Welsh Government

Development of Indicators

For Monitoring and Reporting of the Welsh National Marine Plan March 2020



Innovative Thinking - Sustainable Solutions



Page intentionally left blank

Development of Indicators

For Monitoring and Reporting of the Welsh National Marine Plan March 2020



Document Information

Document History and Authorisation

Title	Development of Indicators
Subtitle	For Monitoring and Reporting of the Welsh National Marine Plan
Commissioned by	Welsh Government
Issue date	March 2020
Document ref	R.3357
Project no	R/4820/1

Date	Version	Revision Details
24/01/2020	1	Initial draft issued for client review
14/02/2020	2	Issued for client review
13/03/2020	3	Issued for client use

Prepared (PM)	Approved (QM)	Authorised (PD)
Elena San Martin	Natalie Frost	Stephen Hull

Suggested Citation

ABPmer, (2020). Development of Indicators, For Monitoring and Reporting of the Welsh National Marine Plan, ABPmer Report No. R.3357. A report produced by ABPmer for Welsh Government, March 2020.

Notice

ABP Marine Environmental Research Ltd ("ABPmer") has prepared this document in accordance with the client's instructions, for the client's sole purpose and use. No third party may rely upon this document without the prior and express written agreement of ABPmer. ABPmer does not accept liability to any person other than the client. If the client discloses this document to a third party, it shall make them aware that ABPmer shall not be liable to them in relation to this document. The client shall indemnify ABPmer in the event that ABPmer suffers any loss or damage as a result of the client's failure to comply with this requirement.

Sections of this document may rely on information supplied by or drawn from third party Unless otherwise expressly stated in this document, ABPmer has not independently checked or verified such information. ABPmer does not accept liability for any loss or damage suffered by any person, including the client, as a result of any error or inaccuracy in any third party information or for any conclusions drawn by ABPmer which are based on such information.

All content in this document should be considered provisional and should not be relied upon until a final version marked 'issued for client use' is issued.

All images on front cover copyright ABPmer apart from seahorse (A J Pearson).

ABPmer

Quayside Suite, Medina Chambers, Town Quay, Southampton, Hampshire **SO14** 2AQ

T: +44 (0) 2380 711844 W: http://www.abpmer.co.uk/

Contents

1	Introdu	uction1
	1.1	The Welsh National Marine Plan1
	1.2	Requirement for monitoring and reporting1
	1.3	WNMP monitoring and reporting framework2
	1.4	Aims of this study4
2	Metho	dology5
	2.1	Logic model5
	2.2	Development of possible indicators8
3	Propos	sed Indicators13
4	Refere	ences15
5	Abbre	viations/Acronyms17
Appen	dices	
Α	WNMF	P Indicator Framework Tables
В	Headli	ne Indicator Table
С	Indicat	tor Cards
D	Propos	sed Methodology for Indicator 4: Welsh Marine GVA
	D.1	Aggregates
	D.2	Energy (Low Carbon)
	D.3	Tourism and Recreation
Figures	8	
Figure	1.	WNMP monitoring and reporting process2
Figure	2.	Logic Model for Development of WNMP Indicators7

Tables		
Table 1.	Proposed WNMP Headline Indicators	10
Table A1.	WNMP Objective 1	20
Table A2.	WNMP Objective 2	22
Table A3.	WNMP Objective 3	24
Table A4.	WNMP Objective 4	26
Table A5.	WNMP Objective 5	28
Table A6.	WNMP Objective 6	30
Table A7.	WNMP Objective 7	32
Table A8.	WNMP Objective 8	34
Table A9.	WNMP Objective 9	36
Table A10.	WNMP Objective 10	38
Table A11.	WNMP Objective 11	40
Table A12.	WNMP Objective 12	42
Table A13.	WNMP Objective 13	43
Table B1.	Headline indicator table	44
Table C1.	Indicator 1	75
Table C2.	Indicator 2	79
Table C3.	Indicator 3	82
Table C4.	Indicator 4	84
Table C5.	Indicator 5	86
Table C6.	Indicator 6	89
Table C7.	Indicator 7	91
Table C8.	Indicator 8	93
Table C9.	Indicator 9	95
Table C10.	Indicator 10	97
Table C12.	Indicator 11	99

Table C13.	Indicator 12	101
Table C14.	Indicator 13	102
Table C15.	Indicator 14	103
Table C16.	Indicator 15	104
Table C17.	Indicator 16	106
Table C18.	Indicator 17	107
Table C19.	Indicator 18	108
Table C20.	Indicator 19	109
Table C21.	Indicator 20	111
Table C22.	Indicator 21	112
Table C23.	Indicator 22	113
Table C24.	Indicator 23	114
Table C25.	Indicator 24	116
Table C26.	Indicator 25	117
Table D1.	Coastally Linked Local Authority Areas	119
Table D2.	Sector Specific Employment and GVA calculations	122

1 Introduction

1.1 The Welsh National Marine Plan

The Welsh National Marine Plan (WNMP) is the first marine plan for Wales and represents the start of a planning process of shaping Welsh seas to support economic, social and environmental objectives. Its purpose is to guide the sustainable development of the Welsh marine area by setting out how proposals for use will be considered by decision-makers.

The WNMP has been prepared in accordance with the Marine Policy Statement (Defra, 2011) adopted under the Marine and Coastal Access Act 2009 (MCAA) and reflects the principles of the Well-being of Future Generations (Wales) Act 2015 and Environment (Wales) Act 2016. The policies in the WNMP will also support achievement of Good Environmental Status as defined by the 11 descriptors of GES in the UK Marine Strategy as well as other statutory and policy objectives. The plan was adopted in November 2019.

1.2 Requirement for monitoring and reporting

Monitoring provides crucial feedback within the cyclical process of sustainable, evidence-based policy-making. It connects the objectives of a plan to the evidence base and subsequent implementation of plan policies. Specifically, Section 61 of the Marine and Coastal Access Act (MCAA) sets a legal requirement to monitor and report (at least every three years) on the implementation of marine plans including:

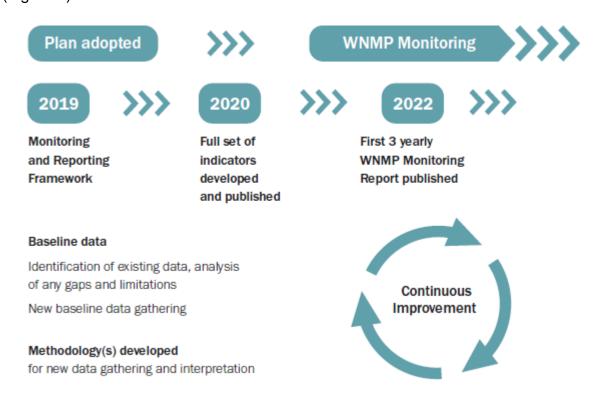
- The marine plan's contribution to meeting the High Level Marine Objectives (HLMOs) in the UK Marine Policy Statement (MPS);
- Progress being made towards securing plan objectives;
- The effects of the policies in the marine plan; and
- The effectiveness of plan policies in securing the plan objectives.

The MCAA also requires marine planning authorities to consider the need to amend marine plans every six years from the date of introduction. Monitoring and review will therefore allow the Welsh Government to determine the impact and effectiveness of the WNMP, ensure the policies are fit for purpose and whether amendments are required to help address any issues that have arisen.

In addition, the Environmental Assessment of Plans and Programmes (Wales) Regulations 2004 specifically require monitoring of the significant effects of implementing the WNMP, including unforeseen adverse environmental effects. Welsh Government have undertaken a joint Sustainability Appraisal (SA) / Strategic Environmental Assessment (SEA) process for the WNMP and produced an SA report that integrates the requirements of the 2004 Regulations, including recommendations for monitoring indicators.

1.3 WNMP monitoring and reporting framework

Welsh Government has developed a Monitoring and Reporting Framework (MRF) document (Welsh Government, 2020) that outlines the strategic approach that it wishes to follow to develop indicators for monitoring implementation of the WNMP (Figure 1).



From Welsh Government, 2020

Figure 1. WNMP monitoring and reporting process

The approach to monitoring and reporting will integrate requirements across legislative drivers, incorporating:

- Marine Plan / decision making monitoring: identification and monitoring of indicators that will assess the effectiveness of the WNMP as an enabler in the achievement of its objectives
- Objective / Policy monitoring: assessing the real-world outcomes (effects) to which policies under a number of objectives contribute
- Sustainability monitoring: related to the SA Report and integrated SEA process, assessing whether plan policies are having a positive or negative effect on sustainability.

In developing the MRF, Welsh Government have:

 Considered the approaches of the reviews of UK marine plans that have been published to date as well as more recent advice commissioned by the MMO;

- Engaged with key decision makers and other stakeholders through the Marine Planning Stakeholder Reference and Decision Makers groups and public consultation on the WNMP; and
- Drawn on existing guidance for the terrestrial planning system in Wales.

1.4 Aims of this study

ABPmer has been commissioned by Welsh Government to develop and recommend a full set of proposed indicators for monitoring and reporting of the WNMP. These proposed indicators cover the 3 categories above (Marine Plan / decision making monitoring, objective / policy monitoring and sustainability monitoring), using the approach set out in the MRF.

The possible indicators that are proposed by ABPmer will be further refined and developed by Welsh Government before being finalised as actual indicators. Welsh Government intends to use these proposed indicators to frame its discussions around the final set of indicators both internally and with its stakeholders. Welsh Government is particularly keen that the indicators add value where possible in terms of providing information that can help in the refinement of WNMP policies in future reviews of the plan, as well as identify evidence gaps, guidance/training needs or any required changes in process.

The WNMP is the first marine plan for Wales and it is important to acknowledge that it may take some time for official statistics to be refined and developed to meet what ideally would be required to monitor the implementation of the WNMP. This study has therefore identified any limitations and constraints associated with available statistics and has made some recommendations on how these might be further developed to meet the needs for monitoring the WNMP.

2 Methodology

The MRF illustrates how indicators might be developed relating to WNMP objectives and policies within the context of a logic model.

The proposed approach to monitoring and reporting is intended to integrate requirements across legislative drivers, incorporating:

- Marine Plan / decision making monitoring: identification and monitoring of indicators that will assess the effectiveness of the WNMP as an enabler in the achievement of its objectives;
- Objective / Policy monitoring: assessing the real-world outcomes (effects) to which policies under a number of objectives contribute; and
- Sustainability monitoring: related to the Sustainability Appraisal (SA) Report and integrated Strategic Environmental Assessment (SEA) process, assessing whether plan policies are having a positive or negative effect on sustainability.

This work has been used as a starting point for developing recommendations for monitoring indicators.

2.1 Logic model

In order to provide a robust underpinning for potential indicators, the underlying logic model used in the MRF has been more explicitly defined (Figure 2). The concept of the logic model is based on Magenta Book guidance (HM Treasury, 2011) and a previous review undertaken for English marine plans (MMO, 2016a) which promote the use of logic models as a route to establish an overall theory-driven framework for evaluation. The aim of the logic model is to describe the causal pathways linking policy inputs, activities and effects and to explain how the linkages work – so that it represents the causal theory.

The logic model has five key components:

- The WNMP objectives and policies;
- Activities actions that are taken by the plan maker, decision-makers or wider stakeholders to implement the plan;
- Outputs the outputs from the activities;
- Intermediate Outcomes the immediate outcomes of the activities and outputs;
 and
- Outcomes the final outcomes resulting from previous steps in the logic model.

Monitoring of the WNMP can be undertaken at any point in the logic model. Monitoring of activities/actions can provide clear evidence that work is being progressed to support plan implementation while monitoring of outputs can indicate how the plan is

being used in decision-making. Monitoring of intermediate outcomes can demonstrate whether decisions being made are taking account of the plan while monitoring of final outcomes can indicate whether plan objectives and policies are making real world differences.

As with many other types of plan, it is easier to make clear linkages between the plan and activities/outputs. However, when considering the impact of the plan on outcomes, other factors, such as other policies and plans may be as or more important in influencing the desired outcomes and therefore it can be difficult to attribute the contribution of marine plan objectives and policies to the achievement of desired outcomes. The purpose of the indicators is to monitor progress both in relation to the WNMP objectives and policies. Hence, despite the weaker linkages between the policies and some of the outcomes that the objectives are aiming to achieve, it is important to consider what progress is being made towards achieving the objectives.

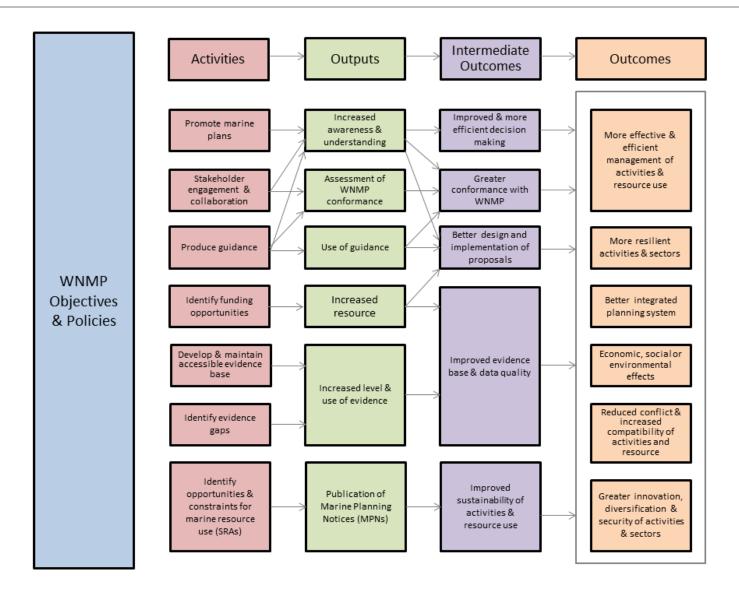


Figure 2. Logic Model for Development of WNMP Indicators

In developing monitoring proposals, it is therefore helpful to include monitoring indicators at different points in the logic chain in order to better understand the effects of WNMP policies and objectives, whilst acknowledging the particular constraints and limitations of each type of indicator.

Although the logic model suggests that the relationship between these key components is linear and in one-direction, in practice the process is often iterative and there are interdependencies between the various components. This can result in feedback loops along the different stages of the logic model. It is also recognised that intermediate outcomes may not always take place, with activities and outputs directly resulting in final outcomes. This logic model should therefore not be applied in a prescriptive manner. Despite this it is considered an appropriate tool for the purposes of understanding the key processes involved in the application of the WNMP and in turn support the identification of potential indicators. The model could be further expanded and developed to include more steps and feedback loops, although this is not considered necessary for the purposes of this study.

2.2 Development of possible indicators

To develop initial proposals for possible indicators, the logic model has been applied to each of the WNMP objectives to create a series of tables identifying the following key components of the logic model for each objective:

- The relevant plan policies (based on Table 2 of the MRF);
- The activities required to support the objective;
- The outputs from those activities;
- Intermediate outcomes arising from the activities and outputs; and
- The resulting 'real world' outcomes.

Potential opportunities for indicators were then identified within these tables. This resulted in a total of 78 possible indicators across the 13 objectives (see Appendix A).

A number of the possible indicators were common across multiple objectives and across different marine activities. The indicators were therefore subsequently grouped to create 25 possible headline indicators (Table 1 and Appendix B). A further indicator was also considered to address the SA criteria that were assessed as being significantly impacted by a particular plan policy in the SA, however, was subsequently discarded on the basis that it was not sufficiently specific or easily measurable (proposed indicator 26, see Table 1).

For each possible indicator, an indicator card has been prepared containing the following information:

- Indicator number/sub-indicator reference;
- Indicator name;

- Relevant WNMP objectives;
- Relevant WNMP policies;
- Indicator type activity, output, intermediate outcome, outcome;
- Indicator category decision-making/policy/sustainability appraisal;
- Description a brief description of the indicator;
- Proposed target a specific target against which progress can be measured;
- Rationale the underpinning rationale for the indicator;
- Sources of data the sources of data on which the indicator will draw;
- Methodology the methodology for calculating the indicator; and
- Assumptions and uncertainties a brief description of the main assumptions and uncertainties associated with the indicator.

