

Measure 11

Shoreline Management Plan Policy
Delivery in Wales / Cyflawni Polisi
Cynlluniau Rheoli'r Traethlin yng Nghymru

July 2026
Wales Coastal Group Forum



**Welsh Coastal
Groups Forum**

Foreword:

This report marks a significant milestone in delivering the Welsh Government’s commitment to sustainable coastal risk management. It provides a transparent assessment of how Shoreline Management Plan (SMP) policies have been implemented during Epoch 1 (2005–2025). The findings will inform future investment, adaptation planning, and collaborative action across Welsh coastal communities. We thank all Coastal Group members and partners for their contributions to this process.

Rhagair:

Mae’r adroddiad hwn yn nodi carreg filltir arwyddocaol wrth gyflawni ymrwymiad Llywodraeth Cymru i reoli risg arfordirol yn gynaliadwy. Mae’n darparu asesiad tryloyw o sut y mae polisiau’r Cynllun Rheoli Traethlin (SMP) wedi’u gweithredu yn ystod Cyfnod 1 (2005–2025). Bydd y canfyddiadau yn llywio buddsoddiad yn y dyfodol, cynllunio addasu, a gweithredu ar y cyd ar draws cymunedau arfordirol Cymru. Rydym yn diolch i holl aelodau’r Grwpiau Arfordirol a’r partneriaid am eu cyfraniadau i’r broses hon.

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Executive Summary:

This Measure 11 report provides a national, high-level assessment of how effectively Wales has implemented Shoreline Management Plan (SMP) Epoch 1 (2005–2025) policies across the Welsh coastline. SMPs set a long-term (100-year) strategic framework for managing coastal flooding and erosion risk, balancing protection of communities and infrastructure with environmental sustainability. Measure 11, one of the measures within the Welsh National Strategy for Flood and Coastal Erosion Risk Management, requires Coastal Groups, via the Wales Coastal Group Forum (WCGF), to report on delivery of Epoch 1 SMP policies by 2025. The findings provide an evidence-based baseline to inform Epoch 2 (2025–2055) planning, future investment priorities, and coordinated action to strengthen long-term coastal resilience in Wales.

Key Findings:

1) Wales has delivered strong overall compliance

- Across **473 Policy Units** (1,914 km of coast), Wales achieved **90.1% compliance with Epoch 1 policies** (426 of 473 Policy Units compliant) (1,725 km out of 1,914 km of coast).
- 47 Policy Units (189 km of coast) were identified as non-compliant, often with more than one barrier per unit.

2) Traditional FCERM approaches are being delivered while more adaptive approaches are a challenge

Epoch 1 policy delivery differs strongly by policy type:

- **Hold the Line (HTL): 223 Policy Units – 98.2% compliant.**
- **No Active Intervention (NAI): 178 Policy Units – 98.3% compliant.**
- **Managed Realignment (MR): 72 Policy Units – 44.4% compliant.**

Wales has been highly successful where policy intent aligns with established funding/maintenance models (HTL) or where there is “no need to defend” (many NAI locations). The implementation gap is concentrated in MR where delivery requires stakeholder coordination, land agreements, and often non-standard investment and governance arrangements.

3) The SMP landscape is shifting toward adaptation in Epoch 2 and 3

Across Wales, SMP intent shifts markedly away from HTL over time. The policy “centre of gravity” moves toward MR/NAI, but MR is currently the least deliverable policy type. Unless MR delivery constraints are addressed early in Epoch 2, national compliance could fall as the proportion of adaptive policies increases.

4) Investment and enabling programmes have supported delivery

The report highlights multiple investment and enabling inputs that underpin compliance, including:

- **More than £291m** Welsh Government Coastal Risk Management Programme support, funding **15 major capital coastal defence projects** in **8 local authorities** over **2019 – 2024**.
- **£75m** further Natural Resources Wales (NRW) funding during Epoch 1 supporting **9 major coastal/tidal projects**.
- Nearly **£3.3m** Welsh Government funding supporting the Wales Coastal Monitoring Centre (WCMC), including surveys of more than 13,000 beach profiles and >2,190 km of coastline, development of a national data platform, and wider capacity building.

Sustained evidence, monitoring, and capital programmes have helped Wales deliver HTL and large parts of NAI. Similar enabling structures tailored to adaptation will be needed for MR and for emerging “cease to maintain” situations in Epoch 2.

Cross-cutting barriers (impacting MR and NAI policy implementation)

Although only ~10% of Policy Units are non-compliant, the reported barriers are systemic and recurring, particularly for adaptive approaches. The most evidenced barriers include:

- **Resource / capacity constraints:** referenced across **25 Policy Units** as a primary barrier, also a frequent co-factor (including **24 of 40** non-compliant MR units).

