder engagement
Site inductions, permit to work, signed statement to have read and understood the MSMS and agree to compliance with any related requirements issued by the Harbour Master.	
4.3	How does the Harbour Authority consult with its stakeholders?
SMS Ref	4.5.1 Stakeholder engagement
Communication methods listed in the MSMS	
4.4	How is information publicly disseminated by the Harbour Authority
SMS Ref	4.5.1 Stakeholder engagement
Communication methods listed in the MSMS	
4.5	Is the current list of local notices or information notes up to date and how are they published?
Ref	Council website/text message
Local notice to mariners are posted on the council website and also a group chat system (information system) is in operation where all berth holders are notified by text message when a notice is issued.	

4.5 Risk Assessment

5.1	Have all routine and non-routine risks associated with marine operations been formally assessed?
Doc Ref	Risk Register for Marine Operations
	A risk register for marine operations has been created, assessed and regularly reviewed (last review 2024)
5.2	Have the environmental consequences to the Safety Management System and consequent risk control measures been assessed and implemented:
SMS Ref	6.9 Environmental Management
	Yes – as documented in the above-mentioned section
5.3	Have past events and accidents/MAIB reports been analysed in preparing the risk assessments:
SMS Ref	4.5.2 Informal / formal briefings
	Harbour Master regularly checks the MAIB for related investigation reports as stated in section 4.5.2.
5.4	Have the risk assessments been completed by competent people
Doc Ref	Risk Register for Marine Operations
	All risk assessments either completed or signed off by the acting Harbour Master.
5.5	Do the risk assessments clearly identify those risks that are not ALARP (as low as reasonably practicable)
Doc Ref	Risk Register for Marine Operations
	As per risk assessment for marine operations.
5.6	Are the risk assessments continuously re-assessed with new hazards and changed risks, properly identified
Doc Ref	Risk register for Marine Operations
	Marine operations risk register regularly reviewed.
5.8	When were the risk assessments last reviewed:
Doc Ref	Risk Register for Marine Operations
	2024
5.9	How does the port help employees understand the risk they will encounter from the risk assessments? How does the port help them dynamically assess each situation on the day
SMS Ref	5.3 Risk Assessment
	By way of regular tool box talks

4.6 Safety Management System

6.	Have the port developed a Safety Management System that
6.1	Defines the Safety Policy
SMS Ref	2.0 Policy
	2.1 Statement of Commitment and Marine Safety Policy
6.2	States the procedure to implement those policy (s)
SMS Ref	ANDBC Marine Safety Management System
	Continual monitoring of with KPIs and objectives.
6.3	Produces instructions and checklist to comply with the procedures
SMS Ref	ANDBC Marine Safety Management System
	Procedure and instructions noted throughout the MSMS.
5.4	Generates accident and incident reports
SMS Ref	5.5 Accident, Incident and Defect reporting
	Yes - Accident reporting system currently being transferred from paper-based system to electronic system. Defect reporting is already active on electronic system Asset HQ which is managed by the council – <i>recommend actioning the transfer to electronic system</i>
5.5	Defines the organisation and personnel roles
SMS Ref	3.1 Identifying Key Roles and Responsibilities
	Yes – as per the above-mentioned Section of the MSMS
5.6	Sets standards and levels of qualifications for various employees and contractors
SMS Ref	3.1 Identifying Key Roles and Responsibilities
	Qualification requirements/responsibilities are defined within the MSMS, ANDBC ensure training is up to date by tracking training on the ANDBC Schedule for all Harbour Employees.
5.7	Develops performance measuring methods
SMS Ref	Appendix 1 Designated Persons Annual Report in Accordance with the Port Marine Safety Code 2016.
	Appendix 1 of the MSMS provides Objectives and KPIs to be recorded and used to measure performance.
5.8	Generates plans and assessments against the ports performance (3 yearly)
Doc Ref	Marine Safety Plan
	A 5 year marine safety plan has been created and implemented.
5.9	Does the SMS deal with preparedness for emergencies
SMS Ref	6.8 Emergency Preparedness and Response
	As per above mentioned MSMS Section, Ards and North Down Borough Council has established emergency response plans and procedure to address specific marine emergency incidents.
5.10	Does the SMS establish a formal procedure for notification of various publications (MAIB reports etc)
SMS Ref	4.5.3 Informal/Formal Briefings
	The Harbour Master regularly checks the MAIB website and relevant reports are subsequently printed off for the next briefing.