Table 1. Proposed WNMP Headline Indicators

No.	Proposed Indicator Name	Relevant WNMP Objective	Indicator Type	Indicator Category
1	Supplementary plan guidance available	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Activity	Policy
2	Effective application of policy	1, 4, 6, 7, 8, 9, 10, 11, 12	Intermediate outcome	Plan-led decision-making
3	Stakeholder views via user survey	1, 3, 4, 5, 6, 8, 9, 10, 11, 13	Intermediate outcome	Policy
4	Welsh marine GVA	2, 3, 5, 7	Outcome	Policy/ Sustainability Appraisal
5	Welsh marine employment	2, 3	Outcome	Policy
6	Available evidence base	4, 5, 7, 10, 13	Activity	Policy
7	Climate change and/or marine biodiversity public funding applications citing WNMP	8, 10	Activity	Policy
8	Data use	7, 8	Output	Plan-led decision-making
9	Marine renewable energy funding applications citing WNMP	3	Activity	Policy
10	SRAs defined	4	Activity	Policy
11	Tourism and recreation funding applications citing WNMP	5	Activity	Policy/ Sustainability Appraisal

No.	Proposed Indicator Name	Relevant WNMP Objective	Indicator Type	Indicator Category
12	Increase in coastal and tourism businesses	5	Outcome	Policy/ Sustainability Appraisal
13	Increased participation	5	Outcome	Policy/ Sustainability Appraisal
14	Effective implementation of SRA	7	Intermediate Outcome	Plan-led decision-making
15	Recreational use of the marine environment	7	Outcome	Policy
16	Historic Asset Condition	7	Outcome	Policy/ Sustainability Appraisal
17	Numbers of renewable energy proposals	8	Output	Plan-led decision-making
18	Conformance with SMP policies	8	Intermediate outcome	Plan-led decision-making/ Sustainability Appraisal
19	Cost of coastal flooding	8	Outcome	Policy
20	INNS distribution	9	Intermediate Outcome	Policy
21	Marine Litter	9	Intermediate Outcome	Policy
22	GES determination	9	Outcome	Policy/ Sustainability Appraisal

No.	Proposed Indicator Name	Relevant WNMP Objective	Indicator Type	Indicator Category
23	Number of restoration/enhancement projects	10	Output	Policy/ Sustainability Appraisal
24	Designated site condition assessments	11	Intermediate Outcome	Policy/ Sustainability Appraisal
25	Marine Evidence Strategy	13	Output	Policy
26	Significant negative effect on SA criteria	2	Outcome	Sustainability Appraisal
26	Significant negative effect on SA Criteria	3	Outcome	Sustainability Appraisal
26	Significant positive effect on SA criteria	4	Outcome	Sustainability Appraisal

3 Proposed Indicators

The individual indicator cards for each possible indicator is provided in Appendix C. The 26 proposed indicators provide a balanced representation of all the different points in the logic chain. In total, there are 7 'activity' indicators, 4 'output' indicators, 7 'intermediate outcome' indicators and 8 'outcome' indicators. It should be noted that these proposed indicators are suggestions that have been made by ABPmer and will be further refined and developed by Welsh Government in consultation with stakeholders before being finalised as actual indicators.

In terms of next steps, Welsh Government will need to assess the feasibility of the proposed indicators. This will involve confirming the availability of suitable data and ensuring the assumptions that have been identified are acceptable. Depending on the evidence that is available at the time of reporting on the indicators, it is recognised that some of the proposed indicators may involve more of a narrative or qualitative approach in their reporting in the first instance. Instances where a more narrative style for reporting on indicators is likely to be initially applicable have been highlighted in the report cards where appropriate.

Contextual information on the possible external factors that are beyond Welsh Government's control and could influence the outcome and interpretation of the indicator monitoring have been identified in the report cards where relevant. For a number of the indicators, it can be particularly difficult to attribute the contribution of marine plan objectives and policies to the achievement of desired outcomes. This is the case for proposed indicator 4 (Welsh Marine GVA) and proposed indicator 5 (Welsh marine employment). It is, therefore, suggested that these proposed indicators are treated as 'contextual' indicators so that they are still monitored to determine the context in which the WNMP is operating and seeking to influence.

It is recognised that there are a number of challenges in monitoring proposed indicator 4 (Welsh Marine GVA) and proposed indicator 5 (Welsh marine employment). A more detailed proposed methodology for preparing consistent marine sector GVA and employment data for reporting this indicator has been developed and is provided in Appendix D. This builds on previous work, including various projects that have been completed for the Marine Management Organisation (MMO) (MMO, 2014 and 2016b), for the Marine Strategy Framework Directive (MSFD) (Defra, 2019), and for industry (e.g. Mineral Products Association, 2018; Seabed User and Developer Group, 2019).

A number of the proposed indicators relate to defining Strategic Resource Areas (SRAs) (specifically proposed indicators 10 and 15). The WNMP suggests that priorities are for SRAs to be developed for aggregates, tidal stream energy and wave energy sectors and that further SRAs may be developed for, but not necessarily restricted to, offshore wind, aquaculture and tidal lagoon sectors. Welsh Government is currently determining if there is a case for proceeding with the development of SRAs for the wave energy, tidal stream energy, aquaculture and aggregate sector. It is not possible to be certain at this point if any SRAs will be put forward in the first three years of the WNMP. It is therefore recommended that Welsh Government consider

the implementation of the proposed indicators for defining SRAs if and when these are taken forward.

The proposed indicators that relate to whether plan policies are having a positive or negative effect on sustainability in line with the SA for the WNMP have been identified. These are highlighted where relevant as sustainability indicators under indicator category in Table 1, Appendix B and Appendix C.

4 References

DCLG (2014), Mineral Extraction in Great Britain 2014, A publication based on the Annual Minerals Raised Inquiry, carried out by ONS for the Department for Communities and Local Government and the Department for Business, Innovation & Skills. ISBN: 978-1-4098-4786-1

Defra (2011). UK Marine Policy Statement. Available online at: https://www.gov.uk/government/publications/uk-marine-policy-statement

Defra (2019). Marine Strategy Part One: UK Updated Assessment and Good Environmental Status. Available online at: https://consult.defra.gov.uk/marine/updated-uk-marine-strategy-part-one/

HM Treasury (2011). The Magenta Book. Guidance for evaluation. Available online at https://www.gov.uk/government/publications/the-magenta-book

Mineral Products Association (MPA) (2018) BMAPA Sustainable Development Report 2018.

MMO (2014) Exploring the Potential of Using Office for National Statistics (ONS) Data for Marine Planning. A report produced for the Marine Management Organisation, MMO Project No: MMO1075.

MMO (2016a). Review of the Marine Planning Monitoring and Evaluation Framework and Development of Baselines. A report produced for the Marine Management Organisation, pp 86. MMO Project No: 1087. ISBN: 978-1-909452-89-3.

MMO (2016b). Economic baseline assessment for the North East, North West, South East and South West marine plans. A report produced for the Marine Management Organisation, MMO Project No: MMO1119

NRW and Welsh Government (2019). Welsh Marine Evidence Strategy 2019-2025 A collaborative agenda for marine research, monitoring and analysis. Available online at: https://gov.wales/sites/default/files/publications/2019-09/welsh-marine-evidence-strategy_0.pdf

Seabed User and Developer Group (2019). Socio-economic benefit of marine industries. Available online at: http://www.sudg.org.uk/sudg-socio-economic-report-on-marine-industries/

Welsh Government (2019) Energy Generation in Wales 2018. Written and produced by Regen for the Welsh Government, ISBN 978-1-83933-191-6.

Welsh Government (2020). Monitoring and Reporting Framework: Welsh National Marine Plan, January 2020. Available online at: https://gov.wales/welsh-national-marine-plan-monitoring-and-reporting-framework

Websites

http://lle.gov.wales/apps/marineportal/

https://data.gov.uk/dataset/02947eb6-46ea-4418-8500-68b9c425914b/gb-day-visits-survey

https://data.gov.uk/dataset/46cfe314-7814-4331-a48b-06e96238e3fa/gb-tourism-survey

https://naturalresources.wales/

https://naturalresources.wales/evidence-and-data/

https://publicregister.naturalresources.wales/

https://statswales.gov.wales/Catalogue/Environment-and-Countryside/Energy https://www.nomisweb.co.uk/

5 Abbreviations/Acronyms

AGG Aggregates AQU Aquaculture

BMAPA British Marine Aggregate Producers Association

CAB Subsea Cabling
CADW Welsh Government
D&D Dredging and Disposal

DCLG Department for Communities and Local Government

DEF Defence

ECON Economy????

ELC Energy – Low Carbon

ENV Environment

ERDF European Regional Development Fund

EU European Union

FIS Fisheries
GB Great Britain

GDP Gross domestic product

GEN General

GeS Good Ecological Status
GES Good Environmental Status

GOV Government

GVA Gross Value Added

HLMO High Level Marine Objectives

HM Her Majesty's

INNS Invasive Non-Native Species

IP Internet Protocol
LA Local Authorities
LC Energy

LLE Geo-Portal for Wales (Welsh Government and Natural Resources

Wales)

MCAA Marine and Coastal Access Act MMO Marine Management Organisation

MPA Marine protected Area
MPN Marine Plan Notice
MPS Marine Policy Statement
MR Managed Realignment

MRF Monitoring and Reporting Framework MSFD Marine Strategy Framework Directive

N/A Not Applicable

NAI No Active Intervention NRW Natural Resources Wales

O&G Oil and Gas

OESEA Offshore Energy Strategic Environment Assessment

ONS Office for National Statistics

ORML Offshore Renewable Marine Licence

P&S Ports and Shipping PINS Planning Inspectorate

RCAHMW Royal Commission on the Ancient and Historical Monuments of Wales

SA Sustainability Appraisal

SAF Safeguarding

SCI Science

SEA Strategic Environmental Assessment SIC Standard Industrial Classification

SMNR Sustainable Management of Natural Resources

SMP Shoreline Management Plan

SOC Society

SRA Strategic Resource Areas SWW Surface Water & Wastewater

T&R Tourism and recreation
TBC To Be Confirmed
TCE The Crown Estate

UK United Kingdom

WEFO Welsh European Funding Office WFD Water Framework Directive

WFGA Well-Being of Future Generations Act

WG Welsh Government

WNMP Welsh National Marine Plan

Cardinal points/directions are used unless otherwise stated.

SI units are used unless otherwise stated.

Appendices



Innovative Thinking - Sustainable Solutions



A WNMP Indicator Framework Tables

Table A1. WNMP Objective 1

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
1. Support the sustainable development of the Welsh marine area by contributing across Wales' wellbeing goals, supporting the Sustainable Management of Natural Resources (SMNR) by taking account of the cumulative effects of all uses of the marine environment	GEN_01 Planning policy GOV_01 Cumulative effects	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce and maintain supplementary plan guidance Indicator - Guidance in place	Increased awareness and understanding of the WNMP Increased knowledge of needs of plan users Guidance being applied by users Implementation Guidance and Marine Planning Notices Assessment of relevant decisions for WNMP conformance	Relevant public authorities making decisions in accordance with the sustainable development principle, taking account of the cumulative effects of all uses on the marine environment Evaluation of plan conformance assessments Indicator – Effective application of GOV_01 Relevant public authorities taking a positive and timely	Improvement in effectiveness and efficiency in management of marine activities Increased resilience of marine economy, society, culture and environment

		approach to assessing proposals for development that comply with the Plan's policies and any other relevant considerations (e.g. the Well-being of Future Generations (Wales) Act 10 (WFGA)) Indicator – Stakeholder views via user survey	
--	--	---	--

Table A2. WNMP Objective 2

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
2. Contribute to a thriving Welsh economy by encouraging economically productive activities and profitable and sustainable businesses that create long term employment at all skill levels.	ECON_01 Sustainable¹ AGG_01a Aggregates (supporting) AGG_01b Aggregates (supporting) AQU_01a Aquaculture (supporting) AQU_01b Aquaculture (supporting) D&D_01 Dredging and Disposal (supporting)	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce and maintain supplementary plan guidance Indicator - Guidance in place Public authorities to make data and information openly	Increased awareness and understanding of the WNMP Increased knowledge of needs of plan users Guidance being applied by users Increase in level of evidence to support sectors and decision making Increase in data sharing Implementation Guidance and Marine Planning Notices	Improved standards of data Relevant public authorities supporting proposals for new development that comply with the Plan's policies and any other relevant considerations (e.g. Local Development Plans, Port Masterplans) Relevant public authorities considering opportunities to support marine sector activities (e.g. fishing), where these are	Increase in the economic contribution of marine activities and individual sectors in terms of measures such as Gross Value Added (GVA – the value of goods and services provided) Indicator – Welsh marine GVA Increased resilience of marine economy and society Open knowledge and information exchange to help support innovation

All policies that promote and contribute to economically productive activities are relevant (i.e. including ELC and T&R policies).

O&G_01a Oil and	available where	Assessment of	consistent with the	and economic
gas (supporting)	possible	relevant decisions	Plan's policies	growth
		for WNMP		
FIS_01a Fisheries	Stakeholder	conformance		Creation of new
(supporting)	engagement to			sustainable
	identify			activities in the
FIS_01b Fisheries	opportunities to			marine area that
(supporting)	address key			provide jobs and
	evidence gaps and			income
P&S_01a Ports	better understand			
and Shipping	opportunities for the			Indicator – Welsh
(supporting)	sustainable			marine
	development of			employment
P&S_01b Ports	marine sectors			
and Shipping				
(supporting)	Coordinated action			
	to help promote			
P&S_02 Ports and	marine sector and			
Shipping	activities			
(supporting)				
CAB_01 Subsea				
cabling				
(supporting)				

Table A3. WNMP Objective 3

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
3. Supporting the opportunity to sustainably develop marine renewable energy resources with the right development in the right place, helping to achieve the UK's energy security and carbon reduction objectives, whilst fully considering other's interests, and ecosystem resilience.	ELC_01a Low carbon energy (supporting) wind ELC_01b Low carbon energy (supporting) wind ELC_02a Low carbon energy (supporting) wave ELC_02b Low carbon energy (supporting) wave ELC_03a Low carbon energy (supporting) tidal stream ELC_03b Low carbon energy (supporting) tidal stream ELC_03b Low carbon energy (supporting) tidal stream ELC_04: Low carbon energy	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce and maintain supplementary plan guidance Indicator - Guidance in place Collaborate to identify future constraints and opportunities for sustainable development, (including working through Offshore Energy Strategic	Increased awareness and understanding of the WNMP Increased knowledge of needs of plan users Guidance being applied by users Increase in level of evidence to support marine sector and decision making Implementation Guidance and Marine Planning Notices Assessment of relevant decisions for WNMP conformance	Relevant public authorities supporting Government in moving to a secure, diverse and affordable renewable electricity supply, including ensuring an appropriate contribution from marine energy Relevant public authorities supporting proposals for marine renewable development that meet Welsh Government's targets to increase renewable and low carbon energy generation and	Further marine renewable development contributing to the decarbonisation of the economy and to prosperity Contributing to a secure energy supply Providing an appropriate mix of sustainable energy provision Delivering social and economic benefit, whilst respecting the environment and local community Creation of new jobs associated with marine

(supporting) tidal	Environment	comply with the	renewable energy
range	Assessment	Plan's policies	development
	(OESEA) and with		
	The Crown Estate	Indicator –	Indicator - Welsh
	(TCE))	Stakeholder views	marine GVA
		via user survey	
	Work to progress		Indicator - Welsh
	testing and	Using a risk-based	marine
	demonstration	approach to	employment
	zones for marine	consenting of wave	
	renewable energy	and tidal projects,	
		employing adaptive	
	Indicator – Public	management where	
	investment in	necessary and	
	marine renewable	appropriate	
	energy		
	Stakeholder		
	engagement to		
	identify		
	opportunities to		
	address key		
	evidence gaps		

Table A4. WNMP Objective 4

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
4. Provide space to support existing and future economic activity through managing multiple uses, encouraging the coexistence of compatible activities, the mitigation of conflicts between users and where possible, by reducing the displacement of existing activities.	ECON_02 Coexistence SAF_01 Safeguarding existing activity SAF_02 Safeguarding strategic resources DEF_01 Defence (safeguarding)	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce and maintain supplementary plan guidance Indicator - Guidance in place Identification of Strategic Resources Areas (SRAs) Indicator - SRAs defined	Increased awareness and understanding of the WNMP Increased knowledge of needs of plan users Guidance being applied by users Up to date evidence to support marine sectors and decision making Implementation Guidance and Marine Planning Notices Assessment of relevant decisions for WNMP conformance	Relevant public authorities supporting proposals that promote the coexistence of compatible activities and optimise the use of the marine area and resource Indicator – Effective application of ECON_02 Relevant public authorities supporting proposals that avoid or mitigate conflicts between users wherever possible	Increase in economically active space in the marine plan area Increase in density and diversity of uses in economically active space in the marine plan area Reduced displacement Greater economic output from smaller footprint

Ensure sector and resource maps available on the marine planning portal are maintained up to date Indicator – Available evidence base	Indicator – Stakeholder views via user survey Safeguarding of current and future potential marine activity and resource use Indicator – Effective application of SAF_02	