- **Funding constraints & partnership working complexities:** cited in **22 Policy Units**, current appraisal and funding approaches can disadvantage MR, habitat creation and long-term adaptation investments.
- **Land ownership complexities:** cited in **14 Policy Units**, creating delays/costs and liability uncertainty where private assets and responsibilities are unclear.
- **Infrastructure dependencies (including highways, public rights of way):** cited in **14 Policy Units**, where relocation/protection adds cost, complexity, and stakeholder requirements.
- **Unknown asset ownership:** cited in **4 Policy Units**, complicating both action and the communication of future management intent

Barriers impacting MR implementation

MR non-compliance is most strongly associated with:

- **Funding constraints:** **15 Policy Units** cite funding as the primary barrier.
- **Land ownership issues:** **11 Policy Units** cite ownership conflicts/uncertainty or misalignment with SMP intent.
- **Resource /capacity limitations:** **6 Policy Units** cite staffing and specialist capacity as primary barriers (and capacity is cited as a frequent co-factor more broadly).
- Additional constraints include infrastructure dependencies (e.g., roads/rail/utilities), competing priorities, and public rights of way (including the Wales Coast Path).

Strategic implications for Epoch 2 (2025 – 2055)

Wales has achieved remarkable success in delivering Epoch 1 policies, but the next phase of coastal management will require a shift from traditional defence to proactive adaptation. Addressing systemic barriers such as funding, capacity, and ownership clarity will be critical to maintain compliance and deliver sustainable outcomes. The report flags risks if barriers persist:

- **Policy drift toward reactive protection:** Without early planning for transitions, decisions may default to short-term, reactionary measures that challenge SMP intent.
- **Rising whole-life costs and exposure:** Delayed adaptation can increase long-term costs and risk to communities and infrastructure as climate pressures grow.
- **Cease-to-maintain implications:** NAI in Epoch 2 includes more “cease to maintain” situations (rising from **1** to **8** units), implying future needs for safe removal/disposal of defence materials and associated Health & Safety requirements—costs that are currently unquantified and may not fit standard business case routes.

Recommendations:

The emerging recommendations coming from this report are to be discussed by the WCGF and will form the basis of its ongoing and future workplan:

- **WCGF to develop a Workplan that fully incorporates and prioritises the Measure 11 recommendations.**
- **Review all 22 Policy Units that identify ‘Funding Constraints & Partnership Working’ as barriers.**
- **Undertake a “Theory of Change” exercise across five MR locations.**
- **Undertake a “Who has stake at the coast” analysis.**
- **Build long-term monitoring inputs to support adaptation planning.**
- **Develop a coordinated communication and engagement approach for the Forum.**
- **Call for Welsh Government to Progress Measure 18 of the National Strategy in collaboration with WCGF.**

Crynodeb Gweithredol:

Mae adroddiad Mesur 11 yn darparu asesiad lefel uchel, cenedlaethol o ba mor effeithiol y mae Cymru wedi gweithredu polisiau Cynllun Rheoli Traethlin Cyfnod 1 (2005–2025) ar draws arfordir Cymru. Mae Cynlluniau Rheoli Traethlin yn gosod fframwaith strategol hirdymor (100 mlynedd) ar gyfer rheoli llifogydd ac erydiad arfordirol, gan sicrhau cydbwysedd o ran gwarchod cymunedau ac isadeiledd, gyda chynaliadwyedd amgylcheddol. Mae Mesur 11, un o'r mesurau o fewn Strategaeth Genedlaethol Cymru ar gyfer Rheoli Perygl Llifogydd ac Erydu Arfordirol, yn ei gwneud yn ofynnol i Grwpiau Arfordirol, trwy Fforwm Grwpiau Arfordirol Cymru, adrodd ar gyflawniad polisiau Cynllun Rheoli Traethlin Cyfnod 1 erbyn 2025. Mae'r canfyddiadau'n darparu llinell sylfaen sy'n seiliedig ar dystiolaeth i lywio gwaith cynllunio Cyfnod 2 (2025–2055), blaenoriaethau buddsoddi yn y dyfodol a chamau cydlynol i gryfhau gwydnwch arfordirol hirdymor yng Nghymru.

Canfyddiadau Allweddol:

5) Mae Cymru wedi sicrhau cydymffurfiaeth gyffredinol gadarn

- Ar draws **473 o Unedau Polisi** (1,914 km o arfordir), fe wnaeth Cymru gyflawni **90.1% o gydymffurfiaeth gyda pholisiau Cyfnod 1** (426 allan o 473 Uned Polisi yn cydymffurfio) (1,725 km allan o 1,914 km o arfordir).
- Cafodd 47 o Unedau Polisi (189 km o arfordir) eu nodi fel rhai nad oedd yn cydymffurfio, yn aml gyda mwy nag un rhwystr fesul uned.

6) Mae dulliau rheoli risg llifogydd ac erydiad arfordirol (FCERM) traddodiadol yn cael eu gweithredu, wrth i ddulliau mwy addasol brofi'n heriol.