5.11	Does the SMS require the provision of aids to navigation to be based on formal risk assessment
SMS Ref	7.2 Aids to Navigation
Additional reference: Risk Register for Marine Operations	
5.12	Does the SMS provide for works in the harbour, especially dredging operations, liable to interfere with navigation
SMS Ref	6.2 Conservancy
There is a 5 year plan in place which includes hydrographic survey, dredging (when required) and structural assessment of the harbours infrastructure.	
5.13	Does the SMS identify safe pilot boarding and disembarkation areas and incorporate the latest statutory requirements and codes of practise
SMS Ref	N/A
N/A	
5.14	Does the SMS cover the use of harbour craft and the provision of moorings
SMS Ref	6.4 Regulation of Harbour Craft and 6.5 Provision of Moorings
Yes	
5.15	Does the SMS govern the use of the power to regulate the mooring of vessels in the harbour
SMS Ref	4.0 Implementation
Powers to regulate mooring of vessels through general directions as per the legislative framework.	
5.16	Does the SMS provide procedures for reporting deficiencies on visiting ships to an appropriate manager including arrangement for deficiencies to be reported to the MCA
SMS Ref	5.5 Accident, Incident and Defect Reporting
Also note the requirement for reporting incidents is highlighted in a flow chart in the Harbour Incident Reporting Form.	
5.17	Who wrote the SMS and when was it last updated /amended
SMS Ref	Distribution List
Document Owner – Peter Caldwell, Head of Assets & Property Services July 2022.	
5.18	Are the employees required to read and sign the SMS
SMS Ref	All
Yes	
5.19	How does port management test that the SMS is working
SMS Ref	Appendix 1
Appendix 1 of the MSMS provides clear objectives and measurable KPIs which are reviewed by the Duty Holder at the bi-annual harbours safety meeting (ITEM 10-Half Yearly Harbours Safety Report)	
5.20	Has the Harbour Authority kept under review their powers and the extent of their jurisdiction
SMS Ref	3.1.4 Harbour Master
Yes – note the responsibility for the Harbour Master to keep under review powers, bye-laws and directions is documented within the MSMS.	

5.21	Are available powers to direct vessels used to ensure the safety of navigation
SMS Ref	7.0 Management of Navigation
	Harbours have the powers to regulate the entry and movement of boats to ensure safety of navigation.
5.22	Is there a policy on enforcement and prosecution
SMS Ref	7.1.2 Enforcement
	Yes
5.23	When was the policy last practised
SMS Ref	7.1.2 Enforcement
	Not recorded
5.24	Has the Harbour Authority ever prosecuted an offender
SMS Ref	7.1.2 Enforcement
	There has not been a requirement for the Harbour Master to Prosecute.
5.25	Are the Harbour Masters powers determined in *byelaws and *Directions
SMS Ref	4.1 The legislative Framework of Ards and North Down Borough Council
	Yes
5.26	Does the Harbour Authority provide a pilotage service
SMS Ref	6.2 Pilotage
	No pilotage services are provided at ANDBC harbours.
5.27	Has the Harbour Authority risk assessed whether and what pilotage service they must provide
Doc Ref	Marine Operations Risk Assessment
	Yes and it has not been found to be necessary at this time.
5.28	Has the Harbour Authority risk assessed to determine whether pilotage should be compulsory
SMS Ref	
	N/A
5.29	If pilotage is compulsory have pilotage directions been issued:
SMS Ref	
	N/A
5.30	Does the SMS address the duty to keep the need for pilotage under review
SMS Ref	6.2 Pilotage
	Yes
5.32	Does the SMS address the authorisation of pilots
SMS Ref	
	N/A
5.33	Does the SMS address the arrangement under which its authorised pilots are engaged direct employment
SMS Ref	
	N/A
5.34	Does the SMS address the approval of pilot launches
SMS Ref	
	N/A