Table A5. WNMP Objective 5

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
5. Recognise the significant value of coastal tourism and recreation to the Welsh economy and well-being and ensure such activity and potential for future growth are appropriately safeguarded.	T&R_01a Tourism and recreation (supporting) T&R_01b Tourism and recreation (supporting)	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce and maintain supplementary plan guidance Indicator - Guidance in place Relevant authorities and the sector to collaborate to understand opportunities for developing a strategic evidence base to improve understanding of	Increased awareness and understanding of the WNMP Increased knowledge of needs of plan users Guidance being applied by users Increase in level of evidence to support sector and decision making Increase in collaborative projects Implementation Guidance and Marine Planning Notices Assessment of relevant decisions	Improved evidence base for this sector Relevant authorities to support proposals that make a positive contribution to an maximise the potential for the sustainable development of tourism and recreation sector Relevant authorities to support the development of onshore facilities essential to marine recreation (e.g. transport links) Indicator— Stakeholder views via user survey	Increase in number of tourist related jobs associated with the marine and coastal environment Indicator – Welsh marine GVA Improved local services and amenities Indicator – Increase in coastal and tourism businesses Increase in the volume and value of cruise visits to Wales

		1
current and	for WNMP	Increase in
potential tourism	conformance	sustainable tourism
and recreation		and recreation
activities		
		Indicator –
Indicator -		Increased
Available		participation
evidence base		
		Delivering social
Relevant authorities		and economic
and the sector to		benefit
collaborate to		
understand		Improving human
opportunities to		wellbeing and
define areas of		health
future opportunity		
for tourism and		Diversification of
recreation		tourism and
		recreation sector
Indicator - Public		
and private		Successful
investment		integration between
		marine and
		terrestrial plans

Table A6. WNMP Objective 6

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
6. Contribute to supporting the development of vibrant, more equitable, culturally and linguistically distinct, cohesive and resilient coastal communities.	SOC_02 Well-being of coastal communities SOC_04 Welsh language and culture	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce and maintain supplementary plan guidance Indicator - Guidance in place Public authorities to promote and facilitate participation in decision making through the medium of Welsh	Increased awareness and understanding of the WNMP Increased knowledge of needs of plan users Guidance being applied by users Implementation Guidance and Marine Planning Notices Assessment of relevant decisions for WNMP conformance	Relevant authorities to support proposals that contribute positively to coastal communities and enhance the cultural identity and well-being of those communities for the future Indicator – Effective application of SOC_02 Relevant authorities to support proposals that seek to identify opportunities to promote the Welsh language and facilitate its use in their sector and beyond	Improved wellbeing of coastal communities Increased use of the Welsh language and increased number of Welsh speakers

Development of Indicators	For Monitoring and	Reporting of the \	Welsh National Marine Pla	n Welsh Government
	<u> </u>	1 3		

		Indicator – Effective application of SOC_04	
		Indicator – Stakeholder views via user survey	

Table A7. WNMP Objective 7

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
7. Support enjoyment and stewardship of our coasts and seas and their resources by encouraging equitable and safe access to a resilient marine environment, whilst protecting and promoting valuable landscapes, seascapes and historic assets.	SOC_01: Access to the marine environment SOC_05: Historic assets SOC_06: Designated landscapes SOC_07: Seascapes	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce, maintain and promote use of supplementary plan guidance Indicator - Guidance in place Identification of barriers to coastal access Stakeholder engagement to identify opportunities to address key	Increased awareness and understanding of the WNMP Increased knowledge of needs of plan users Increased numbers of proposals supporting access to the marine environment Increased public awareness of the importance of historic / landscape and seascape assets Guidance being applied by users Increased availability and use	Reduction in the barriers to coastal access, particularly for young / low income households. Use of Strategic Resource Areas by developers Indicator – Effective implementation of SRA Relevant public authorities making decisions in accordance with the sustainable development principle, taking account of the WNMP policies and the cumulative effects of all uses	Increased numbers of people with access to the marine environment Indicator – Recreational use of the marine environment Lower negative impacts on access / historic assets / landscapes / seascapes from development Increase in the overall economic contribution from increased use of and development within the marine and coastal environment

avidonas sens seral	of data to sure sent	on the man in a	Indicator Walst
evidence gaps and	of data to support	on the marine	Indicator – Welsh
opportunities to	proposals	environment	marine GVA
enhance historic	Indicator Data	Fuelustian of alex	
assets / landscapes	Indicator – Data	Evaluation of plan	Increased public
/ seascapes	use	conformance	wellbeing
	1	assessments	(incorporating
Public authorities to	Increased		physical and mental
make data and	engagement by	Indicator –	health)
information openly	stakeholders in	Effective	
available where	identification and	application of	Quality and value of
possible	utilisation of	SOC_01	historic assets,
	opportunities for		seascapes and
Indicator -	access	Indicator -	landscapes are
Available		Effective	maintained and if
evidence base	Increased	application of	possible enhanced
	understanding of	SOC_05	'
Development of	opportunities and		Indicator -
sector specific	limitations on	Indicator –	Historic Asset
guidance to identify	development in the	Effective	Condition
areas of higher /	marine environment	application of	
lower risk		SOC_06	
incorporating	Assessment of		
historic assets /	relevant decisions	Indicator -	
landscapes and	for WNMP	Effective	
seascapes	conformance	application of	
30000000		SOC_07	
Identification of		_	
funding schemes			
for projects to			
improve access to			
the marine			
environment			

Table A8. WNMP Objective 8

,	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
understanding and enable action supporting climate change adaptation and mitigation.	SOC_08: Resilience to coastal change and Flooding SOC_09: Effects on coastal change and Flooding SOC_10: Minimising climate change SOC_11: Resilience to climate change	Promote and raise awareness of the WNMP and SMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce, maintain and promote use of supplementary plan guidance Indicator - Guidance in place Stakeholder engagement to identify opportunities to address key evidence gaps Investment in climate adaptation /	Increased awareness and understanding of the WNMP Increased knowledge of needs of plan users Increased number of proposals contributing to climate change adaptation and/or mitigation in Welsh marine area Indicator – Numbers of renewable energy proposals Guidance being applied by users	Reduction in greenhouse gas emissions from individual proposals with potential to affect the marine plan area Relevant public authorities making decisions in accordance with the sustainable development principle, taking account of the WNMP policies, coastal change and flooding and climate change Relevant public authorities supporting proposals for marine renewable development that meet Welsh Government's targets to increase renewable and low carbon energy	Reduction in greenhouse gases emissions in Wales Greater resilience to climate change and coastal flooding in Wales Indicator – Cost of coastal flooding Successful implementation of SMP policies across Wales

T		1	
resilience at the	Increased	generation and comply	
coast	availability and	with the Plan's policies	
	use of data to	-	
Indicator - Public	support proposals	Indicator –	
funding		Stakeholder views	
availability	Indicator – Data	via user survey	
	use		
	doo	Increased adherence	
	Assessment of	to SMP policies by	
	relevant decisions	developers	
	for WNMP	developers	
	conformance	Indicator –	
	Comomance	Conformance with	
		SMP policies	
		Reduction in adverse	
		impacts of proposals	
		on coastal processes	
		Evaluation of plan	
		Evaluation of plan	
		conformance	
		assessments	
		Indicator – Effective	
		application of	
		SOC_08 and SOC_09	
		Indicator – Effective	
		application of	
		SOC_10 and SOC_11	

Table A9. WNMP Objective 9

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
9. Support the achievement and maintenance of Good Environmental Status (GES) and Good Ecological Status (GeS).	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas ENV_03: Invasive non-native species ENV_04: Marine litter ENV_05: Underwater noise ENV_06: Air and water quality ENV_07: Fish Species and Habitats GOV_01: Cumulative effects	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Assessment of relevant decisions for WNMP conformance Produce, maintain and promote use of supplementary plan guidance Indicator - Guidance in place	Increased awareness and understanding of the WNMP Guidance being applied by users Proposals demonstrate avoidance or minimisation of impacts from or on INNS / Marine Litter / Underwater Noise / Air and Water Quality / Fish Species and Habitats Where appropriate, the consenting process requires developers to record impulsive noise-generating	Relevant public authorities making decisions in accordance with the sustainable development principle, taking account of the WNMP policies Reduction in the rate of spread observed for INNS in Welsh marine area Indicator – INNS distribution Reduction in marine litter recorded in Welsh marine area Indicator – Marine Litter Reduction in the impacts of marine litter on recorded species in the Welsh marine area Improvement in recorded metrics for air and water quality	Reduced pressure on the marine environment from development footprints/ INNS / Marine Litter / Underwater Noise / Air and Water Quality / Fish Species and Habitats Progress towards targets for GES / GeS for assessment areas incorporating the Welsh marine area Indicator – GES

		T
activi	ities within Indicator – Stakeholder	determinatio
the M	Marine Noise views via user survey	n
Regis	stry	
	Evaluation of plan	Greater
	conformance assessments	resilience to
		pressures
	Indicator – Effective	through use
	application of ENV_01	of marine
		resources in
	Indicator – Effective	a way that
	application of ENV_02	_
		supports
	Indicator – Effective	ecosystem
	application of ENV_03	resilience
	Indicator – Effective	
	application of ENV_04	
	application of Live_04	
	Indicator – Effective	
	application of ENV_05	
	application of Live_03	
	Indicator – Effective	
	application of ENV_06	
	Indicator – Effective	
	application of ENV_07	
	Indicator Effective	
	Indicator – Effective	
	application of GOV_01	

Table A10. WNMP Objective 10

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
10. Protect, conserve restore and enhance marine biodiversity to halt and reverse its decline including supporting the development and functioning of a well-managed and ecologically coherent network of MPAs and resilient populations of representative, rare and vulnerable species.	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce, maintain and promote use of supplementary plan guidance Indicator - Guidance in place Strategic data baseline development, including action to make data and information openly available where possible	Increased awareness and understanding of the WNMP Increased number of proposals contributing to restoration / enhancement of marine ecosystems Indicator – Number of restoration/enhancement projects Increased knowledge of needs of plan users Guidance being applied by users Increase in level of evidence to support	Greater connectivity between discrete examples of marine ecosystems Increased extent of sensitive marine ecosystems within Welsh waters Relevant public authorities making decisions in accordance with the sustainable development principle, taking account of the WNMP policies Evaluation of plan conformance assessments Indicator – Effective	More resilient marine ecosystems

Indicator – Available evidence base Stakeholder engagement to identify opportunities to address key evidence gaps and identify opportunities for restoration and / or enhancement of marine ecosystems Investment in projects	
evidence gaps and identify opportunities for	Stakeholder views
enhancement of marine ecosystems	
Investment in projects contributing to restoration and / or enhancement of marine ecosystems	
Indicator – Public funding availability	

Table A11. WNMP Objective 11

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
11. Maintain and enhance the resilience of marine ecosystems and the benefits they provide in order to meet the needs of present and future generations.	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce, maintain and promote use of supplementary plan guidance Indicator - Guidance in place Stakeholder engagement to identify opportunities to address key evidence gaps	Increased awareness and understanding of the WNMP Increase in level of evidence to support developers and decision making Guidance being applied by users	Greater connectivity between discreet examples of marine ecosystems Increased extent of sensitive marine ecosystems within Welsh waters Indicator – Designated site condition assessments Relevant public authorities making decisions in accordance with the sustainable development principle, taking account of the WNMP policies	More resilient marine ecosystems

Development of Indicators For Monitoring and Reporting of the Welsh National Marine Plan | Welsh Government

		Evaluation of plan conformance assessments	
		Indicator – Effective application of ENV_01	
		Indicator – Effective application of ENV_02	
		Indicator – Stakeholder views via user survey	

Table A12. WNMP Objective 12

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
12. Support proportionate, consistent and integrated decision making through implementing forward-looking policies as part of a plan-led, precautionary, risk based and adaptive approach to managing Welsh seas.	GOV_02 Cross-border and plan compatibility GEN_02 Planning policy	Promote and raise awareness of the WNMP (e.g. through Marine Planning Stakeholder Reference Group and Marine Planning Decision Makers Group) Produce and maintain supplementary plan guidance Indicator - Guidance in place Collaborate on cross-border issues	Increased awareness and understanding of the WNMP Increased knowledge of needs of plan users Guidance being applied by users Implementation Guidance and Marine Planning Notices Assessment of relevant decisions for WNMP conformance Agreements on cross-border consultation requirements	Relevant public authorities having regard to other relevant marine and terrestrial plan policies Indicator – Effective application of GOV_02 Relevant public authorities taking a proportionate, approach to application of relevant marine plan policies in decision making Indicator – Effective application of GEN_02	Successful integration between marine and terrestrial plans and cross border plans Improvement in effectiveness and efficiency in management of marine activities

Table A13. WNMP Objective 13

WNMP Objective	Relevant Plan Policies	Activities	Outputs	Intermediate Outcomes	Outcomes
13. Develop a shared, accessible marine evidence base to support use of sound evidence and provide a mechanism for the unique characteristics and opportunities of the Welsh Marine Plan Area to be better understood.	SCI_01 Risk- based decision making	Maintain access to, an understanding of and, where appropriate, contribute to the evidence base Indicator – Available evidence base	Current evidence base – distribution, quality, accessibility, whether spatial or not (Wales Marine Evidence Report and Marine Planning Portal) Evidence programmes and interaction with WNMP (e.g. Marine Evidence Strategy) Indicator – Marine Evidence Strategy	Better decision making as a result of better availability of evidence Indicator— Stakeholder views via user survey	Better understanding of the marine environment More sustainable use of the Welsh marine environment

B Headline Indicator Table

Table B1. Headline indicator table

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
1	а	Guidance in place	1	GEN_01 Planning policy GOV_01 Cumulative effects	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form, planning application form, PINS system
1	b	Guidance in place	2	ECON_01 Sustainable ² AGG_01a Aggregates (supporting) AGG_01b Aggregates (supporting) AQU_01a Aquaculture (supporting) AQU_01b Aquaculture (supporting)	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form

All policies that promote and contribute to economically productive activities are relevant (i.e. including ELC and T&R policies).

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
				D&D_01 Dredging and Disposal (supporting) O&G_01a Oil and gas (supporting) FIS_01a Fisheries (supporting) FIS_01b Fisheries (supporting) P&S_01a Ports and Shipping (supporting) P&S_01b Ports and Shipping (supporting) P&S_02 Ports and Shipping (supporting) CAB_01 Subsea cabling (supporting)				
1	С	Guidance in place	3	ELC_01a Low carbon energy (supporting) wind ELC_01b Low carbon energy (supporting) wind ELC_02a Low carbon energy (supporting) wave	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
1	d	Guidance in place	4	ELC_02b Low carbon energy (supporting) wave ELC_03a Low carbon energy (supporting) tidal stream ELC_03b Low carbon energy (supporting) tidal stream ELC_04: Low carbon energy (supporting) tidal range ECON_02 Coexistence SAF_01 Safeguarding existing activity SAF_02 Safeguarding strategic resources DEF_01 Defence (safeguarding)	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form
1	е	Guidance in place	5	T&R_01a Tourism and recreation (supporting) T&R_01b Tourism and recreation (supporting)	Activity	Policy	Evidence that there is guidance in place for applicants to	NRW website, marine licence application form, planning application

Development of Indicators For Monitoring and Reporting of the Welsh National Marine Plan | Welsh Government

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
							conform to WNMP	form, PINS system
1	f	Guidance in place	6	SOC_02 Well-being of coastal communities SOC_04 Welsh language and culture	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form, planning application form, PINS system
1	g	Guidance in place	7	SOC_01: Access to the marine environment SOC_05: Historic assets SOC_06: Designated landscapes SOC_07: Seascapes	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form, planning application form, PINS system

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
1	h	Guidance in place	8	SOC_08: Resilience to coastal change and Flooding SOC_09: Effects on coastal change and Flooding SOC_10: Minimising climate change SOC_11: Resilience to climate change	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form, planning application form, PINS system
1	İ	Guidance in place	9	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas ENV_03: Invasive nonnative species ENV_04: Marine litter ENV_05: Underwater noise ENV_06: Air and water quality ENV_07: Fish Species and Habitats	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form, planning application form, PINS system

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
				GOV_01: Cumulative effects				
1	j	Guidance in place	10	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form, planning application form, PINS system
1	k	Guidance in place	11	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form, planning application form, PINS system
1	I	Guidance in place	12	GOV_02 Cross-border and plan compatibility GEN_02 Planning policy	Activity	Policy	Evidence that there is guidance in place for applicants to conform to WNMP	NRW website, marine licence application form, planning application form, PINS system