Mae darpariaeth polisi Cyfnod 1 yn amrywio'n fawr yn ôl math o bolisi:

- **Dal y Llinell (HTL): 223 o Unedau Polisi – 98.2% yn cydymffurfio.**
- **Dim Ymyrraeth Weithredol (NAI): 178 o Unedau Polisi – 98.3% yn cydymffurfio.**
- **Ail-alinio Rheoledig (MR): 72 o Unedau Polisi – 44.4% yn cydymffurfio.**

Mae Cymru wedi bod yn hynod lwyddiannus lle mae bwriad polisi yn cyd-fynd â modelau ariannu/ cynnal a chadw sefydledig (HTL) neu lle “nad oes angen amddiffyn” (llawer o leoliadau NAI). Mae'r bwlch gweithredu wedi'i ganoli o ran ail-alinio rheoledig, lle mae cyflawni yn gofyn am gydlyn budd-ddeiliaid, cytundebau tir, ac yn aml trefniadau buddsoddi a llywodraethu ansafonol.

7) Mae tirwedd y Cynllun Rheoli Traethlin yn gogwyddo tuag at addasu yn ystod Cyfnod 2 a 3.

Ar draws Cymru, gwelir symudiad sylweddol o ran bwriad y Cynllun Rheoli Traethlin oddi wrth HTL dros amser. Mae “prif bwyslais” y polisi yn symud tuag at MR /NAI, ond ail-alinio rheoledig yw'r math o bolisi sy'n cyrraedd y lefelau cyflawni isaf ar hyn o bryd. Oni bai bod cyfyngiadau cyflawni MR yn cael eu datrys yn gynnar yn ystod Cyfnod 2, gallai cydymffurfiaeth genedlaethol ostwng wrth i gyfran y polisiau addasol gynyddu.

8) Mae rhaglenni galluogi a buddsoddi wedi cefnogi cyflawniad

Mae'r adroddiad yn tynnu sylw at nifer o fewnbynnau galluogi a buddsoddi, sy'n sail i gydymffurfiaeth, gan gynnwys:

- **Mwy na £291 miliwn** o gymorth drwy Raglen Rheoli Perygl Arfordirol Llywodraeth Cymru (o fewn FCERP), yn ariannu **15 o brosiectau cyfalaf amddiffynfeydd arfordirol mawr** mewn **8 o awdurdodau lleol** rhwng **mis Mawrth 2019 a mis Mawrth 2024**.
- **£75 miliwn** o gyllid ychwanegol gan Gyfoeth Naturiol Cymru yn ystod Cyfnod 1 ar gyfer cefnogi **9 prosiect arfordirol/ llanw mawr**.
- Bron i **£3.3 miliwn** o gyllid gan Lywodraeth Cymru ar gyfer cefnogi Canolfan Monitro Arfordirol Cymru, gan gynnwys arolygon o fwy na 13,000 o broffiliau traethau a >2,190 km o arfordir, datblygu platfform data cenedlaethol a chynyddu capasiti ehangach.

Mae rhaglenni cyfalaf, monitro a thystiolaeth barhaus wedi helpu Cymru i gyflawni HTL a rhannau helaeth o NAI. Bydd angen strwythurau galluogi tebyg wedi'u teilwra i addasu ar gyfer ail-alinio rheoledig ac ar gyfer sefyllfaoedd "rhoi'r gorau i gynnal" sy'n dod i'r amlwg yn dilyn Cyfnod 2.

Rhwystrau trosfwaol (sy'n effeithio ar weithredu polisïau MR a NAI)

Er mai dim ond ~10% o Unedau Polisi sydd ddim yn cydymffurfio, mae'r rhwystrau sy'n cael eu hadrodd yn systematig ac yn gyson, yn arbennig ar gyfer dulliau addasol. Ymhlith y rhwystrau mwyaf amlwg mae:

- **Cyfngiadau adnoddau / capasiti:** cyfeirir at hyn ar draws **25 o Unedau Polisi**, fel prif rwystr, yn ogystal â chydffactor (gan gynnwys **24 allan o 40** o unedau MR nad ydynt yn cydymffurfio).
- **Cymhlethdodau gweithio mewn partneriaeth a chyfyngiadau cyllid:** cyfeirir at hyn mewn **22 o Unedau Polisi**, gall dulliau ariannu a gwerthuso presennol fod yn anfanteisiol i fuddsoddiadau MR, creu cynefinoedd ac addasu hirdymor.
- **Cymhlethdodau perchnogaeth tir:** cyfeirir atynt mewn **14 o Unedau Polisi**, gan arwain at oedi/ costau ac ansicrwydd o ran atebolrwydd, lle nad oes eglurder o ran cyfrifoldebau ac asedau preifat.
- **Dibyniaeth ar Isadeiledd (gan gynnwys priffyrdd, hawliau tramwy cyhoeddus):** cyfeirir atynt mewn **14 o Unedau Polisi**, lle mae adleoliad/ amddiffyn yn arwain at fwy o gostau, cymhlethdod a gofynion budd-ddeiliaid.
- **Perchnogaeth anhysbys ar ased:** cyfeirir at hyn mewn **4 o Unedau Polisi**, sy'n cymhlethu cyfathrebu ynghylch bwriad rheoli yn y dyfodol.