5.35	Does the SMS address the issue of exemption certificates
SMS Ref	
	N/A
5.36	Is there a system in place to ensure pilots are properly rested before duty
SMS Ref	
	N/A
5.37	Is proper time allocated for the development of the pilotage passage plan
SMS Ref	
	N/A
5.38	Has a formal risk assessment been used to identify when more than one pilot would be needed
SMS Ref	
	N/A
5.39	Do pilot boats meet statutory requirements and appropriate codes
SMS Ref	
	N/A
5.40	Does the Harbour Authority have formal procedures for assessing applicants for pilot exemption certificates and issue of subsequent certificates and revalidations
SMS Ref	
	N/A
5.41	Does the Harbour Authority have formal written agreements with Pilot Exemption Certificate holders and their employers to regulate the use of certificates
SMS Ref	
	N/A
5.42	Does the Harbour Authority ensure pilots and PEC holders are appropriately trained and that their authorisation are re-validated every 5 year
SMS Ref	
	N/A
5.43	Does the Harbour Authority formally require the use of passage plans (e.g. in the pilots directions)
SMS Ref	7.0 Management of Navigation
	No
5.44	Do they publish up to date guidance or general passage plans adopted by the port
SMS Ref	N/A
	Charts and entrance positions available in the MSMS or online
5.45	Does the Safety Management System cover the use of harbour craft including tugs and the provision of moorings
SMS Ref	6.4 Regulation of Harbour Craft
	Yes
5.46	Have the risks associated with the use of harbour tugs been formally assessed?
SMS Ref	
	N/A
5.47	Has the harbour authority developed towage guidelines including operations in restricted visibility
SMS Ref	
	N/A
5.48	Have the towage guidelines been reflected in the directions
SMS Ref	

N/A	
5.49	Has the Harbour Authority ensured that harbour craft including tugs are fit for purpose and that the crew are appropriately trained and qualified
SMS Ref	
N/A	
5.50	Has the Harbour Authority ensured that harbour craft including tugs are fit for purpose and that the crew are appropriately trained and qualified.
SMS Ref	
N/A	
5.51	Do all small commercial craft operated by the Harbour Authority possess a valid small commercial vessel certificate
SMS Ref	6.4 Regulation of Harbour Craft
Yes – sighted during audit.	
5.52	What qualifications do the Coxswains have, are they appropriate and in date
Doc Ref	ANDBC Training Schedule for all Harbour Staff
As per training schedule.	

4.7 Conservancy Observations

7.1	Are properly maintained aids to navigation provided
SMS Ref	7.2 Aids to Navigation
All aids to navigation are established and maintained in accordance with the availability criteria laid down by the commissioners of Irish Lights. Defects are reported via the online portal (sighted during audit) for Irish Light.	
7.2	Are aids to navigation subject to periodic review by relevant General Lighthouse Authority (GLA)
SMS Ref	7.2 Aids to Navigation
Yes – Commissioners of Irish Lights.	
7.3	If so, when was the last audit completed by the GLA and what were the findings
SMS Ref	7.2 Aids to Navigation
7.4	Have any changes to navigation aids been advised to the GLA and properly recorded
SMS Ref	7.2 Aids to Navigation
All aids to navigation are established and maintained in accordance with the availability criteria laid down by the commissioners of Irish Lights. Defects are reported via the online portal (sighted during audit) for Irish Light.	
7.5	Are hydrographic surveys completed, in accordance with any risk assessments, if so when was the last?
SMS Ref	6.1 Conservancy
Hydrographic surveys were carried out in 2016 and 2023	
7.6	Are the results of the surveys assessed and actioned properly
SMS Ref	6.1 Conservancy
Dredging is carried out when a survey identifies a 20% reduction in the published harbour depths.	
7.7	Are the results published and disseminated to stakeholders
SMS Ref	6.1 Conservancy
Hydrographic survey data is published on the council website	