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
2	а	Effective application of policy	1	GOV_01 Cumulative effects	Intermedi ate outcome	Plan-led decision- making	Evidence that policy is effectively being applied through the evaluation of plan conformance assessments	Marine licence and planning applications and supporting WNMP conformance assessments
2	b	Effective application of policy	4	ECON_02 Coexistence SAF_02 Safeguarding strategic resources	Intermedi ate outcome	Plan-led decision- making	Evidence that policy is effectively being applied through the evaluation of plan conformance assessments	Marine licence applications and supporting WNMP conformance assessments
2	С	Effective application of policy	6	SOC_02 Well-being of coastal communities SOC_04 Welsh language and culture	Intermedi ate outcome	Plan-led decision- making	Evidence that policy is effectively being applied through the evaluation of plan	Marine licence and planning applications and supporting WNMP conformance assessments

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
							conformance assessments	
2	d	Effective application of policy	7	SOC_01: Access to the marine environment SOC_05: Historic assets SOC_06: Designated landscapes SOC_07: Seascapes	Intermedi ate Outcome	Plan-led decision- making	Evidence that policy is effectively being applied through the evaluation of plan conformance assessments	Marine licence and planning applications and supporting WNMP conformance assessments
2	е	Effective application of policy	8	SOC_08: Resilience to coastal change and Flooding SOC_09: Effects on coastal change and Flooding SOC_10: Minimising climate change SOC_11: Resilience to climate change	Intermedi ate Outcome	Plan-led decision- making	Evidence that policy is effectively being applied through the evaluation of plan conformance assessments	Marine licence and planning applications and supporting WNMP conformance assessments
2	f	Effective application of policy	9	ENV_01: Resilient marine ecosystems	Intermedi ate Outcome	Plan-led decision- making	Evidence that policy is effectively	Marine licence and planning applications

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
				ENV_02: Marine Protected Areas ENV_03: Invasive nonnative species ENV_04: Marine litter ENV_05: Underwater noise ENV_06: Air and water quality ENV_07: Fish Species and Habitats GOV_01: Cumulative effects			being applied through the evaluation of plan conformance assessments	and supporting WNMP conformance assessments
2	g	Effective application of policy	10	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Intermedi ate Outcome	Plan-led decision- making	Evidence that policy is effectively being applied through the evaluation of plan conformance assessments	Marine licence and planning applications and supporting WNMP conformance assessments
2	h	Effective application of policy	11	ENV_01: Resilient marine ecosystems	Intermedi ate Outcome	Plan-led decision- making	Evidence that policy is effectively	Marine licence and planning applications

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
				ENV_02: Marine Protected Areas			being applied through the evaluation of plan conformance assessments	and supporting WNMP conformance assessments
2	i	Effective application of policy	12	GOV_02 Cross-border and plan compatibility GEN_02 Planning policy	Intermedi ate outcome	Plan-led decision- making	Evidence that policy is effectively being applied through the evaluation of plan conformance assessments	Marine licence and planning applications and supporting WNMP conformance assessments
3	а	Stakeholder views via user survey	1	GEN_01 Planning policy GOV_01 Cumulative effects	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness of WNMP and guidance and extent to which policies are contributing to	On-line user survey – every 3 years

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
							achievement of objective	
3	b	Stakeholder views via user survey	3	ELC_01a Low carbon energy (supporting) wind ELC_01b Low carbon energy (supporting) wind ELC_02a Low carbon energy (supporting) wave ELC_02b Low carbon energy (supporting) wave ELC_03a Low carbon energy (supporting) tidal stream ELC_03b Low carbon energy (supporting) tidal stream ELC_04: Low carbon energy (supporting) tidal range	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness of WNMP and guidance and extent to which policies are contributing to achievement of objective	On-line user survey – every 3 years
3	С	Stakeholder views via user survey	4	ECON_02 Coexistence SAF_01 Safeguarding existing activity	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness	On-line user survey – every 3 years

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
				SAF_02 Safeguarding strategic resources DEF_01 Defence (safeguarding)			of WNMP and guidance and extent to which policies are contributing to achievement of objective	
3	d	Stakeholder views via user survey	5	T&R_01a Tourism and recreation (supporting) T&R_01b Tourism and recreation (supporting)	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness of WNMP and guidance and extent to which policies are contributing to achievement of objective	On-line user survey – every 3 years

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
3	е	Stakeholder views via user survey	6	SOC_02 Well-being of coastal communities SOC_04 Welsh language and culture	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness of WNMP and guidance and extent to which policies are contributing to achievement of objective	On-line user survey – every 3 years
3	f	Stakeholder views via user survey	8	SOC_08: Resilience to coastal change and Flooding SOC_09: Effects on coastal change and Flooding SOC_10: Minimising climate change SOC_11: Resilience to climate change	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness of WNMP and guidance and extent to which policies are contributing to achievement of objective	On-line user survey – every 3 years

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
3	g	Stakeholder views via user survey	9	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas ENV_03: Invasive nonnative species ENV_04: Marine litter ENV_05: Underwater noise ENV_06: Air and water quality ENV_07: Fish Species and Habitats GOV_01: Cumulative effects	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness of WNMP and guidance and extent to which policies are contributing to achievement of objective	On-line user survey – every 3 years
3	h	Stakeholder views via user survey	10	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness of WNMP and guidance and extent to which policies are contributing to	On-line user survey – every 3 years

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
							achievement of objective	
3	i	Stakeholder views via user survey	11	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness of WNMP and guidance and extent to which policies are contributing to achievement of objective	On-line user survey – every 3 years
3	j	Stakeholder views via user survey	13	SCI_01 Risk-based decision making	Intermedi ate outcome	Policy	Survey to determine views of stakeholders on usefulness of marine evidence base and level of understanding of the marine environment	On-line user survey – every 3 years

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
4	a	Welsh marine GVA	2	ECON_01 Sustainable ³ AGG_01a Aggregates (supporting) AGG_01b Aggregates (supporting) AQU_01a Aquaculture (supporting) AQU_01b Aquaculture (supporting) D&D_01 Dredging and Disposal (supporting) O&G_01a Oil and gas (supporting) FIS_01a Fisheries (supporting) FIS_01b Fisheries (supporting) P&S_01a Ports and Shipping (supporting)	Outcome	Policy/ Sustainab ility Appraisal	Monitor Welsh marine GVA every 6 years, focussing on key sectors, including aggregates, ports, aquaculture (shellfish, seaweed)	ONS and other sources

³ All policies that promote and contribute to economically productive activities are relevant (i.e. including ELC and T&R policies).

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
				P&S_01b Ports and Shipping (supporting) P&S_02 Ports and Shipping (supporting) CAB_01 Subsea cabling (supporting)				
4	b	Welsh marine GVA	3	ELC_01a Low carbon energy (supporting) wind ELC_01b Low carbon energy (supporting) wind ELC_02a Low carbon energy (supporting) wave ELC_02b Low carbon energy (supporting) wave ELC_03a Low carbon energy (supporting) tidal stream ELC_03b Low carbon energy (supporting) tidal stream ELC_04: Low carbon energy (supporting) tidal range	Outcome	Policy/ Sustainab ility Appraisal	Monitor Welsh low carbon marine GVA every 6 years by subsector: offshore wind, tidal stream, tidal range and wave	ONS and other sources

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
4	С	Welsh marine GVA	5	T&R_01a Tourism and recreation (supporting) T&R_01b Tourism and recreation (supporting)	Outcome	Policy/ Sustainab ility Appraisal	Monitor coastal tourism and recreation GVA every 6 years	ONS and other sources
4	d	Welsh marine GVA	7	SOC_01: Access to the marine environment SOC_05: Historic assets SOC_06: Designated landscapes SOC_07: Seascapes	Outcome	Policy/ Sustainab ility Appraisal	Monitor coastal tourism and recreation, and Welsh Marine GVA every 6 years	ONS and other sources
5	а	Welsh marine employmen t	2	ECON_01 Sustainable ⁴ AGG_01a Aggregates (supporting) AGG_01b Aggregates (supporting) AQU_01a Aquaculture (supporting) AQU_01b Aquaculture (supporting)	Outcome	Policy	Monitor Welsh marine employment every 6 years, focussing on key sectors, including aggregates, ports, aquaculture	ONS and other sources

_

⁴ All policies that promote and contribute to economically productive activities are relevant (i.e. including ELC and T&R policies).

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
				D&D_01 Dredging and Disposal (supporting) O&G_01a Oil and gas (supporting) FIS_01a Fisheries (supporting) FIS_01b Fisheries (supporting) P&S_01a Ports and Shipping (supporting) P&S_01b Ports and Shipping (supporting) P&S_02 Ports and Shipping (supporting) CAB_01 Subsea cabling (supporting)			(shellfish, seaweed)	
5	b	Welsh marine employmen t	3	ELC_01a Low carbon energy (supporting) wind ELC_01b Low carbon energy (supporting) wind ELC_02a Low carbon energy (supporting) wave	Outcome	Policy/ Sustainab ility Appraisal	Monitor Welsh low carbon marine employment every 6 years by subsector: offshore wind, tidal stream,	ONS and other sources

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
		Accellate		ELC_02b Low carbon energy (supporting) wave ELC_03a Low carbon energy (supporting) tidal stream ELC_03b Low carbon energy (supporting) tidal stream ELC_04: Low carbon energy (supporting) tidal range	A stirit	Delian	tidal range and wave	NIDW(al.aita
6	а	Available evidence base	4	ECON_02 Coexistence SAF_01 Safeguarding existing activity SAF_02 Safeguarding strategic resources DEF_01 Defence (safeguarding)	Activity	Policy	Sector and resource maps are available on the marine planning portal and are maintained up to date	NRW website, Marine Planning Portal
6	b	Available evidence base	5	T&R_01b Tourism and recreation (supporting)	Activity	Policy	Confirmation that there is a strategic evidence base in place to improve	Public authorities and tourism and recreation sector

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
							understanding of current and potential tourism and recreation activities	
6	С	Available evidence base	7	SOC_01: Access to the marine environment SOC_05: Historic assets SOC_06: Designated landscapes SOC_07: Seascapes	Activity	Policy	Data on historic assets, designated landscapes and seascapes, are available on public portals and maintained up to date.	NRW website, Marine Planning Portal
6	d	Available evidence base	10	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Activity	Policy	Data on the current status of the marine environment is available through public portals and maintained up to date	NRW website, Marine Planning Portal

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
6	е	Available evidence base	13	SCI_01 Risk-based decision making	Activity	Policy	Confirmation that there is an evidence base to support implementation , monitoring and review of WNMP	Wales Marine Evidence Report, Marine Planning Portal, evidence programmes and interaction with WNMP (e.g. Marine Evidence Strategy)
7	а	Public funding availability	8	SOC_08: Resilience to coastal change and Flooding SOC_09: Effects on coastal change and Flooding SOC_10: Minimising climate change SOC_11: Resilience to climate change	Activity	Policy	Evidence of public funding earmarked for supporting climate adaptation / resilience	NRW / WG budgets

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
7	b	Public funding availability	10	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Activity	Policy	Evidence of public funding earmarked for projects contributing to the restoration and / or enhancement of marine ecosystems	NRW / WG budgets
8	а	Data use	7	SOC_01: Access to the marine environment SOC_05: Historic assets SOC_06: Designated landscapes SOC_07: Seascapes	Output	Plan-led decision- making	The public are aware of and accessing datalayers for use in applications and support decision making. Reflected in data access / download statistics.	NRW website, Marine Planning Portal Statistics
8	b	Data use	8	SOC_08: Resilience to coastal change and	Output	Plan-led decision- making	The public are aware of and accessing	NRW website, Marine

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
0		Public	3	Flooding SOC_09: Effects on coastal change and Flooding SOC_10: Minimising climate change SOC_11: Resilience to climate change	Activity	Doliny	datalayers for use in applications and support decision making. Reflected in data access / download statistics.	Planning Portal Statistics
9	а	investment in marine renewable energy	3	ELC_01a Low carbon energy (supporting) wind ELC_01b Low carbon energy (supporting) wind ELC_02a Low carbon energy (supporting) wave ELC_02b Low carbon energy (supporting) wave ELC_03a Low carbon energy (supporting) tidal stream ELC_03b Low carbon energy (supporting) tidal stream	Activity	Policy	expenditure on supporting mechanisms and research	Government

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
				ELC_04: Low carbon energy (supporting) tidal range				
10	а	SRAs defined	4	ECON_02 Coexistence SAF_01 Safeguarding existing activity SAF_02 Safeguarding strategic resources DEF_01 Defence (safeguarding)	Activity	Policy	SRAs have been identified by Welsh Government	Welsh Government
11	а	Public and private investment	5	T&R_01a Tourism and recreation (supporting) T&R_01b Tourism and recreation (supporting)	Activity	Policy/ Sustainab ility Appraisal	Public and private expenditure to support development of strategic evidence base and identifying area of future opportunity	Public authorities and tourism and recreation sector
12	а	Increase in coastal and tourism businesses	5	T&R_01a Tourism and recreation (supporting) T&R_01b Tourism and recreation (supporting)	Outcome	Policy/ Sustainab ility Appraisal	Monitor number of Welsh coastal tourism and recreation	ONS and other sources

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
							businesses every 6 years	
13	а	Increased participation	5	T&R_01a Tourism and recreation (supporting) T&R_01b Tourism and recreation (supporting)	Outcome	Policy/ Sustainab ility Appraisal	Evidence that there has been an increased participation in tourism and recreation activities and use	NRW - Welsh Outdoor Recreation Survey?
14	а	Effective implementa tion of SRA	7	SOC_01: Access to the marine environment SOC_05: Historic assets SOC_06: Designated landscapes SOC_07: Seascapes	Intermedi ate Outcome	Plan-led decision- making	Proposals and applications submitted utilise the SRA areas once they are developed.	Record of applications within / outwith SRA.
15	а	Recreationa I use of the marine environmen t	7	SOC_01: Access to the marine environment SOC_05: Historic assets SOC_06: Designated landscapes SOC_07: Seascapes	Outcome	Policy	Monitor trends in recreational use of the marine environment broken down by socio-	Tourism statistics

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
							economic groups	
16	а	Historic Asset Condition	7	SOC_01: Access to the marine environment SOC_05: Historic assets SOC_06: Designated landscapes SOC_07: Seascapes	Outcome	Policy/ Sustainab ility Appraisal	Report on trends in the condition of historic assets, percentages of designated assets that are in stable / improved / deteriorating conditions.	CADW and WG sources for historic asset condition
17	а	Numbers of renewable energy proposals	8	SOC_10: Minimising climate change	Output	Plan-led decision- making	Statistics in the types of Marine Licence / Planning Applications, including specifically renewable energy in the marine environment.	Marine licence and planning applications

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
18	а	Conforman ce with SMP policies	8	SOC_08: Resilience to coastal change and Flooding SOC_09: Effects on coastal change and Flooding SOC_10: Minimising climate change SOC_11: Resilience to climate change	Intermedi ate outcome	Plan-led decision- making / Sustainab ility Appraisal	Review of applications and their conformance with SMP policies.	Marine Licence and planning applications
19	а	Cost of coastal flooding	8	SOC_08: Resilience to coastal change and Flooding SOC_09: Effects on coastal change and Flooding SOC_10: Minimising climate change SOC_11: Resilience to climate change	Outcome	Policy	Trends in the cost of coastal flooding, with some breakdown of statistics between pre-WNMP and post WNMP coastal assets	ONS, NRW, WG and regional / council statistics on spending.