Rhwystrau trosfwaol (sy'n effeithio ar weithredu polisïau MR a NAI)

Mae diffyg cydymffurfiaeth â MR fwyaf cysylltiedig gyda:

- **Cyfngiadau ariannu:** Mae **15 o Unedau Polisi** yn cyfeirio at gyllid fel y prif rwystr.
- **Materion perchnogaeth tir:** Mae **11 o Unedau Polisi** yn cyfeirio at wrthdaro/ ansicrwydd perchnogaeth neu aliniad anghywir â bwriad y Cynlluniau Rheoli Traethlin.
- **Cyfngiadau o ran capasiti/ adnoddau:** Mae **6 o Unedau Polisi** yn cyfeirio at lefelau staffio a chapasiti arbenigol fel prif rwystrau (a chyfeirir at gapasiti fel cyd-ffactor cyffredin yn ehangach).
- Ymhlith cyfyngiadau ychwanegol mae dibyniaeth ar isadeiledd (e.e. ffyrdd/ rheilffyrdd/ cyfleustodau), blaenoriaethau sy'n cystadlu a hawliau tramwy cyhoeddus (gan gynnwys Llwybr Arfordir Cymru).

Goblygiadau strategol ar gyfer Cyfnod 2 (2025 – 2055)

Mae Cymru wedi cyflawni llwyddiant rhyfeddol wrth gyflawni polisïau Cyfnod 1, ond ar gyfer cam nesaf y gwaith rheoli arfordirol, bydd angen symud oddi wrth amddiffynfeydd traddodiadol i addasiadau rhagweithiol. Bydd mynd i'r afael â rhwystrau systemig megis cyllid, capasiti ac eglurder o ran perchnogaeth yn hanfodol er mwyn cynnal cydymffurfiaeth a chyflawni canlyniadau cynaliadwy. Mae'r adroddiad yn amlygu risgiau os bydd rhwystrau'n parhau:

- **Polisi yn gwyro tuag at amddiffyniad adweithiol** Heb gynllunio cynnar ar gyfer trawsnewidiadau, gall penderfyniadau arwain at fesurau adweithiol, tymor byr sy'n herio bwriad y Cynllun Rheoli Traethlin.
- **Cysylltiad a chostau cynyddol am oes:** Gall oedi mewn perthynas ag addasu gynyddu costau a risg hirdymor i gymunedau ac isadeiledd wrth i bwysau o ran hinsawdd gynyddu.
- **Goblygiadau rhoi'r gorau i gynnal:** Mae NAI yn ystod Cyfnod 2 yn cynnwys mwy o sefyllfaoedd "rhoi'r gorau i gynnal" (gan gynyddu o **1 i 8** uned), sy'n awgrymu anghenion yn y dyfodol ar gyfer cael gwared ar ddeunyddiau amddiffyn yn ddiogel a gofynion lechyd a Diogelwch cysylltiedig— costau nad ydynt wedi'u mesur ar hyn o bryd ac efallai nad ydynt yn cyd-fynd â llwybrau achosion busnes safonol.

Argymhellion:

Bydd yr argymhellion sy'n codi o'r adroddiad hwn yn cael eu trafod gan Fforwm Grwpiau Arfordirol Cymru a byddant yn sail i'w gynllun gwaith parhaus a chynllun gwaith y dyfodol:

- **Bod Fforwm Grwpiau Arfordirol Cymru yn datblygu Cynllun Gwaith sy'n ymgorffori ac yn blaenoriaethu argymhellion Mesur 11 yn llawn.**

- Adolygu pob un o'r 22 o Unedau Polisi sy'n nodi 'Cyfyngiadau Ariannu a Gweithio mewn Partneriaeth' fel rhwystrau.
- Cynnal ymarfer “Damcaniaeth Newid” ar draws pum lleoliad MR.
- Cynnal dadansoddiad “Pwy sydd â budd yn yr arfordir”.
- Adeiladu mewnbynnau monitro hirdymor i gefnogi gwaith cynllunio addasu.
- Datblygu dull cyfathrebu ac ymgysylltu cydlynol ar gyfer y Fforwm.
- Galw ar Lywodraeth Cymru i symud ymlaen â Mesur 18 o'r Strategaeth Genedlaethol mewn cydweithrediad â Fforwm Grwpiau Arfordirol Cymru.