4.8 Directions

8.1	Does the Harbour Authority have a procedure of how General Directions should be given
SMS Ref	4.0 Implementation
The above-mentioned section provides details for general directions.	
8.2	Does the Harbour Authority have a procedure of how a Special Direction should be given
SMS Ref	4.0 Implementation
The above-mentioned section provides details for special directions.	

4.9 Training

9.1	Does the Harbour Authority have a stated training policy
SMS Ref	9. National Occupational Standard/Training
Yes	
9.2	Is there a training programme
Doc Ref	ANDBC Training Schedule for all Harbour Employees
Yes	
9.3	Are training records maintained
SMS Ref	ANDBC Training Schedule for all Harbour Employees
Yes	
9.4	Do persons appointed to positions with responsibility for the safety of marine operations possess appropriate competencies, for example, DP, Harbour Master, Assistant Harbour Master, Marine Operatives, Pilots, Pilot boat crew, VTS Operator, Tug skippers and crews
SMS Ref	9. National Occupational Standard/Training
Competencies are defined in job descriptions, roles and responsibilities in the MSMS and training schedule for all harbour employees.	

4.10 Vessel Traffic Services

10.1	Has the need to VTS been identified by risk assessment
Doc Ref	Risk Register for Marine Operations
	Marine Operations have been thoroughly risk assessed with no requirement for VTS identified.
10.2	Does the Harbour Authority provide VTS or information service, navigational service, traffic organisation service, local port services (LPS)
SMS Ref	
	N/A
10.3	If VTS is considered excessive or inappropriate by the Harbour Authority is other "Port Information" provided, describe that port information
Doc Ref	N/A
	Port information is provided through visit my harbour websites, council website and a text messaging service to all berth holders.
10.4	When was the VTS or provision of port information last audited and reviewed
SMS Ref	
	N/A
10.5	During this audit and review was the effectiveness of the equipment, manning and procedures evaluated
SMS Ref	
	N/A
10.6	Have all VTS or Port Information personnel been appropriately trained
SMS Ref	
	N/A

4.11 Published Documents

	Has the Harbour Authority published;
11.1	Its Safety Management System
SMS Ref	ANDBC_Safety Management System_IssueV
	Yes
11.2	A clear commitment to comply with the code
Doc Ref	Declaration of Compliance
	Issued 1 st December 2023
11.3	A safety plan for marine operations
SMS Ref	Harbours 5 Year Safety Plan
	2024-2028 inclusive
11.4	An assessment of performance against the safety plan
SMS Ref	Appendix 1
	KPIs and Objectives are maintained as per Appendix 1 of the MSMS.
11.5	A safety policy for marine operations
SMS Ref	2.2 Marine Safety Policy
	<i>Recommend Review to ensure relevance, last review 2018.</i>

5. Final Checks

12.1	Is the Harbour Authority aware of their existing powers and duties	X
12.2	Appoint someone as an 'independent 'DP' with direct access to the board	X
12.3	Develop an effective marine safety management system, which employs formal risk assessment techniques	X
12.4	Employ people who are competent and qualified for the positions they hold	X
12.5	Publish a comprehensive safety plan, along with regular assessment showing the authorities performance measured against the code	X