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
20	а	INNS distribution	9	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas ENV_03: Invasive nonnative species GOV_01: Cumulative effects	Intermedi ate Outcome	Policy	Data on the presence of new or the spread of currently recorded INNS in the Welsh marine area.	MSFD reporting statistics.
21	а	Marine Litter	9	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas ENV_04: Marine litter ENV_07: Fish Species and Habitats GOV_01: Cumulative effects	Intermedi ate Outcome	Policy	Data on the presence of marine litter, and exposure to or impacts on marine species.	MSFD reporting statistics.
22	а	GES determinati on	9	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas ENV_03: Invasive nonnative species	Outcome	Policy/ Sustainab ility Appraisal	Review of progress towards targets or achieving GES / GeS under	MSFD / WFD reporting

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
				ENV_04: Marine litter ENV_05: Underwater noise ENV_06: Air and water quality ENV_07: Fish Species and Habitats GOV_01: Cumulative effects			the WFD and MSFD.	
23	а	Number of restoration/ enhanceme nt projects	10	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Output	Policy/ Sustainab ility Appraisal	Trends in the number of projects / proposals submitted with a focus of restoration / enhancement of the environment.	Marine licence and planning applications
24	а	Designated site condition assessment s	11	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas	Intermedi ate Outcome	Policy/ Sustainab ility Appraisal	Review of the outputs of designated site condition assessments.	Designate site condition assessments

Development of Indicators For Monitoring and Reporting of the Welsh National Marine Plan | Welsh Government

No.	Sub- indicato r Refere nce	Indicator Name	Releva nt WNMP Objecti ve	Relevant WNMP Policy	Indicator Type	Indicator Category	Description	Data Sources/ Data Availability
25	а	Marine Evidence Strategy	13	SCI_01 Risk-based decision making	Output	Policy	Progress with development and implementation of Marine Evidence Strategy.	Welsh Government website

C Indicator Cards

Table C1. Indicator 1

Indicator Number	1
Sub-indicator reference	a-l
Indicator name	Supplementary plan guidance available
Relevant WNMP objective	1-12
Relevant WNMP policy	GEN_01 Planning policy
policy	GOV_01 Cumulative effects
	ECON_01 Sustainable
	AGG_01a Aggregates (supporting)
	AGG_01b Aggregates (supporting)
	AQU_01a Aquaculture (supporting)
	AQU_01b Aquaculture (supporting)
	D&D_01 Dredging and Disposal (supporting)
	O&G_01a Oil and gas (supporting)
	FIS_01a Fisheries (supporting)
	FIS_01b Fisheries (supporting)
	P&S_01a Ports and Shipping (supporting)
	P&S_01b Ports and Shipping (supporting)
	P&S_02 Ports and Shipping (supporting)
	CAB_01 Subsea cabling (supporting)
	ELC_01a Low carbon energy (supporting) wind
	ELC_01b Low carbon energy (supporting) wind
	ELC_02a Low carbon energy (supporting) wave

Indicator Number	1
	ELC_02b Low carbon energy (supporting) wave
	ELC_03a Low carbon energy (supporting) tidal stream
	ELC_03b Low carbon energy (supporting) tidal stream
	ELC_04: Low carbon energy (supporting) tidal range
	ECON_02 Coexistence
	SAF_01 Safeguarding existing activity
	SAF_02 Safeguarding strategic resources
	DEF_01 Defence (safeguarding)
	T&R_01a Tourism and recreation (supporting)
	T&R_01b Tourism and recreation (supporting)
	SOC_02 Well-being of coastal communities
	SOC_04 Welsh language and culture
	SOC_01: Access to the marine environment
	SOC_05: Historic assets
	SOC_06: Designated landscapes
	SOC_07: Seascapes
	SOC_08: Resilience to coastal change and Flooding
	SOC_09: Effects on coastal change and Flooding
	SOC_10: Minimising climate change
	SOC_11: Resilience to climate change
	ENV_01: Resilient marine ecosystems
	ENV_02: Marine Protected Areas
	ENV_03: Invasive non-native species
	ENV_04: Marine litter
	ENV_05: Underwater noise

Indicator Number	1
	ENV_06: Air and water quality
	ENV_07: Fish Species and Habitats
	GOV_01: Cumulative effects
	ENV_01: Resilient marine ecosystems
	ENV_02: Marine Protected Areas
	ENV_01: Resilient marine ecosystems
	ENV_02: Marine Protected Areas
	GOV_02 Cross-border and plan compatibility
	GEN_02 Planning policy
Indicator type	Activity
Indicator category	Policy
Description	Evidence that there is supplementary plan guidance available for applicants to conform to WNMP.
Proposed target	Supplementary plan guidance available by a specified date.
Rationale	The indicator is seeking to provide information on whether supplementary plan guidance has been produced and is in place to support implementation of specific plan policies. It is an important component in the logic model and provides tangible and meaningful evidence of guidance being made available to support policy implementation. The specific indicator assesses the extent to which guidance is in place across all relevant WNMP objectives and policies.
Sources of data	NRW or Welsh Government website. This source of information is not currently available. Over time, could also include other relevant guidance that supports WNMP from other decision makers and plan users (e.g. sector bodies).
Methodology	The indicator provides a narrative on the progress that has been made on the number/proportion of WNMP objectives for which supplementary plan guidance has been prepared to support their implementation.

Development of Indicators For Monitoring and Reporting of the Welsh National Marine Plan | Welsh Government

Indicator Number	1
Assumptions and uncertainties	The indicator provides information on the extent to which guidance is in place. It does not provide information on the extent to which the guidance is being applied nor stakeholders perceptions on the usefulness of the guidance. It also does not provide information on whether the guidance is being updated and maintained to support improved implementation of WNMP. Once guidance is in place, a further indicator could be introduced to report on the review and update of guidance taking place.

Table C2. Indicator 2

Indicator Number	2
Sub-indicator reference	a-i
Indicator name	Effective application of policy
Relevant WNMP objective	1, 4, 6-12
Relevant WNMP policy	GOV_01 Cumulative effects
policy	ECON_02 Coexistence
	SAF_02 Safeguarding strategic resources
	SOC_02 Well-being of coastal communities
	SOC_04 Welsh language and culture
	SOC_01: Access to the marine environment
	SOC_05: Historic assets
	SOC_06: Designated landscapes
	SOC_07: Seascapes
	SOC_08: Resilience to coastal change and Flooding
	SOC_09: Effects on coastal change and Flooding
	SOC_10: Minimising climate change
	SOC_11: Resilience to climate change
	ENV_01: Resilient marine ecosystems
	ENV_02: Marine Protected Areas
	ENV_03: Invasive non-native species
	ENV_04: Marine litter
	ENV_05: Underwater noise
	ENV_06: Air and water quality
	ENV_07: Fish Species and Habitats

	GOV_02 Cross-border and plan compatibility
	GEN_02 Planning policy
Indicator type	Intermediate outcome
Indicator category	Plan-led decision-making
Description	Evaluation of plan conformance assessments to determine if policy is effectively being applied.
Proposed target	Increasing proportion of licence applications evaluate conformance to relevant policies over time.
Rationale	The indicator is seeking to determine if there is evidence that relevant marine plan policies are effectively being taken account of through evaluation of plan conformance assessments provided in support of licence applications. It is an important component in the logic model and provides demonstrable and meaningful evidence that relevant policies are being effectively considered in licence applications. The specific indicator assesses the trend in the number of licence applications that consider compliance with relevant WNMP objectives and policies.
Sources of data	Marine licence and planning applications and supporting WNMP conformance assessments. Marine licence applications are currently available from the NRW public register (https://publicregister.naturalresources.wales/). Supporting environmental information (e.g. Environmental Statements, stand-alone WNMP conformance assessments) is held by the NRW marine licensing team. Planning applications and supporting documentation are available on the individual public registers of individual local planning authorities. Marine licence and planning applications are made available on public registers once they have been validated by the licensing authority.
Methodology	The indicator provides a narrative on the progress that has been made on the annual number and proportion of licence applications for which WNMP conformance assessment has been undertaken. This indicator is likely to initially focus on information available from NRW marine licensing team which is more easily accessible and then will incrementally take account of information available from local planning authorities.

uncertainties	The indicator provides information on the extent to which conformance to policies is assessed by applicants. It does not consider whether those policies are being effectively applied.

Table C3. Indicator 3

Indicator Number	3
Sub-indicator reference	а-ј
Indicator name	Stakeholder views via user survey
Relevant WNMP objective	1, 3-6, 8-11, 13
Relevant WNMP policy	GEN_01 Planning policy
policy	GOV_01 Cumulative effects
	ELC_01a Low carbon energy (supporting) wind
	ELC_01b Low carbon energy (supporting) wind
	ELC_02a Low carbon energy (supporting) wave
	ELC_02b Low carbon energy (supporting) wave
	ELC_03a Low carbon energy (supporting) tidal stream
	ELC_03b Low carbon energy (supporting) tidal stream
	ELC_04: Low carbon energy (supporting) tidal range
	ECON_02 Coexistence
	SAF_01 Safeguarding existing activity
	SAF_02 Safeguarding strategic resources
	DEF_01 Defence (safeguarding)
	T&R_01a Tourism and recreation (supporting)
	T&R_01b Tourism and recreation (supporting)
	SOC_02 Well-being of coastal communities
	SOC_04 Welsh language and culture
	SOC_08: Resilience to coastal change and Flooding
	SOC_09: Effects on coastal change and Flooding
	SOC_10: Minimising climate change

	SOC_11: Resilience to climate change
	ENV_01: Resilient marine ecosystems
	ENV_02: Marine Protected Areas
	ENV_03: Invasive non-native species
	ENV_04: Marine litter
	ENV_05: Underwater noise
	ENV_06: Air and water quality
	ENV_07: Fish Species and Habitats
	SCI_01 Risk-based decision making
Indicator type	Intermediate outcome
Indicator category	Policy
Description	Views of stakeholders (i.e. applicants and licensing authorities) on the usefulness of the WNMP and associated guidance, and the extent to which policies are contributing to achievement of WNMP objectives. This information would be collected from user surveys that are issued once every 3 years to all stakeholders.
Proposed target	A significant majority (80 %) of respondents agree or strongly agree that the WNMP is helpful in clarifying requirements for the marine area and a significant majority (80%) of respondents agree or strongly agree that WNMP policies are contributing to the achievement of WNMP objectives.
Rationale	The indicator is seeking the collection of evidence to evaluate the perceived outcomes of the WNMP. It provides qualitative evidence on the value of the WNMP and available guidance, as well as whether policies are contributing to achievement of WNMP objectives. This will inform whether the guidance needs to be amended to ensure greater conformance with relevant WNMP objectives and policies.
	The survey will cover all relevant stakeholders and whilst returns to the survey cannot be guaranteed, all those who may contribute to conformance to the WNMP will be given the chance to respond once every 3 years. The survey can track stakeholder perceptions over time in a repeating survey. Such methods are credible and an effective measure of policy effectiveness when appropriately designed and implemented.

Sources of data	On-line user survey. This source of information is not currently available.
Methodology	The specific indicator is assessed as the proportion of respondents that agree or strongly agree that the WNMP is helpful in clarifying requirements for the marine area and that the WNMP policies are contributing to the achievement of WNMP objectives. Other questions can be included in the user survey as required.
Assumptions and uncertainties	The indicator provides information on the extent to which the user survey is in place and stakeholders are provided the opportunity to express their views and feedback on the perceived usefulness of the WNMP and associated guidance. The views from stakeholders are subjective rather than objective, and therefore the evidence provided by this indicator should be considered in light of its subjective nature. Furthermore, the detail and outcomes of the user survey will depend on what questions are asked and what rating scale is applied.

Table C4. Indicator 4

Indicator Number	4
Sub-indicator reference	a-d
Indicator name	Welsh marine GVA
Relevant WNMP objective	2, 3, 5, 7
Relevant WNMP policy	ECON_01 Sustainable
policy	AGG_01a Aggregates (supporting)
	AGG_01b Aggregates (supporting)
	AQU_01a Aquaculture (supporting)
	AQU_01b Aquaculture (supporting)
	D&D_01 Dredging and Disposal (supporting)
	O&G_01a Oil and gas (supporting)
	FIS_01a Fisheries (supporting)
	FIS_01b Fisheries (supporting)

	P&S_01a Ports and Shipping (supporting)
	P&S_01b Ports and Shipping (supporting)
	P&S_02 Ports and Shipping (supporting)
	CAB_01 Subsea cabling (supporting)
	ELC_01a Low carbon energy (supporting) wind
	ELC_01b Low carbon energy (supporting) wind
	ELC_02a Low carbon energy (supporting) wave
	ELC_02b Low carbon energy (supporting) wave
	ELC_03a Low carbon energy (supporting) tidal stream
	ELC_03b Low carbon energy (supporting) tidal stream
	ELC_04: Low carbon energy (supporting) tidal range
	T&R_01a Tourism and recreation (supporting)
	T&R_01b Tourism and recreation (supporting)
	SOC_01: Access to the marine environment
	SOC_05: Historic assets
	SOC_06: Designated landscapes
	SOC_07: Seascapes
Indicator type	Outcome
Indicator category	Policy/ Sustainability Appraisal
Description	Monitoring of annual Welsh marine GVA for key sectors, including offshore wind, tidal stream, tidal range, wave, aggregates, ports, aquaculture (shellfish, seaweed), tourism and recreation.
Proposed target	Annual trend in Welsh marine GVA across key sectors monitored.
Rationale	The support provided by the WNMP to marine activities may result in an increase in the economic contribution of marine activities and individual sectors in terms of measures such as the value of goods and services produced (i.e. GVA). The indicator is seeking to monitor economic trends by

	tracking Welsh marine GVA for key sectors. It therefore provides a quantifiable and recurrent value although it will remain unclear to what extent any changes might be attributed to the WNMP or to other drivers. The economic effect of the WNMP is an important component of the logic model.
Sources of data	Office for National Statistics (ONS) and other sources, dependent on sector. There is currently no single source of data and different sources may be required for different sectors. A standardised way of estimating GVA for each sector is needed in order to evaluate trends.
Methodology	The specific indicator is assessed as a trend in increasing Welsh GVA by key marine sector, aligned to growth targets, where these may have been set. There are challenges in estimating GVA for some sectors owing to limitations in how ONS record data. The Standard Industrial Classification (SIC) codes used by ONS do not always align well with marine industries, particularly for renewable energy, making analysis of certain sectors challenging. A more detailed approach that sets out the information that would be required to report on this indicator is provided in Appendix D.
Assumptions and uncertainties	The indicator provides information on the economic value of different Welsh marine sectors over time and thus whether marine economic objectives are being achieved. However, it does not necessarily provide direct evidence that the implementation of WNMP objectives and policies provide economic benefits as other drivers may be as or more important in delivering economic growth (e.g. Brexit and trade, UK government macro-economic policies, replacements for structural funds). There can also be some further issues around allocation where there are multi-site operations covering areas outside of Wales.

Table C5. Indicator 5

Indicator Number	5
Sub-indicator reference	a-b
Indicator name	Welsh marine employment
Relevant WNMP objective	2, 3, 5, 7

Relevant WNMP	ECON_01 Sustainable
policy	AGG_01a Aggregates (supporting)
	AGG_01b Aggregates (supporting)
	AQU_01a Aquaculture (supporting)
	AQU_01b Aquaculture (supporting)
	D&D_01 Dredging and Disposal (supporting)
	O&G_01a Oil and gas (supporting)
	FIS_01a Fisheries (supporting)
	FIS_01b Fisheries (supporting)
	P&S_01a Ports and Shipping (supporting)
	P&S_01b Ports and Shipping (supporting)
	P&S_02 Ports and Shipping (supporting)
	CAB_01 Subsea cabling (supporting)
	ELC_01a Low carbon energy (supporting) wind
	ELC_01b Low carbon energy (supporting) wind
	ELC_02a Low carbon energy (supporting) wave
	ELC_02b Low carbon energy (supporting) wave
	ELC_03a Low carbon energy (supporting) tidal stream
	ELC_03b Low carbon energy (supporting) tidal stream
	ELC_04: Low carbon energy (supporting) tidal range
Indicator type	Outcome
Indicator category	Policy/ Sustainability Appraisal
Description	Monitoring of annual Welsh marine employment for key sectors, including offshore wind, tidal stream, tidal range, wave, aggregates, ports, aquaculture (shellfish, seaweed), tourism and recreation.