1. Introduction

1.1 Measure 11 context

The overall Flood and Coastal Erosion Risk Management (FCERM) structure and objectives in Wales are set by Welsh Ministers, who are responsible for setting FCERM strategy and allocating both Capital and Revenue funding, Natural Resources Wales (NRW) provides national oversight, and Local Authorities (LA) lead on managing surface water, small watercourses, groundwater flood risks and are coast protection authorities.

Coastal Groups are responsible for producing and managing Shoreline Management Plans (SMPs). They consist of LAs, NRW, the Wales Coastal Monitoring Centre (WCMC) and other coastal partners such as National Trust, Network Rail, Heneb and Welsh Water / Dŵr Cymru. Within the two cross-border SMPs, see 2.6, membership also includes a range of English equivalent organisations such as the Environment Agency (EA), Natural England (NE) and relevant coastal monitoring centres.

The Wales Coastal Group Forum (WCGF) represents the collective interests of Coastal Groups and other members and provides and communicates the strategic direction to Coastal Groups on coastal risk management matters and the delivery of SMPs.

The independent Flood and Coastal Erosion Committee (FCEC) advise Ministers, with the WCGF chair acting as a key link between the two, as seen in Figure 1.

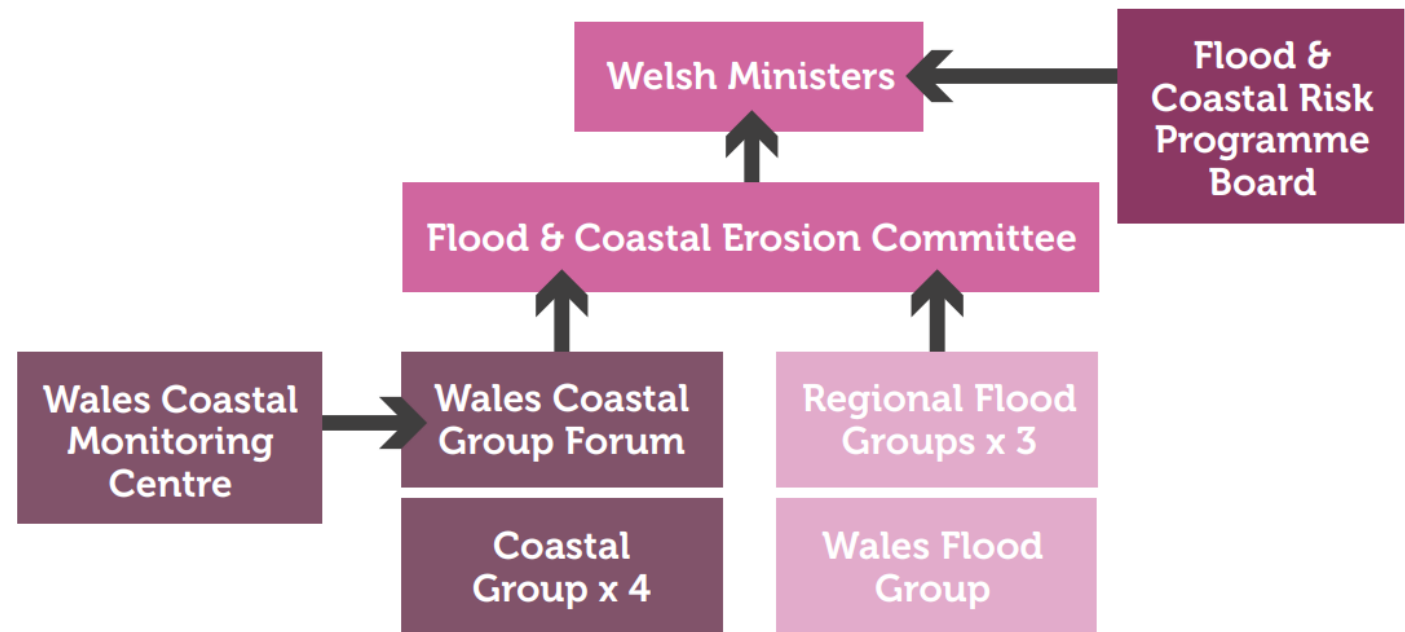


Figure 1: Links between National Groups, Fora and Committees (Welsh Government, 2020).

Measure 11 is one of 24 Measures within the [National Strategy for Flood and Coastal Erosion Risk Management in Wales](#) (Welsh Government, 2020). The overarching aim of the National Strategy is ‘To reduce the present and future risk for people, homes and businesses from flooding and coastal erosion’.

Measure 11 requires ‘Coastal Groups, via the Wales Coastal Group Forum (WCGF), to report on the implementation of Shoreline Management Plan 2 (SMP2) Epoch 1 policies by 2025’.

To deliver Measure 11, WCGF members developed a standard reporting proforma (Excel Spreadsheet, see Figures A1, A2, A3 and A4) and appointed Measure 11 leads within each of the four Coastal Groups in Wales.

Data collection began following a call for information on the 7th of January 2025. During this time, Measure 11 leads met regularly to discuss and refine the reporting process, with concerns and recommendations shared at quarterly WCGF meetings.