Unclassified

260

ITEM 9**Ards and North Down Borough Council**

Report Classification	Unclassified
Exemption Reason	Not Applicable
Council/Committee	Environment Committee
Date of Meeting	02 April 2025
Responsible Director	Director of Environment
Responsible Head of Service	Interim Head of Regulatory Services
Date of Report	28 January 2025
File Reference	BC1 / 91000
Legislation	
Section 75 Compliant	Yes <input type="checkbox"/> No <input type="checkbox"/> Other <input type="checkbox"/> If other, please add comment below:
Subject	Q3 Building Control Activity Report (Oct – Dec 2024)
Attachments	None

1.0 Introduction

The information provided in this report covers, unless otherwise stated, the period 1 October 2024 to 31 December 2024. The aim of the report is to provide Members with details of some of the key activities of Building Control, the range of services it provides along with details of level of performance. This report format has been introduced across Regulatory Services.

2.0 Applications

Full Plan applications are made to Building Control for building works to any commercial building, or for larger schemes in relation to residential dwellings.

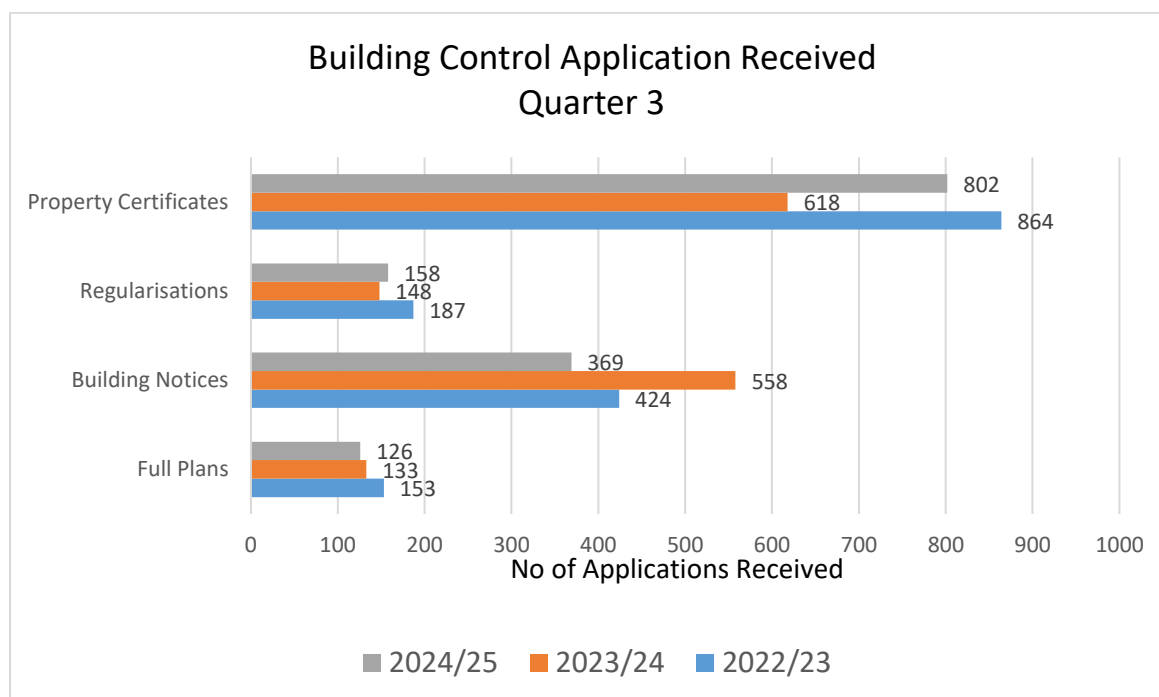
Building Notice applications are submitted for minor alternations such as internal wall removal, installation of heating boilers or systems, installation of all types of insulation and must be made before work commences. These applications are for residential properties only.

Not Applicable

Regularisation applications consider all works carried out illegally without a previous Building Control application in both commercial and residential properties. A regularisation application considers all types of work retrospectively and under the Building Regulations in force at the time the works were carried out.