Proposed target	Annual trend in the number of people employed in key marine sectors across all Local authority areas bordering the WNMP area monitored.
Rationale	The support provided by the WNMP to marine activities may create new sustainable activities in the marine area that provide jobs and income within the WNMP area and local authority areas that border them. The indicator is seeking to monitor employment trends by tracking Welsh marine employment for key sectors. It therefore provides a quantifiable and recurrent value although it will remain unclear to what extent any changes might be attributed to the WNMP or to other drivers. The economic effect of the WNMP is an important component of the logic model.
Sources of data	ONS employment data resolved to SIC sub-class sector resolution and Nomenclature of Territorial Units for Statistics level and other sources, dependent on sector. A standardised approach of estimating employment for each sector is proposed within the report associated with this indicator card, based on data sourced from Nomis (ONS) ⁵ in order to evaluate trends.
Methodology	The specific indicator is assessed as the trend in Welsh employment by key marine sector, aligned to grown targets, where these may have been set. There are challenges in estimating employment for some sectors owing to limitations in how ONS record data. The Standard Industrial Classification (SIC) codes used by ONS do not always align well with marine industries, particularly for renewable energy, making analysis of certain sectors challenging. A more detailed approach that sets out the information that would be required to report on this indicator is provided in Appendix D.
Assumptions and uncertainties	The indicator provides information on the trends in the numbers of people employed across key Welsh marine sectors. However, it does not necessarily provide direct evidence that the implementation of WNMP objectives and policies provide economic and social benefits in terms of employment as other drivers may be as or more important in delivering economic growth (e.g. Brexit and trade, UK government macro-economic policies, replacements for structural funds).

https://www.nomisweb.co.uk/

Table C6. Indicator 6

Indicator Number	6
Sub-indicator reference	а-е
Indicator name	Available evidence base
Relevant WNMP objective	4, 5, 7, 10, 13
Relevant WNMP policy	ECON_02 Coexistence
policy	SAF_01 Safeguarding existing activity
	SAF_02 Safeguarding strategic resources
	DEF_01 Defence (safeguarding)
	T&R_01b Tourism and recreation (supporting)
	SOC_01: Access to the marine environment
	SOC_05: Historic assets
	SOC_06: Designated landscapes
	SOC_07: Seascapes
	ENV_01: Resilient marine ecosystems
	ENV_02: Marine Protected Areas
	SCI_01 Risk-based decision making
Indicator type	Activity
Indicator category	Policy
Description	Provision and maintenance of up to date evidence base on public portals, e.g. current status of marine environment, sector maps, resource maps, historic assets, designated landscapes and seascapes, current and potential tourism and recreation activities.
Proposed target	Evidence base available and updated as required.
Rationale	The continuous development and maintenance of an accessible marine planning evidence base will support the implementation, monitoring and review of WNMP objectives and policies. The indicator is seeking to confirm whether up

	to date evidence is available and accessible to decision-makers and applicants. It is an important component in the logic model and demonstrates whether evidence is being made available to support plan and policy implementation. The specific indicator assesses the extent to which relevant evidence is in place and maintained.
Sources of data	NRW website (https://naturalresources.wales/), Wales Marine Planning Portal (http://lle.gov.wales/apps/marineportal/), public authority websites, evidence programmes and interaction with WNMP (e.g. Welsh Marine Evidence Strategy). These sources of data are already currently available. The frequency of data updates will need to be determined in consultation with the website owners.
Methodology	The indicator provides a narrative on the progress that has been made on identifying if available evidence has been collated, is accessible to users and the frequency in which it is updated.
Assumptions and uncertainties	The indicator provides information on whether an evidence base is available and is regularly maintained. However, it does not demonstrate whether the evidence is being used by decision-makers and applicants. It also does not determine if the quality of the data is being improved or is adequate for decision-making.
	It is assumed that maintaining a robust evidence base involves collaborative working with relevant organisations to identify key evidence gaps and ensure resources are shared efficiently and effectively.

Table C7. Indicator 7

Indicator Number	7
Sub-indicator reference	a-b
Indicator name	Climate change and/or marine biodiversity public funding applications and documentation citing WNMP
Relevant WNMP objective	8, 10
Relevant WNMP policy	SOC_08: Resilience to coastal change and Flooding
policy	SOC_09: Effects on coastal change and Flooding
	SOC_10: Minimising climate change
	SOC_11: Resilience to climate change
	ENV_01: Resilient marine ecosystems
	ENV_02: Marine Protected Areas
Indicator type	Activity
Indicator category	Policy
Description	Evidence that public funding applications for projects that support climate change adaptation/resilience at the coast and projects that contribute to the restoration and/or enhancement of marine ecosystems are citing WNMP policies. Evidence that associated funding/grant scheme documentation (guidance notes, selection criteria etc.) are citing WNMP policies.
Proposed target	Increasing trend in number of relevant public funding proposals/applications and associated documentation for coastal/marine climate change adaptation/resilience projects and restoration and/or enhancement of marine ecosystems that refer to the WNMP.
Rationale	The availability of public funding earmarked for coastal/marine climate change adaptation/resilience and restoration and/or enhancement projects will support the implementation of WNMP objectives. The indicator is seeking to confirm whether an increasing number or proportion of public funding applications or associated documentation (e.g. guidance notes, selection criteria etc.) are citing WNMP. It is an important component in the logic

	model and demonstrates whether there is a trend in potential funding opportunities to support plan and policy implementation.
Sources of data	Applications to marine funding streams, including Welsh Government grants, NRW grants, UK grants, European Union grants or their replacement. Funding applications and levels of funding are not publicly available and will need to be requested from relevant departmental bodies. Relevant funding/grant scheme documentation (guidance notes, selection criteria etc.). These should be published online and publicly available. Identifying and reviewing these sources of information will involve a time commitment.
Methodology	The indicator is assessed as the number/proportion of funding applications and associated documentation for coastal/marine climate change adaptation/resilience and restoration and/or enhancement projects that refer to the WNMP. The indicator could also be further developed to monitor how much is subsequently invested to support WNMP policies. The economic methods that are applied would need to take account of inflation (using GDP deflator) to allow current and future monetary values to be compared.
Assumptions and uncertainties	The indicator provides information on the number/proportion of public funding applications and associated documentation that are citing WNMP in support of their application and thus provides an indication of the amount of potential public funding that could be available for relevant projects. However, it does not confirm whether funding is adequate or contributing to material improvements in Welsh coastal/marine environment. It also does not necessarily provide direct evidence that the implementation of WNMP objectives and policies has led to investment as there are many wider factors which drive government budgetary decisions. It is assumed that providing meaningful investment will involve stakeholder engagement to identify opportunities to address key evidence gaps and opportunities for potential projects.

Table C8. Indicator 8

Indicator Number	8
Sub-indicator reference	a-b
Indicator name	Data use
Relevant WNMP objective	7, 8
Relevant WNMP policy	SOC_01: Access to the marine environment
policy	SOC_05: Historic assets
	SOC_06: Designated landscapes
	SOC_07: Seascapes
	SOC_08: Resilience to coastal change and Flooding
	SOC_09: Effects on coastal change and Flooding
	SOC_10: Minimising climate change
	SOC_11: Resilience to climate change
Indicator type	Output
Indicator category	Plan-led decision-making
Description	Evidence that the stakeholders are accessing data for use in applications and to support decision-making. This indicator tracks the use of the marine plan evidence base through monthly web metrics for websites hosting plan products such as the NRW Evidence and Data webpages and the Wales Marine Planning Portal.
Proposed target	Increasing use of evidence and data to support licence applications over time.
Rationale	An increased level and use of evidence will support the implementation of WNMP objectives. The indicator is seeking to confirm if the evidence and data that is available to support licence applications is increasingly being used by applicants and decision-makers. It is an important component in the logic model and demonstrates whether there is an increased use of evidence and data.

	Website analytics (collection, analysis and reporting) of web data can provide an indication of the behaviour of website visitors. Website analytics provide confirmation of planning activity, for example hosting an evidence base and provision of guidance, and to assess and improve the effectiveness of a website by tracking change as a result of dissemination activity and understanding the composition of users or the popularity of downloads or features. Website analytics are readily accessible and widely understood within the digital community. There is standard extraction software that give repeatable methods and yield quantitative data automatically.
Sources of data	NRW website (https://naturalresources.wales/evidence-and-data/) and Marine Planning Portal (http://lle.gov.wales/apps/marineportal/) web statistics. This data can be interrogated and extracted at monthly intervals by the relevant website owner.
Methodology	The indicator is assessed as the extent to which marine plan evidence and data is accessed and downloaded through monthly web metrics. Relevant web metrics include page views, unique visitor numbers, proportion of visits from internal NRW and external IP addresses, view durations and download numbers.
Assumptions and uncertainties	The indicator provides information on the extent to which evidence and data is accessed and downloaded by users. It does not consider whether or how that information is being used to support applications and decision-making. Not all data and information relevant to WNMP is accessed via the NRW website or LLE portal.

Table C9. Indicator 9

Indicator Number	9
Sub-indicator reference	а
Indicator name	Marine renewable energy funding applications citing WNMP
Relevant WNMP objective	3
Relevant WNMP policy	ELC_01a Low carbon energy (supporting) wind
policy	ELC_01b Low carbon energy (supporting) wind
	ELC_02a Low carbon energy (supporting) wave
	ELC_02b Low carbon energy (supporting) wave
	ELC_03a Low carbon energy (supporting) tidal stream
	ELC_03b Low carbon energy (supporting) tidal stream
	ELC_04: Low carbon energy (supporting) tidal range
Indicator type	Activity
Indicator category	Policy
Description	Evidence that public funding applications that support the marine renewable energy sector are citing WNMP policies.
Proposed target	Increasing trend in number of relevant public funding proposals/applications for plan-level enabling work and/or project-level marine renewable development in Welsh waters that refer to the WNMP.
Rationale	Public funding investment to support marine renewable energy development will contribute to the implementation of WNMP objective 3 and associated policies. The indicator is seeking to confirm whether an increasing number or proportion of marine renewable energy funding applications are citing WNMP. Identifying funding opportunities and increased resource is an important component in the logic model and this indicator provides an indication of the trend in potential investment being made to support to support plan and policy implementation.
Sources of data	Applications to marine funding streams, including Welsh Government grants (e.g. Infrastructure Guarantee Fund),

	The Crown Estate's Enabling Actions Fund, UK grants, European Regional Development Fund (ERDF) structural funds (via Welsh European Funding Office, WEFO or successor funds). Funding applications and levels of funding are not publicly available and will need to be requested from the individual data owners.
Methodology	The indicator is assessed as the number/proportion of funding applications supporting marine renewable energy development that refer to the WNMP. This includes work to support the identification of future constraints and opportunities for sustainable development (including working through Offshore Energy Strategic Environment Assessment (OESEA) and with The Crown Estate) and to progress testing and demonstration zones for marine renewable energy projects. The indicator could also be further developed to monitor how much is subsequently invested to support WNMP policies. The economic methods that are applied would need to take account of inflation (using GDP deflator) to allow current and future monetary values to be compared.
Assumptions and uncertainties	The indicator provides information on the number/proportion of public funding applications that are citing WNMP in support of their application and thus provides an indication of the amount of potential public investment that could be available for projects that support marine renewable energy development. However, it does not confirm whether the quality of the evidence base is being improved or if the funding of projects is resulting in improvements in the design and implementation of marine energy development proposals. It also does not necessarily provide direct evidence that the implementation of WNMP objective 3 and associated policies has led to investment as there are many wider factors which drive government budgetary decisions. It is assumed that providing meaningful investment will involve stakeholder engagement to identify opportunities to address key evidence gaps and opportunities for potential projects.

Table C10. Indicator 10

Indicator Number	10
Sub-indicator reference	a
Indicator name	Strategic Resource Areas (SRAs) defined
Relevant WNMP objective	4
Relevant WNMP	ECON_02 Coexistence
policy	SAF_01 Safeguarding existing activity
	SAF_02 Safeguarding strategic resources
	DEF_01 Defence (safeguarding)
Indicator type	Activity
Indicator category	Policy
Description	Evidence that SRAs have been identified by Welsh Government.
Proposed target	SRAs defined for specific sectors if and when these are taken forward.
Rationale	Identifying areas of future resource use opportunities and identifying important resources upon which certain sectors depend through the introduction of SRAs will support the implementation of WNMP objective 4 and associated policies. SRAs are a tool to improve the management of marine activities, space and resources, helping to support the management of sector-sector interactions and providing a focus for further strategic planning. SRAs guide related sector safeguarding policy. Areas safeguarded by an SRA may reflect the long term potential for a sector over the lifetime of the WNMP. Identifying opportunities and constraints for marine resource use (SRAs) is an important component in the logic model and this indicator provides tangible and meaningful evidence of SRAs being defined to support plan and policy implementation.

Development of Indicators For Monitoring and Reporting of the Welsh National Marine Plan | Welsh Government

Sources of data	Welsh Government. The development of SRAs is not currently publicly available and the programme for their development is unknown.
Methodology	The indicator is assessed as the number of SRAs that have been defined (and Marine Plan Notices (MPNs) that have been published) to support the implementation of WNMP objective 4.
Assumptions and uncertainties	The indicator confirms whether SRAs have been defined. It does not identify the overall need for and benefit of the SRA, and whether the SRA is realistic, focussed or meaningful.

Table C11. Indicator 11

Indicator Number	11
Sub-indicator reference	а
Indicator name	Tourism and recreation funding applications citing WNMP
Relevant WNMP objective	5
Relevant WNMP policy	T&R_01a Tourism and recreation (supporting)
	T&R_01b Tourism and recreation (supporting)
Indicator type	Activity
Indicator category	Policy/ Sustainability Appraisal
Description	Evidence that public and private funding applications to support the development of a strategic evidence base for the coastal tourism and recreation sector and to identify areas of future opportunity are citing WNMP policies.
Proposed target	Increasing trend in number of relevant public and private funding proposals/applications for the development of a strategic evidence base for the coastal tourism and recreation sector and to identify areas of future opportunity that refer to the WNMP.
Rationale	The availability of funding for the development of a strategic evidence base for the coastal tourism and recreation sector and to identify areas of future opportunities will support the implementation of WNMP objective 5 and relevant policies. The indicator is seeking to confirm whether an increasing number or proportion of relevant public and private funding applications are citing WNMP. It is an important component in the logic model and demonstrates whether there is a trend in potential funding opportunities to support plan and policy implementation.
Sources of data	Public authorities and tourism and recreation sector. Applications for funding are not publicly available and will need to be requested from the individual data owners e.g.: Public funding:
	Wales Tourism Investment Fund

	- Mioro Croell Dusiness Fund
	Micro Small Business Fund
	Brilliant Basic Fund
	Tourism Product Innovation Fund
	Coastal Communities Fund
	Information on private investment may require a bespoke survey.
Methodology	The indicator is assessed as the number/proportion of public and private funding applications to support the coastal tourism and recreation sector that refer to the WNMP. This includes funding applications on the development of a strategic evidence base and to identify areas of future opportunities. The indicator could also be further developed to monitor how much is subsequently invested to support WNMP policies. The economic methods that are applied would need to take account of inflation to allow current and future monetary values to be compared.
Assumptions and uncertainties	The indicator provides information on the number/proportion of public funding applications that are citing WNMP in support of their application and thus provides an indication of the amount of potential public and private investment that could be available for projects that support the coastal tourism and recreation sector. However, it does not confirm whether funding is adequate, whether the quality of the evidence base is being improved or if the funding is contributing to material improvements for the sector. It also does not necessarily provide direct evidence that the implementation of WNMP objective 5 and associated policies has led to investment as there are many wider factors which contribute to public and private investment decisions. It is assumed that providing meaningful investment will involve effective collaboration and stakeholder engagement to understand opportunities for potential projects.

Table C12. Indicator 12

Indicator Number	12
Sub-indicator reference	а
Indicator name	Increase in coastal and tourism businesses
Relevant WNMP objective	5
Relevant WNMP	T&R_01a Tourism and recreation (supporting)
policy	T&R_01b Tourism and recreation (supporting)
Indicator type	Outcome
Indicator category	Policy / Sustainability Appraisal
Description	Monitor number of Welsh coastal tourism and recreation businesses every 6 years
Proposed target	Increase in the number of and success of businesses associated with the Welsh Marine and Coastal environment.
Rationale	This indicator seeks to identify whether there have been changes in the number of coastal tourism and recreation businesses. It complements information that would be collected under Indicator 4 (GVA) and Indicator 5 (employment)
Sources of data	Wales Tourism Performance reports
	Wales Tourism Barometer
	UK Tourism Survey
	ONS
Methodology	Long-running statistics can be reviewed to determine increases / decreases in the number of coastal tourism / recreation businesses and / or the growth / reduction in current businesses.
	A narrative accompanying this indicator will be important in supporting the consideration of the contribution of the WNMP in any changes observed.

Assumptions and uncertainties	The direct impact of the WNMP is likely to remain uncertain, as many factors may influence the success / failure of coastal recreation and tourism businesses associated with the Welsh coastal or marine environment.
	The statistics available may not be broken down to reflect coastal businesses, therefore further analysis of the available statistics may be required.

Table C13. Indicator 13

Indicator Number	13
Sub-indicator reference	а
Indicator name	Increased Tourism
Relevant WNMP objective	5
Relevant WNMP policy	T&R_01a Tourism and Recreation (supporting)
policy	T&R_01b Tourism and recreation (supporting)
Indicator type	Policy/ Sustainability Appraisal
Indicator category	Evidence that there has been an increase in in tourism visits and associated expenditure
Description	Evidence that there has been an increase in tourism visits and expenditure
Proposed target	Positive trend in metrics defining rates of engagement in recreational activities in the Welsh coastal or marine environment.
Rationale	This indicator seeks to identify evidence that the WNMP is supporting growth in the recreational usage of the coastal and marine environments.
Sources of data	Great Britain Day Visits Survey
	Great Britain Tourism Survey
	Attractions Survey
	Cruise Ship Calendar
	Wales Tourism Performance reports

	Wales Tourism Barometer UK Tourism Survey International Passenger Survey Priorities for the Visitor Economy 2020-2025 Discussions with Tourism Research Unit within WG
Methodology	Long-running statistics can be reviewed to determine increases / decreases in the number of people, visits or expenditure from tourism activities in Welsh coastal locations. A narrative around these statistics is likely to be important in reviewing the contribution of the WNMP in supporting these activities.
Assumptions and uncertainties	The direct impact of the WNMP is likely to remain uncertain, as many factors may influence the levels of tourism in the Welsh marine environment.