2. Shoreline Management Plans in Wales

Note:

For further information on SMPs, either click the links for each Coastal Group in 2.6, or visit the NRW SMP webpage: <https://naturalresources.wales/flooding/managing-flood-risk/shoreline-management-plans/?lang=en>

English and cross-border SMPs can be accessed via the Environment Agency’s SMP-Explorer webpage: <https://environment.data.gov.uk/shoreline-planning>

2.1 What is a Shoreline Management Plan?

SMPs set out a shared strategic approach for managing the coastline from coastal flooding and erosion risks. Their aim is to reduce the risks to people, the developed, historic and natural environments over a 100-year timeframe from 2005 to 2105.

2.2 SMP Development

Shoreline Management Plan 2 (SMP2s) were developed between 2006 and 2012, superseding the original iterations developed in the late 1990s and early 2000s. SMPs have been subject to peer review and public consultation. Coastal Groups then agreed the SMPs, which were also approved by local council cabinets before they were signed off by the Welsh Government in 2014.

SMPs are numbered sequentially as part of a UK-wide system, starting in the north-east of England and continuing clockwise around the coastline. Wales is covered by SMPs 19 - 22, reflecting their position within this national sequence rather than a Wales-specific numbering scheme.

2.3 How are SMPs applied at the coast?

SMPs aren’t statutory documents, but the Welsh Government want to see them considered both in local decision-making and strategic planning, such as Local Development Plans and Local Flood Risk Management Strategies produced by Local Authorities. SMP Policy compliance is also considered within Marine Licensing process.

At the coast, Local Authorities are usually the Local Planning Authority, unless the location is within a National Park such as Eryri or Pembrokeshire Coast National Park which then acts as the Local Planning Authority.

2.4 SMP Epochs and Planning Timeframes

SMPs split the coastline into small sections called Policy Units. These are small lengths of coastline with similar or interacting coastal processes, and/or assets at risk that can be managed together. SMPs describe how these Policy Units will be managed over planning timeframes, commonly referred to as ‘*Epochs*’ which provide a structure to guide the timing of policy delivery, these are split into the following:

- **Short-term (2005-2025) – Epoch 1**
- **Medium-term (2025-2055) – Epoch 2**
- **Long-term (2055-2105) – Epoch 3**

While the SMP2 Epochs, on paper, have fixed date ranges, it is recognised that the timing of policy implementation can be influenced by factors such as the rate of sea-level-rise, local studies, and social and environmental considerations (Natural Resources Wales, 2021).

2.5 SMP Policy Options

There are four SMP policies that can be applied to each Policy Unit, for each Epoch, setting out the Management Approach for a section of coast over the 100-year timeframe as set out within the SMP documents. These policies are grouped into four Management Approaches:

- **Hold the Line (HTL)** by maintaining or changing the existing standard of protection
- **Advance the Line (ATL)** by building new defences on the seaward side of the original defences (although none applied in Wales)
- **Managed Realignment (MR)** which allows the shoreline to move backwards and forwards, with management to control or limit the movement
- **No Active Intervention (NAI)** where there is no investment in coastal defences and natural processes are allowed to continue to create an evolving coastline

A series of sub-categories are applied to each of the main SMP policies to provide an additional layer of information describing the approach intended to deliver the SMP for each Policy Unit, these have been listed in Appendix B.

2.6 SMPs Covering Wales

There are four SMPs covering the Welsh coastline, two of which, SMP19 and SMP22, are cross-border with England. Each SMP is delivered by a corresponding Coastal Group, which holds joint ownership of the plan and oversees its implementation. Their geographical distribution is shown in Figure 2.

- **SMP19: Anchor Head–Lavernock Point** – [*Severn Estuary Coastal Group \(SECG\)*](#)
- **SMP20: Lavernock Point–St Ann’s Head** – [*Swansea and Carmarthen Bay Coastal Engineering Group \(SCBCEG\)*](#)

- **SMP21: St Ann's Head–Great Orme's Head** – [*West of Wales Coastal Group \(WoWCG\)*](#)
- **SMP22: Great Orme's Head–Scotland** – [*North West and North Wales Coastal \(NWNWCG\) & Liverpool Bay Coastal subgroup \(LBCSG\)*](#)

Note:

The Liverpool Bay Coastal subgroup (LBCSG) is one of two subgroups that supports the North West North Wales Coastal Group (NWNWCG). Coastal practitioners and representatives from Sefton in England to Conwy in North Wales sit within this subgroup.