Property Certificate applications are essential to the conveyancing process in the sale of any property, residential or commercial, and provide information on Building Control history and Council held data.

QUARTER 3	Period of Report 01/10/2024 – 31/12/2024	01/10/2023-31/12/2023	01/10/2022 – 31/12/2022
Full Plan Applications	126	133	153
Building Notice Applications	369	558	424
Regularisation Applications	158	148	187
Property Certificate Applications	802	618	864





The number of Full Plan applications received is very much determined by the economic climate, any changes in bank lending or uncertainty in the marketplace may cause a reduction in Full Plan applications. There are limited internal means to control the number of applications received.

3.0 Regulatory Full Plan Turnaround Times

Not Applicable

Turnaround times for full plan applications are measured in calendar days from the day of receipt within the Council, to the day of posting (inclusive).

Inspections must be carried out on the day requested due to commercial pressures on the developer/builder/householder, and as such any pressures on that end of the business reflects on the turnaround of plans timescale.

QUARTER 3	Period of Report 01/10/2024 – 31/12/2024	Same quarter last year	Comparison	Average number of days to turnaround plan
Domestic Full Plan Turnarounds within target (21 calendar days)	77%	55%		17
Non-Domestic Full Plan Turnarounds within target (35 calendar days)	85%	75%		24

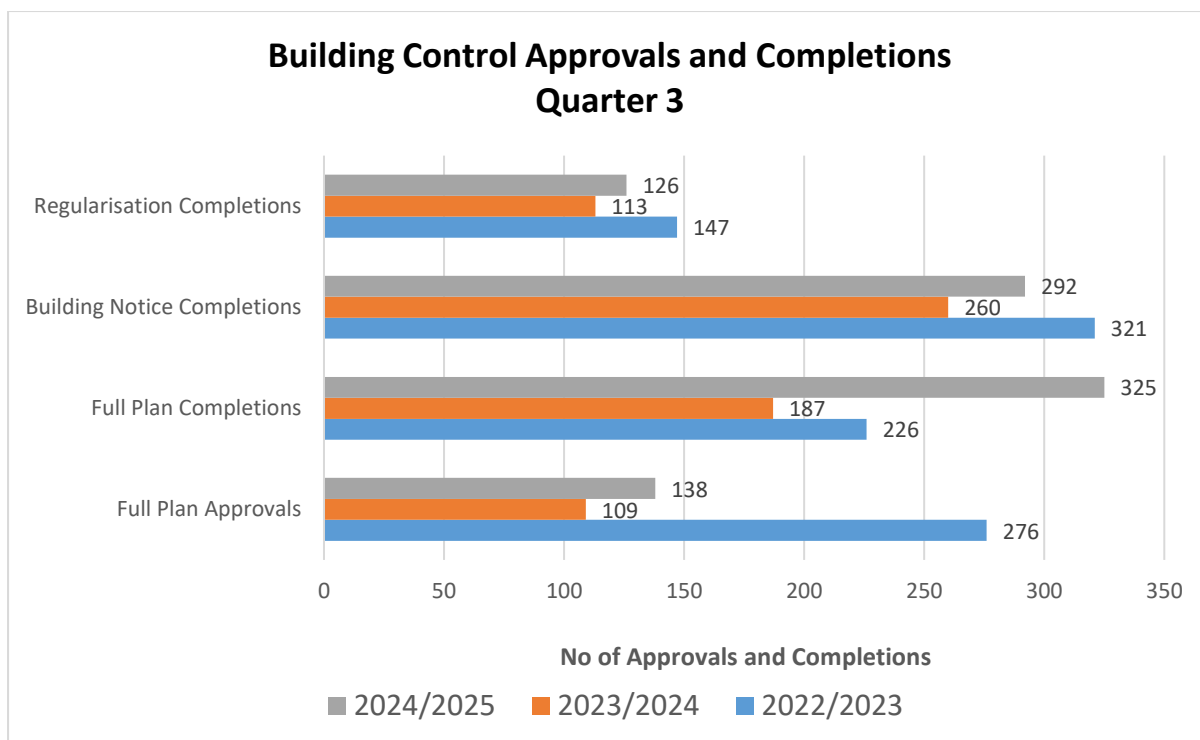
4.0 Regulatory Approvals and Completions

The issuing of Building Control Completion Certificates indicate that works are carried out to a satisfactory level and meet the current Building Regulations.