Table C14. Indicator 14

Indicator Number	14
Sub-indicator reference	а
Indicator name	Effective implementation of SRA
Relevant WNMP objective	7
Relevant WNMP policy	SOC_01: Access to the marine environment
policy	SOC_05: Historic assets
	SOC_06: Designated landscapes
	SOC_07: Seascapes
Indicator type	Intermediate Outcome
Indicator category	Plan-led decision-making
Description	Proposals and applications submitted utilise the SRA areas once they are developed.
Proposed target	The development process for SRA should consider Access to the marine environment, historic assets, designated landscapes and seascapes when identifying areas of lower

	constraint. Potential constraints considered in the development of the SRA should be recorded.
Rationale	This indicator seeks to identify the effectiveness of the WNMP in protecting valuable landscapes, seascapes and historical assets through the application of SRAs which should identify areas of lower impact.
Sources of data	SRA development process / constraints analysis Marine licence and planning applications
Methodology	Review of planning applications associated with industries for which SRA are developed, to determine if these areas are being used by developers in planning future development.
Assumptions and uncertainties	The level that historic assets, access, designated landscapes and seascapes are impacted by development in SRA is uncertain in comparison to other areas, until such a time that the SRA are developed and undergo assessment. This metric assumes that development within SRA will offer the lowest risk to these receptors.

Table C15. Indicator 15

Indicator Number	15
Sub-indicator reference	а
Indicator name	Recreational use of the marine environment
Relevant WNMP objective	7
Relevant WNMP policy	SOC_01: Access to the marine environment
	SOC_05: Historic assets
	SOC_06: Designated landscapes
	SOC_07: Seascapes
Indicator type	Outcome
Indicator category	Policy
Description	Monitor trends in recreational use of the marine environment broken

Proposed target	Increasing trend in the number of visits to the Welsh coastal / marine environment for the purposes of recreation.
Rationale	This indicator seeks to identify evidence that the WNMP is supporting increased access to the Welsh coastline / marine environment, leading to increased usage of the marine environment for recreational purposes.
Sources of data	Welsh outdoor recreation survey Great Britain Day Visitor Survey (recreational activities only) Attractions Survey
Methodology	Long-running statistics can be reviewed to determine increases / decreases in numbers of visits for the purposes of recreational activities to Welsh coastal locations.
Assumptions and uncertainties	May introduce the need for adaptation to existing surveys / require new surveys if accessibility to lower socio-economic groups is to be assessed. The direct impact of the WNMP is likely to remain uncertain, as many factors may influence the recreational usage of the Welsh marine environment.

Table C16. Indicator 16

Indicator Number	16
Sub-indicator reference	а
Indicator name	Historic Asset Condition
Relevant WNMP objective	7
Relevant WNMP policy	SOC_01: Access to the marine environment
policy	SOC_05: Historic assets
	SOC_06: Designated landscapes
	SOC_07: Seascapes
Indicator type	Outcome
Indicator category	Policy/ Sustainability Appraisal
Description	Report on trends in the condition of historic assets, percentages of designated assets that are in stable / improved / deteriorating conditions.
Proposed target	Increase in the proportion of assets that are in stable / improved condition as opposed to deteriorating
Rationale	This indicator seeks to identify evidence that the WNMP is supporting improved protection and / or management of historic assets in the Welsh marine environment.
Sources of data	CADW and WG sources for historic asset condition
Methodology	CADW and WG may hold data on historic asset condition, assessment of which can be used to identify any trends in the overall condition of historic assets in Wales.
Assumptions and uncertainties	This indicator is based on an assumption that historic asset condition data is held and managed (including updating) on a regular basis in order that trends can be identified. Where such data is not available, CADW / RCAHMW input into Indicator 3 will be important in supporting assessment of impact on Historic Asset condition. Uncertainties arise as there are a wide range of factors that may influence historic asset condition, and as such demonstrating that any changes are related to the WNMP is difficult. Similarly, the likely changes to

historic asset condition in the absence of the plan (i.e. the counterfactual) is difficult to determine.

Table C17. Indicator 17

Indicator Number	17
Sub-indicator reference	а
Indicator name	Scale of renewable energy sector
Relevant WNMP objective	8
Relevant WNMP policy	SOC_10: Minimising climate change
policy	ELC_01a Low carbon energy (supporting) wind
	ELC_01b Low carbon energy (supporting) wind
	ELC_02a Low carbon energy (supporting) wave
	ELC_02b Low carbon energy (supporting) wave
	ELC_03a Low carbon energy (supporting) tidal stream
	ELC_03b Low carbon energy (supporting) tidal stream
	ELC_04: Low carbon energy (supporting) tidal range
Indicator type	Output
Indicator category	Plan-led decision-making
Description	Statistics in the types of Marine Licence / Planning Applications, including specifically renewable energy in marine environment and statistics of scale of installed renewable energy.
Proposed target	A positive trend in the number and scale of installed renewable energy and applications for future capacity in the Welsh marine environment
Rationale	This indicator seeks to identify evidence to demonstrate that the WNMP is supporting the minimisation of the contribution of Wales to climate change through the development of renewable energy in the Welsh marine environment.
Sources of data	Marine licence and planning applications

	Welsh Government Energy Sector Statistics
Methodology	Review of trends in the number/scale of installed or proposed renewable energy projects within the Welsh marine environment. Can be identified through quick assessment of the Marine Licensing sharepoint folders (renewable applications are tagged Offshore Renewable Marine Licence (ORML)) and through assessment of energy sector statistics which detailed installed renewable energy capacity. Further detail within this indicator may be gleaned through review of the number of applications successfully being permitted / being returned.
Assumptions and uncertainties	There is uncertainty in the level of industry growth or similar applications that would be submitted in the absence of the plan (the counterfactual), therefore the proportion of applications influenced by the plan is likely to remain uncertain.

Table C18. Indicator 18

Indicator Number	18
Sub-indicator reference	а
Indicator name	Conformance with SMP policies
Relevant WNMP objective	8
Relevant WNMP policy	SOC_08: Resilience to coastal change and Flooding
policy	SOC_09: Effects on coastal change and Flooding
	SOC_10: Minimising climate change
	SOC_11: Resilience to climate change
Indicator type	Intermediate outcome
Indicator category	Plan-led decision-making/ Sustainability Appraisal
Description	Review of applications and their conformance with SMP policies.
Proposed target	That all applications relevant to coastal asset management conform with SMP policies.

Rationale	This indicator seeks to identify the impact of the WNMP in emphasising the requirement for planning applications to refer and adhere to the policies contained within the SMPs.
Sources of data	Marine Licence and planning applications
Methodology	Review of coastal schemes to identify any applications which do not comply with SMP policy (e.g. sea wall repair in MR or NAI policy unit).
Assumptions and uncertainties	There is uncertainty as to the likely counterfactual (i.e. the number of applications not in conformance with the SMPs in the absence of the plan). Therefore, the contribution of the WNMP to preventing non-conforming applications is uncertain.
	In addition, applications for maintenance of coastal defences are currently only required for third parties (NRW and Local Authorities are exempt) and therefore applications do not represent the true scale of works being undertaken. There is not a known repository of data for Local Authority and NRW maintenance works.

Table C19. Indicator 19

Indicator Number	19
Sub-indicator reference	а
Indicator name	Impact of coastal flooding
Relevant WNMP objective	8
Relevant WNMP policy	SOC_08: Resilience to coastal change and Flooding
	SOC_09: Effects on coastal change and Flooding
	SOC_10: Minimising climate change
	SOC_11: Resilience to climate change
Indicator type	Outcome
Indicator category	Policy
Description	Trends in the success of coastal defence assets, with review of pre-WNMP / post-WNMP coastal assets.

Proposed target	Reduction in the incidence of coastal flooding where post-WNMP coastal assets are present, in comparison to pre-WNMP coastal assets.
Rationale	This indicator seeks to identify the impact of the WNMP on ensuring that new coastal assets build resilience to coastal change and flooding into their design.
Sources of data	Statistics on incidence of coastal flooding and failure of coastal assets, recorded by NRW.
Methodology	The indicator is measured through a comparison of coastal flooding incidence associated with new (post-WNMP) coastal assets against old (pre-WNMP) coastal assets.
Assumptions and uncertainties	The output of this indicator is based on the assumption that improved resilience to coastal flooding events can be attributed to the WNMP requirement to consider resilience to climate change / coastal flooding. In reality it is difficult to establish the level of resilience that would be expected in the absence of the plan (the counterfactual), as improved resilience could be attributed to a number of factors, e.g. improved coastal process modelling, improved predictions for future climate / coastal flooding scenarios, as well as the impact of the WNMP.

Table C20. Indicator 20

Indicator Number	20
Sub-indicator reference	а
Indicator name	INNS Distribution
Relevant WNMP objective	9
Relevant WNMP policy	ENV_01: Resilient marine ecosystems
policy	ENV_02: Marine Protected Areas
	ENV_03: Invasive non-native species
	GOV_01: Cumulative effects
Indicator type	Intermediate Outcome
Indicator category	Policy
Description	Data on the presence of new or the spread of currently recorded INNS in the Welsh marine area.
Proposed target	Progress is reported against targets identified under MSFD. Reduction in the rate of spread in long term trend analysis.
Rationale	The indicator seeks to identify evidence that the WNMP policies are supporting progress in the management or INNS in the Welsh environment. This is principally assessed through analysis of progress against pre-set criteria and targets identified within the MSFD.
Sources of data	MSFD reporting statistics, broken down for Wales only (confirmed as available)
Methodology	Review of the MSFD reporting for Welsh seas (every 6 years). Review of any published data on the spread of or abundance of INNS in the Welsh marine environment.
Assumptions and uncertainties	There is uncertainty as to the ongoing requirement for reporting under the MSFD, specifically with regard to Britain's exit from the EU. Assuming that requirements for progress under the Directive are ongoing, the Directive itself places a requirement on a Member State to implement measures to support achievement of GES, and therefore the impact of the WNMP on the progress against this indicator is likely to remain unknown. However, should Britain's Exit from the EU reduce

requirements under the MSFD, the WNMP may become more influential in continuing monitoring and progress against the targets previously identified.

Table C21. Indicator 21

Indicator Number	21
Sub-indicator reference	а
Indicator name	Marine Litter
Relevant WNMP objective	9
Relevant WNMP policy	ENV_01: Resilient marine ecosystems
policy	ENV_02: Marine Protected Areas
	ENV_04: Marine litter
	ENV_07: Fish Species and Habitats
	GOV_01: Cumulative effects
Indicator type	Intermediate Outcome
Indicator category	Policy
Description	Data on the presence of marine litter, and exposure to or impacts on marine species.
Proposed target	Progress is reported against targets identified under MSFD. Reduction in the incidence / recorded impacts in long term trend analysis for academic research.
Rationale	The indicator seeks to identify evidence that the WNMP policies are supporting progress in the management of Marine Litter in the Welsh environment. This is principally assessed through analysis of progress against pre-set criteria and targets identified within the MSFD.
Sources of data	MSFD reporting statistics, academic research
Methodology	Review of the MSFD reporting for Welsh seas (every 6 years). broken down for Wales only (confirmed as available). Review of any published data for long term studies on impacts of marine litter.

Assumptions and uncertainties	There is uncertainty as to the ongoing requirement for reporting under the MSFD, specifically with regard to Britain's exit from the EU. Assuming that requirements for progress under the Directive are ongoing, the Directive itself places a requirement on a Member State to implement measures to support achievement of GES, and therefore the impact of the WNMP on the progress against this indicator is likely to remain unknown. However, should Britain's Exit from the EU reduce requirements under the MSFD, the WNMP may become more influential in continuing monitoring and progress against the targets previously identified.
	With regards to the impact of Marine Litter in the Welsh environment, there is uncertainty as to the degree that improvements made in waste management will impact the volume of litter present i.e. some litter may not be from local or recent sources. Therefore, the impact of the WNMP may not be observed in the MSFD statistics.

Table C22. Indicator 22

Indicator Number	22
Sub-indicator reference	а
Indicator name	GES determination
Relevant WNMP objective	9
Relevant WNMP	ENV_01: Resilient marine ecosystems
policy	ENV_02: Marine Protected Areas
	ENV_03: Invasive non-native species
	ENV_04: Marine litter
	ENV_05: Underwater noise
	ENV_06: Air and water quality
	ENV_07: Fish Species and Habitats
	GOV_01: Cumulative effects
Indicator type	Outcome
Indicator category	Policy / Sustainability Appraisal

Description	Review of progress towards targets or achieving GES / GeS under the WFD and MSFD.
Proposed target	A positive trend towards the achievement of GES / GeS is reported against WFD / MSFD for Welsh waters
Rationale	The WFD and MSFD provide a measure of the Environmental status of Welsh Seas, with specific targets against which progress should be measured. Progress against these targets provides an indication as to improvements in the Environmental status.
Sources of data	MSFD / WFD Reporting
Methodology	Review of the MSFD broken down for Wales only (confirmed as available) / WFD reporting for Welsh seas (every 6 years)
Assumptions and uncertainties	There is uncertainty as to the ongoing requirement for reporting under the MSFD and WFD, specifically with regard to Britain's exit from the EU. Assuming that requirements for progress under these Directives are ongoing, the Directives themselves place requirements on a Member State to implement measures to support achievement of GES / GeS, and therefore the impact of the WNMP on the progress against this indicator is likely to remain unknown. However, should Britain's Exit from the EU reduce requirements under the MSFD / WFD, the WNMP may become more influential in continuing monitoring and progress against the targets previously identified.

Table C23. Indicator 23

Indicator Number	23
Sub-indicator reference	а
Indicator name	Number of restoration / enhancement projects
Relevant WNMP objective	10
Relevant WNMP policy	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas
Indicator type	Output
Indicator category	Policy/ Sustainability Appraisal

Description	Trends in the number/scale (area) of projects implemented which contribute to restoration / enhancement of the coastal/marine environment.
Proposed target	Increasing trend in the number of projects / proposals submitted which contribute to restoration / enhancement of the Welsh coastal/marine environment.
Rationale	The indicator is seeking to determine if there is evidence to indicate that marine plan policies are encouraging applications to restore or enhance coastal/marine natural habitat
Sources of data	Marine licence and planning applications
Methodology	The indicator is assessed as the number/area of licence applications which contribute to the restoration / enhancement of the Welsh coastal/marine environment.
Assumptions and uncertainties	There is uncertainty in the level of similar applications that would be submitted in the absence of the plan (the counterfactual), therefore the proportion of applications influenced by the plan is likely to remain uncertain.

Table C24. Indicator 24

Indicator Number	24
Sub-indicator reference	а
Indicator name	Designated site condition assessments
Relevant WNMP objective	11
Relevant WNMP policy	ENV_01: Resilient marine ecosystems ENV_02: Marine Protected Areas
Indicator type	Intermediate Outcome
Indicator category	Policy/ Sustainability Appraisal
Description	Review of the outputs of designated site condition assessments.
Proposed target	Site condition assessments indicating features are either Favourable maintained, Favourable recovered or Unfavourable recovering
Rationale	This indicator aims to determine if there is evidence that implementation of the WNMP is having positive impacts on designated sites.
Sources of data	Designated site condition assessments
Methodology	Site condition assessments are undertaken every six years, with each feature defined as either Favourable, Unfavourable recovering, Unfavourable or Destroyed (partly or completely). Statistics on the condition of features in Natura2000 sites will be collected from the site condition assessments and used to determine progress in supporting recovery or sustaining favourable status.
Assumptions and uncertainties	Under the Habitat and Birds Directives there is a responsibility placed on member states for Natura2000 sites to be managed in such a way as to achieve favourable status, and there is therefore already an MPA management framework and work ongoing to deliver the priorities of the NRW Site Improvement Plans. This requirement and ongoing process could therefore be considered the key driver in improvements observed, therefore the contribution of the WNMP to designated site management is likely to remain uncertain. While the outcome is therefore primarily driven by

nature conservation objectives, the WNMP also encourages activities that contribute to improvement.
There is uncertainty in the condition of sites in the absence of the plan (the counterfactual), therefore the extent of influence by the plan is likely to remain uncertain.