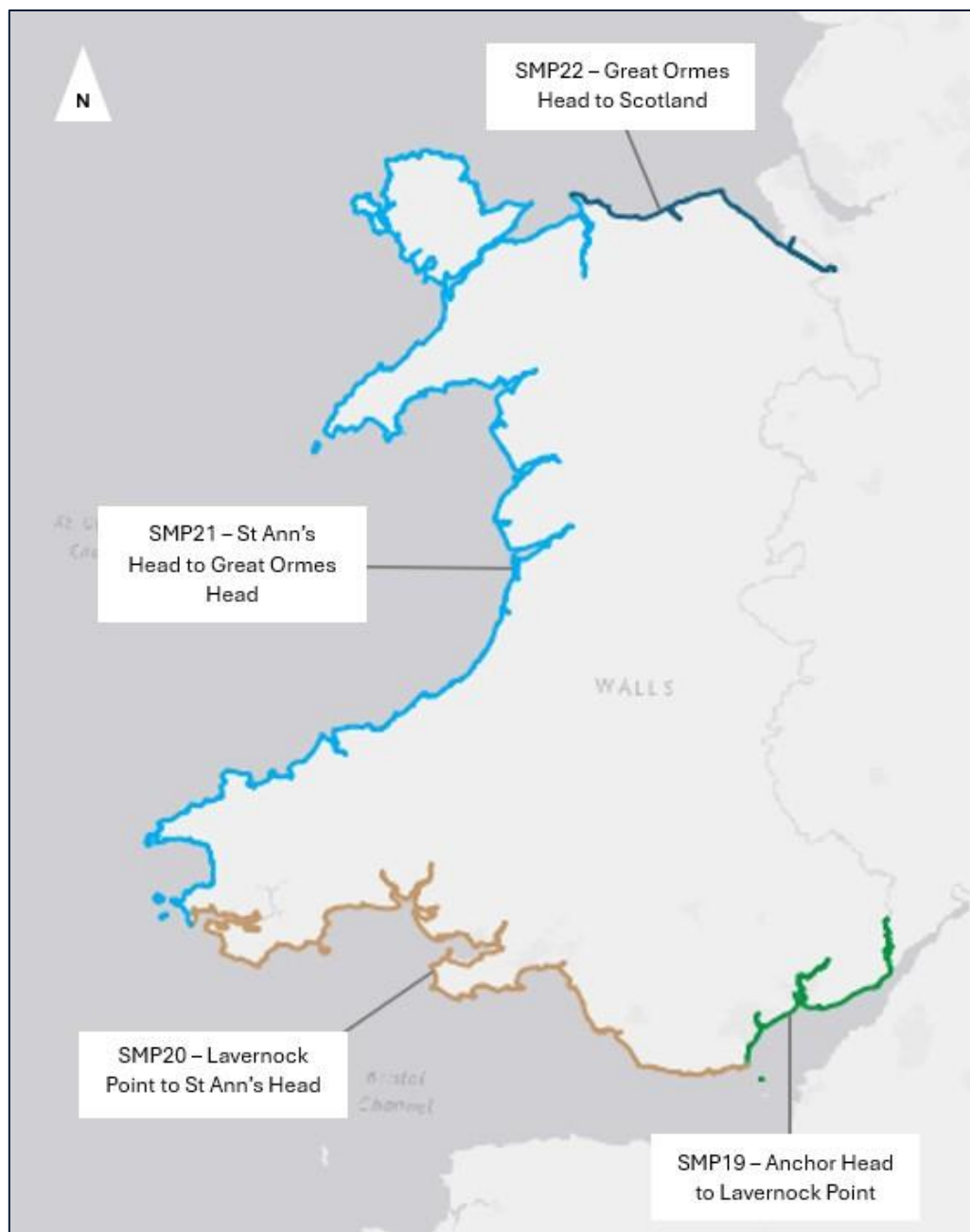


Figure 2: Geographical extents of the four SMPs covering Wales.

3. SMP Policy Landscape in Wales

Before reviewing the Measure 11 results, it is important to understand the current and future SMP policy landscape in Wales. Figure 3 outlines the SMP policy landscape in Wales, covering 473 Policy Units (1,914 km of coastline) across all four SMPs. SMP policies extend to Epoch 3 (2105), which acts as the long-term target, while Epoch 1 (2005–2025) provides the baseline for Measure 11 reporting.

Across the three planning Epochs, Wales shows a clear shift in SMP policy from Hold the Line (HTL) to Managed Realignment (MR) and No Active Intervention (NAI), visualised in Figure 3. In Epoch 1 (2005 – 2025), HTL dominates, reflecting a strong emphasis on maintaining or replacing existing defences. By Epoch 2 (2025–2055), HTL reduces as MR and NAI approaches increase, signalling a transition toward the need for more adaptive and sustainable approaches in light of climate change pressures. In Epoch 3 (2055–2105), HTL declines further, and MR grows, with NAI becoming the most prevalent approach. This shift reflects Welsh coastal characteristics and a strategic move toward enabling natural processes with minimal intervention.