Building Control Full Plan Approval indicates that the information and drawings submitted as part of an application meet current Building Regulations and works can commence on site.

QUARTER 3	Period of Report 01/10/2024 – 31/12/2024	01/10/2023 – 31/12/2023	01/10/2022 – 31/12/2022
Full Plan Approvals	138	109	276
Full Plan Completions	325	187	226
Building Notice Completions	292	260	321
Regularisation Completions	126	113	147

Not Applicable

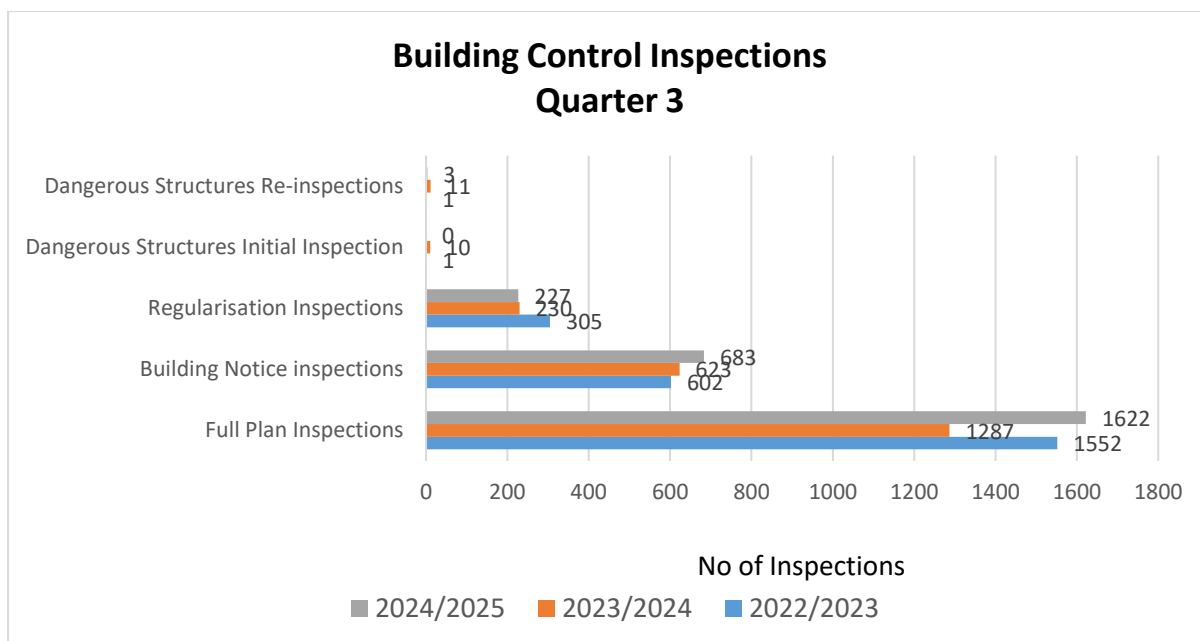


5.0 Inspections

Under the Building Regulations applicants are required to give notice at specific points in the building process to allow inspections. The inspections are used to determine compliance and to all for improvement or enforcement.