Table C25. Indicator 25

Indicator Number	25
Sub-indicator reference	а
Indicator name	Marine Evidence Strategy
Relevant WNMP objective	13
Relevant WNMP policy	SCI_01 Risk-based decision making
Indicator type	Output
Indicator category	Policy
Description	Progress with development and implementation of Marine Evidence Strategy
Proposed target	Continual progress towards completion of evidence action plans
Rationale	This target seeks to identify progress on development of the evidence base within Wales to support risk based decision making. The Welsh Marine Evidence Strategy (2019-2025) ⁶ was published in September 2019 and identifies current evidence priorities alongside process for action planning to meet these requirements.
Sources of data	Welsh Government Website

⁶ NRW and Welsh Government (2019). Welsh Marine Evidence Strategy 2019-2025 A collaborative agenda for marine research, monitoring and analysis. Available online at: https://gov.wales/sites/default/files/publications/2019-09/welsh-marine-evidence-strategy_0.pdf

Methodology	Within the Welsh Marine Evidence Strategy, provision is made for a Welsh Government and NRW panel to monitor the implementation of evidence action plans on an annual basis, with outputs documented and reported online. These outputs will be reviewed, with progress against action plans recorded.
Assumptions and uncertainties	The Welsh Marine Evidence Strategy is separate to the WNMP, and therefore evidence baseline development cannot be directly attributed to the Plan. In addition, the existence of improved data does not directly mean that this data is being used to support risk-based decision making.
	There is uncertainty in the level of Strategy implementation in the absence of the plan (the counterfactual), therefore the impact of the WNMP is likely to remain uncertain.

D Proposed Methodology for Indicator 4: Welsh Marine GVA

In order to assess Welsh Marine GVA, methodologies used previously in other regions (MMO, 2014 and MMO, 2016b) have been reviewed, and updated where required based on more up to date knowledge of the industry, to develop the following proposed methods. The methodologies have, where possible, been kept consistent across all industries although in some cases bespoke consideration of industry data has been required. In order to attempt to limit data manipulation required, for the majority of sectors only data for coastally linked Local Authorities (LA) (Table D1) should be included in calculations for coastally linked Local Authorities) (excluding Aggregates and Energy (Low Carbon) sectors, discussed below).

Table D1. Coastally Linked Local Authority Areas

Bridgend Cardiff Carmarthenshire Ceredigion Conwy Denbighshire Flintshire Gwynedd Isle of Anglesey Monmouthshire Neath Port Talbot Newport Pembrokeshire Swansea Vale of Glamorgan	Coastally Linked Local Authority Areas
Carmarthenshire Ceredigion Conwy Denbighshire Flintshire Gwynedd Isle of Anglesey Monmouthshire Neath Port Talbot Newport Pembrokeshire Swansea	Bridgend
Ceredigion Conwy Denbighshire Flintshire Gwynedd Isle of Anglesey Monmouthshire Neath Port Talbot Newport Pembrokeshire Swansea	Cardiff
Conwy Denbighshire Flintshire Gwynedd Isle of Anglesey Monmouthshire Neath Port Talbot Newport Pembrokeshire Swansea	Carmarthenshire
Denbighshire Flintshire Gwynedd Isle of Anglesey Monmouthshire Neath Port Talbot Newport Pembrokeshire Swansea	Ceredigion
Flintshire Gwynedd Isle of Anglesey Monmouthshire Neath Port Talbot Newport Pembrokeshire Swansea	Conwy
Gwynedd Isle of Anglesey Monmouthshire Neath Port Talbot Newport Pembrokeshire Swansea	Denbighshire
Isle of Anglesey Monmouthshire Neath Port Talbot Newport Pembrokeshire Swansea	Flintshire
Monmouthshire Neath Port Talbot Newport Pembrokeshire Swansea	Gwynedd
Neath Port Talbot Newport Pembrokeshire Swansea	Isle of Anglesey
Newport Pembrokeshire Swansea	Monmouthshire
Pembrokeshire Swansea	Neath Port Talbot
Swansea	Newport
	Pembrokeshire
Vale of Glamorgan	Swansea
Ŭ	Vale of Glamorgan

The Table D2 summarises the outputs of the methodologies for each sector, based on only Level 5 SIC code data for Employment being available. Although not routinely produced or available Level 5 SIC code data for GVA is likely to be available as a bespoke data product from the ONS. Should this be used then the GVA per employee column can be disregarded. However the use of Level 5 SIC code GVA data will subsequently require consideration of discounting, to ensure that year on year statistics are directly comparable.

For Energy (Low Carbon), Tourism and Aggregates a bespoke consideration of data has been used to apportion the SIC code data (which includes terrestrial data) for purely Marine applications. The methodologies, which necessitate the use of Country level data (i.e. not limited to coastal LA areas as above) are as follows:

D.1 Aggregates

Based on the Mineral extraction in Great Britain 2014 report produced for the Department for Communities and Local Government (DCLG, 2014) it can be estimated that approximately 2% of the aggregates produced in Wales come from Marine sources.

The use of this 2% figure in apportioning against the SIC codes was tested, and found to produce comparable figures (48.5 direct and indirect jobs) to those suggested by a) the Mineral extraction in Great Britain 2014 report (DCLG, 2014) itself (Approximately 65 direct and indirect jobs) and figures suggested by apportioning the Mineral Products Association data (MPA, 2018) (43.5 direct and indirect jobs). Although all three methodologies produce approximately the same figure, it is suggested that given the known regularity of the ONS data production, the use of apportioned SIC code data is most appropriate.

D.2 Energy (Low Carbon)

There are no SIC codes which are directly applicable to the production of low carbon energy in the marine environment. Therefore, a methodology has been developed to apportion SIC Code 35110 (production of electricity). Based on current data⁷ it is approximated that 7.3% of total electricity production in Wales comes from renewable sources in the Marine Environment. This figure has therefore been proposed to apportion the SIC code. It is recognised that the proportion of energy produced from renewable sources in the marine environment is likely to be variable, and therefore this figure should be updated using the most recent statistics for each assessment period. Data sources may include updated versions of the referenced report, or separately reported statistics, such as those produced for Low Carbon Energy by the Welsh Government⁸.

Welsh Government (2019) Energy Generation in Wales 2018. Written and produced by Regen for the Welsh Government, ISBN 978-1-83933-191-6.

⁸ https://statswales.gov.wales/Catalogue/Environment-and-Countryside/Energy

D.3 Tourism and Recreation

There are a number of SIC codes which are applicable to tourism. However, these do not break out coastal tourism from more inland visits. Therefore, a proposed methodology has been developed to apportion the SIC codes. Data from the GB Day Visits Survey⁹ and GB Tourism Survey¹⁰ (overnight stays) are available at a Local Authority Level and provide a proportion of visitors for whom the coast or marine environment is a key motivator in their visit.

Therefore, for each Local Authority in Table D1 above, the SIC codes described in Table D2 below for Tourism and Recreation can be apportioned by the percentage of visitors for whom the coast is important. Depending on the definition of the SIC code, this should either be based entirely on the GB Tourism Survey (referenced as '1' in Table D2) or on an average of the proportions from the two surveys (referenced as '1/2' in Table D2). i.e. accommodation based SIC codes should be entirely based on the GB Tourism Survey (1), whereas day activities should be based on an average between the two (1/2).

https://data.gov.uk/dataset/02947eb6-46ea-4418-8500-68b9c425914b/gb-

tourism-survey

day-visits-survey

https://data.gov.uk/dataset/46cfe314-7814-4331-a48b-06e96238e3fa/gb-

Table D2. Sector Specific Employment and GVA calculations

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
Reference s	MMO10 75 / MMO11 19	with some edits (e.g. removal of preparation of meals from fisheries contribution to the marine economy / removal of freshwater aquaculture which is not marine related in Wales)	MMO1075 (with exception of Aggregates and Renewables which are bespoke approaches to apportion)	Scottish Multipliers as referenced in MMO1119	Scottish Multipliers as referenced in MMO1119	
Aggregate s	08120	Operation of gravel and sand pits; mining of clays and kaolin	2%	1.42	£59,260.00	Note: All Wales statistics for SIC codes should be used here, as % is total for Wales not limited to coastal LA. Consideration was given to the use of sector specific reports as an alternative methodology, however this was considered more likely to underestimate the true contribution of Marine Aggregates in Wales, as a significant proportion of Welsh Aggregate producers

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						are not captured in the BMAPA reporting.
Aggregate s	08110	Quarrying of ornamental and building stone, limestone, gypsum, chalk and slate	2%	1.42	£59,260.00	Note: All Wales statistics for SIC codes should be used here, as % is total for Wales not limited to coastal LA. Consideration was given to the use of sector specific reports as an alternative methodology, however this was considered more likely to underestimate the true contribution of Marine Aggregates in Wales, as a significant proportion of Welsh Aggregate producers are not captured in the BMAPA reporting.
Aquacultur e	03210	Marine aquaculture	100%	1.57	£20,450.00	No Freshwater Aquaculture was included, as this is not considered to be applicable to the marine environment in Wales.

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
Defence	84220	Defence activities	TBC	TBC	TBC	There is significant uncertainty around the defence sector, due to the confidential nature of some activity. It is not considered an important metric to consider for the evaluation of the WNMP.
Dredging	N/A	#N/A				Aggregates & Ports / Shipping are considered likely to capture all dredging related activity.

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
Fisheries	03110	Marine fishing	100%	0 (would include fish processing SIC10200 and see note)	£20,450.00	There is some uncertainty around the multiplier used for SIC Code 03110. The use of the ports / shipping multiplier of the fish processing multiplier, was considered, however much of this activity will already be captured in other sectors or under the fish processing. i.e. ship maintenance etc, however this is captured in ports / shipping already.
Fisheries	10200	Processing and preserving of fish, crustaceans and molluscs	100%	1.9	£20,450.00	There is some uncertainty around the multiplier used for SIC Code 03110. The use of the ports / shipping multiplier of the fish processing multiplier, was considered, however much of this activity will already be captured in other sectors or under the fish processing. i.e. ship maintenance etc, however this is captured in ports / shipping already.

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
O&G	06100	Extraction of crude petroleum	100%	1.42	£176,800	There is no current onshore activity in Wales, therefore all employment is considered to be linked to the offshore marine environment.
O&G	06200	Extraction of natural gas	100%	1.42	£176,800	There is no current onshore activity in Wales, therefore all employment is considered to be linked to the offshore marine environment.
Energy (LC)	35110	Production of electricity	7%	3.5	£66,250.00	Note: All Wales statistics for SIC codes should be used here, as % is total for Wales not limited to coastal LA.
Ports & Shipping	30110	Building of ships and floating structures	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier across all Ports and Shipping related SIC codes as multiplication for some codes may include the other

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						codes (e.g. transport of goods by water multiplier may include shipbuilding).
Ports & Shipping	30120	Building of pleasure and sporting boats	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier across all Ports and Shipping related SIC codes as multiplication for some codes may include the other codes (e.g. transport of goods by water multiplier may include shipbuilding).
Ports & Shipping	33150	Repair and maintenance of ships and boats	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier across all Ports and Shipping related SIC codes as multiplication for some codes may include the other codes (e.g. transport of goods by water multiplier may include shipbuilding).

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
Ports & Shipping	50100	Sea and coastal passenger water transport	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier across all Ports and Shipping related SIC codes as multiplication for some codes may include the other codes (e.g. transport of goods by water multiplier may include shipbuilding).
Ports & Shipping	50200	Sea and coastal freight water transport	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier across all Ports and Shipping related SIC codes as multiplication for some codes may include the other codes (e.g. transport of goods by water multiplier may include shipbuilding).
Ports & Shipping	52101	Operation of warehousing and storage facilities for	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
		water transport activities of division 50				across all Ports and Shipping related SIC codes as multiplication for some codes may include the other codes (e.g. transport of goods by water multiplier may include shipbuilding).
Ports & Shipping	52220	Service activities incidental to water transportation	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier across all Ports and Shipping related SIC codes as multiplication for some codes may include the other codes (e.g. transport of goods by water multiplier may include shipbuilding).
Ports & Shipping	52241	Cargo handling for water transport activities of division 50	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier across all Ports and Shipping related SIC codes as multiplication for some codes may include the other

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						codes (e.g. transport of goods by water multiplier may include shipbuilding).
Ports & Shipping	77341	Renting and leasing of passenger water transport equipment	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier across all Ports and Shipping related SIC codes as multiplication for some codes may include the other codes (e.g. transport of goods by water multiplier may include shipbuilding).
Ports & Shipping	77342	Renting and leasing of freight water transport equipment	100%	2.53	£53,011.00	It is considered that there may be a potential overestimate in the application of the multiplier across all Ports and Shipping related SIC codes as multiplication for some codes may include the other codes (e.g. transport of goods by water multiplier may include shipbuilding).

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
Subsea Cabling	61100	Wired telecommunications activities	10%	1.18	£70,423.00	Potential underestimate in employment multiplier (offshore cabling is likely to require additional indirect activity (survey etc) when compared to terrestrial activities.
Surface Water & Wastewat er Treatment & Disposal (SWW)	N/A	#N/A	N/A	N/A	N/A	SWW does not have indicators around development of GVA and Employment, as policy objectives do not specify supporting it as a marine industry- not considered to be part of the 'marine economy'.
Tourism and Recreation	55100	Hotels and similar accommodation	TBC (1)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						of 100% of the SIC codes will be overestimates. Based on the methodology described above, the codes can be apportioned by the percentage of visitors for whom the coast is a key factor. Where (1) is recorded, this should be based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	55201	Holiday centres and villages	TBC (1)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use of 100% of the SIC codes

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						will be overestimates. Based on the methodology described above, the codes can be apportioned by the percentage of visitors for whom the coast is a key factor. Where (1) is recorded, this should be based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	55202	Youth hostels	TBC (1)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use of 100% of the SIC codes will be overestimates.

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						Based on the methodology described above, the codes can be apportioned by the percentage of visitors for whom the coast is a key factor. Where (1) is recorded, this should be based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	55209	Other holiday and other short-stay accommodation (not including holiday centres and villages or youth hostels)	TBC (1)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use of 100% of the SIC codes will be overestimates. Based on the methodology

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						described above, the codes can be apportioned by the percentage of visitors for whom the coast is a key factor. Where (1) is recorded, this should be based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	55300	Camping grounds, recreational vehicle parks and trailer parks	TBC (1)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use of 100% of the SIC codes will be overestimates. Based on the methodology described above, the codes

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						can be apportioned by the percentage of visitors for whom the coast is a key factor. Where (1) is recorded, this should be based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	79901	Activities of tourist guides	TBC (1/2)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use of 100% of the SIC codes will be overestimates. Based on the methodology described above, the codes can be apportioned by the

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						percentage of visitors for whom the coast is a key factor. Where (1) is recorded, this should be based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	91020	Museum activities	TBC (1/2)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use of 100% of the SIC codes will be overestimates. Based on the methodology described above, the codes can be apportioned by the percentage of visitors for

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						whom the coast is a key factor. Where (1) is recorded, this should be based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	91030	Operation of historical sites and buildings and similar visitor attractions	TBC (1/2)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use of 100% of the SIC codes will be overestimates. Based on the methodology described above, the codes can be apportioned by the percentage of visitors for whom the coast is a key

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						factor. Where (1) is recorded, this should be based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	91040	Botanical and zoological gardens and nature reserve activities	TBC (1/2)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use of 100% of the SIC codes will be overestimates. Based on the methodology described above, the codes can be apportioned by the percentage of visitors for whom the coast is a key factor. Where (1) is

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						recorded, this should be based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	93210	Activities of amusement parks and theme parks	TBC (1/2)	1.22	£19,060.00	MMO1075 makes assumption that all tourism activity in coastally linked Local authority areas are inherently linked to the marine environment. However, LA areas are large with generally a proportion of non-coastal areas, and therefore the use of 100% of the SIC codes will be overestimates. Based on the methodology described above, the codes can be apportioned by the percentage of visitors for whom the coast is a key factor. Where (1) is recorded, this should be

Sector	SIC Code(s)	SIC Title	% of SIC Code Considered Marine	Indirect Employment Multiplier	GVA Per Employee*	Comments
						based on the GB Tourism Survey (overnight stays). Where (1/2) is recorded, this should be based on an average between the GB Tourism Survey and GB Day Visitor Survey.
Tourism and Recreation	93290	Other amusement and recreation activities	TBC (1/2)	1.22	£19,060.00	50% considered tourism, 50% considered recreation
Tourism and Recreation	55900	Other accommodation	TBC (1)	1.22	£20,540.00	£20,540 for recreation activities.
Tourism and Recreation	93120	Activities of sport clubs	10%	1.22	£20,540.00	£20,540 for recreation activities.
Tourism and Recreation	93199	Other sports activities	10%	1.22	£20,540.00	£20,540 for recreation activities.

TBC – to be confirmed (see proposed methodology for apportioning of the SIC code in Section D3).

Contact Us

ABPmer

Quayside Suite, Medina Chambers Town Quay, Southampton SO14 2AQ

T +44 (0) 23 8071 1840 F +44 (0) 23 8071 1841 E enquiries@abpmer.co.uk

www.abpmer.co.uk