QUARTER 3	Period of Report 01/10/2024 - 31/12/2024	01/10/2023 – 31/12/2023	01/10/2022 – 31/12/2022
Full Plan Inspections	1622	1287	1552
Building Notice Inspections	683	623	602
Regularisation Inspections	227	230	305
Dangerous structures initial inspection	0	10	1
Dangerous structure re-inspections	3	11	1
Total inspections	2535	2158	2461

Not Applicable

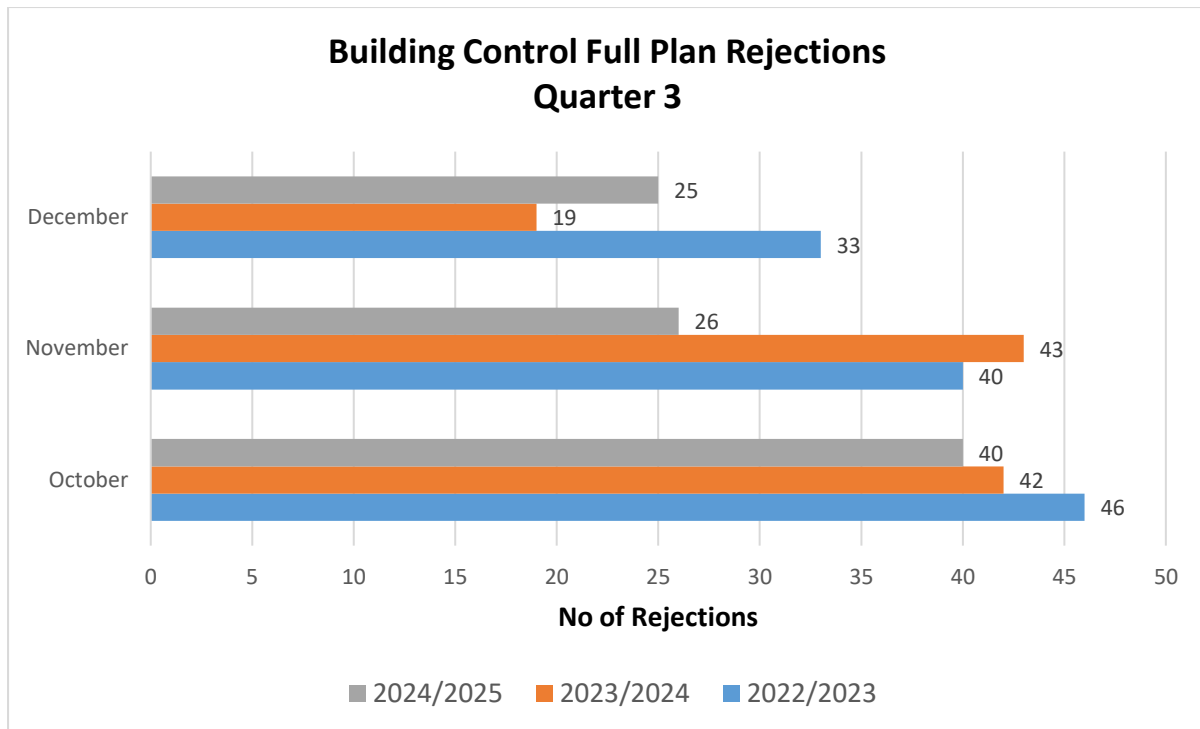


6.0 Non-Compliance

Where it is not possible to Approve full plan applications they are required to be rejected. Building Control Full Plan Rejection Notices indicate that after assessment there are aspects of the drawings provided that do not meet current Building Regulations. A Building Control Rejection Notice sets out the changes or aspects of the drawings provided that need to be amended. After these amendments are completed, the amended drawings should be submitted to Building Control for further assessment and approval.

QUARTER 3	Period of Report 01/10/2024 – 31/12/2024	01/10/2023 – 31/12/2023	01/10/2022 – 31/12/2022
Full Plan Rejection Notice	91	104	119
Dangerous Structure Recommended for legal action	0	0	0
Court Cases	0	0	0
Other	0	0	0

Not Applicable



RECOMMENDATION

It is recommended that the Council notes this report.