It is important to note that SMP policies represent suggested targets and may be updated or revised at any time. The longer-term management intent defined by the SMP is presumed to remain sensible and appropriate, even if the timing and implementation approach may change. For further information please see sections 3.3 and 3.4 of [NRW’s Shoreline Management Plans: Supplementary guidance for their ongoing maintenance and delivery – Wales](#).

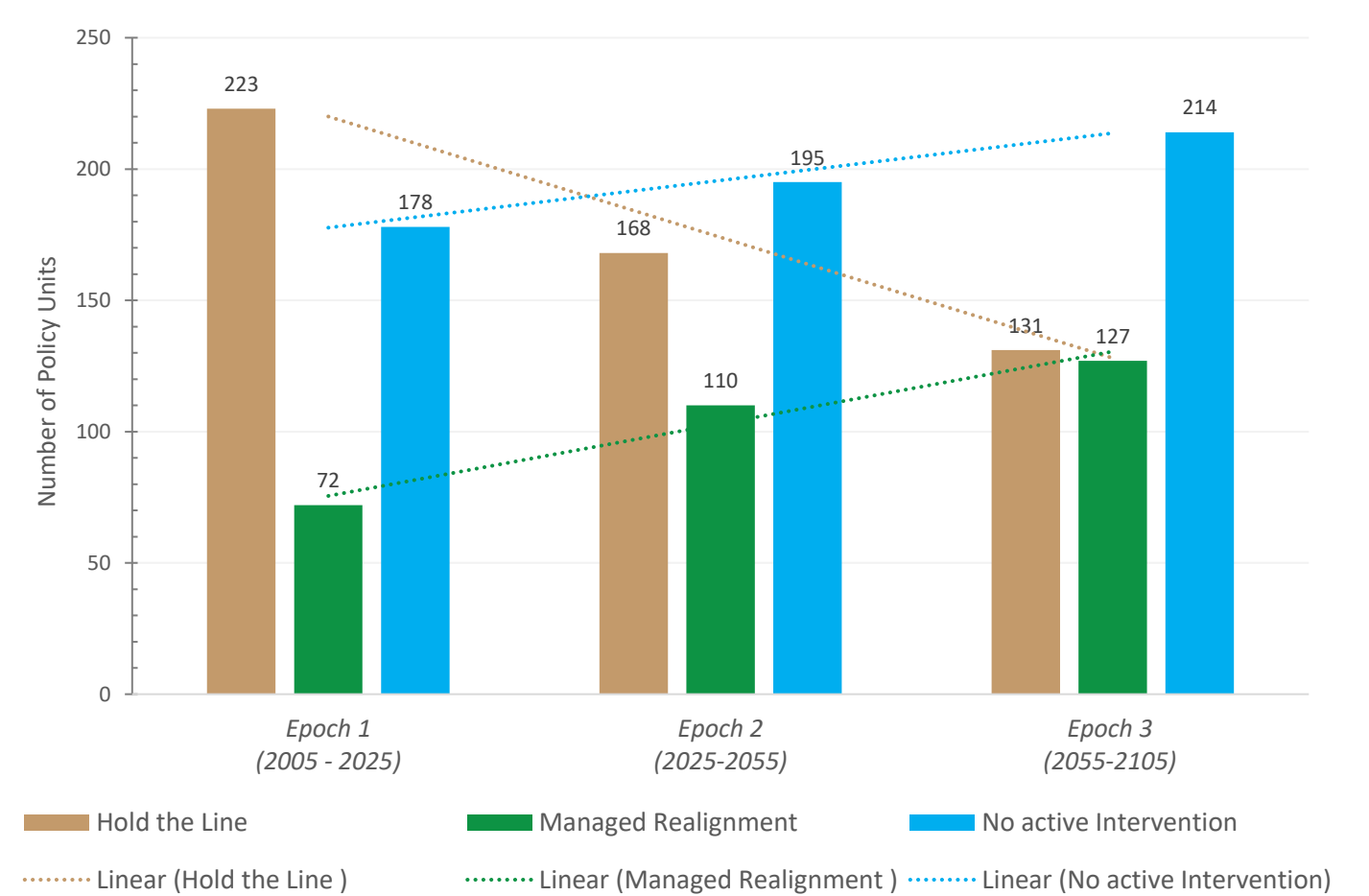


Figure 3: Short-, Medium- and Long-term trends for SMP policies across the whole of Wales

The geographical distribution of SMP Epoch 1 policy in Wales reflects a balance between protecting developed areas and allowing natural process to dominate and shape the coastal environment in less densely populated areas.

This is represented in Figure 4 with HTL SMP policies located next to urban and industrial centres such as Cardiff, Swansea Bay and parts of North Wales to safeguard infrastructure and communities. In contrast, NAI and MR dominate rural and environmentally sensitive sections of coast, such as Cardigan Bay and Pembrokeshire, supporting habitat creation and long-term sustainability. Finally, estuarine zones, notably the Dyfi and Mawddach Estuary, exhibit a mixed approach, balancing flood risk management with ecological objectives.

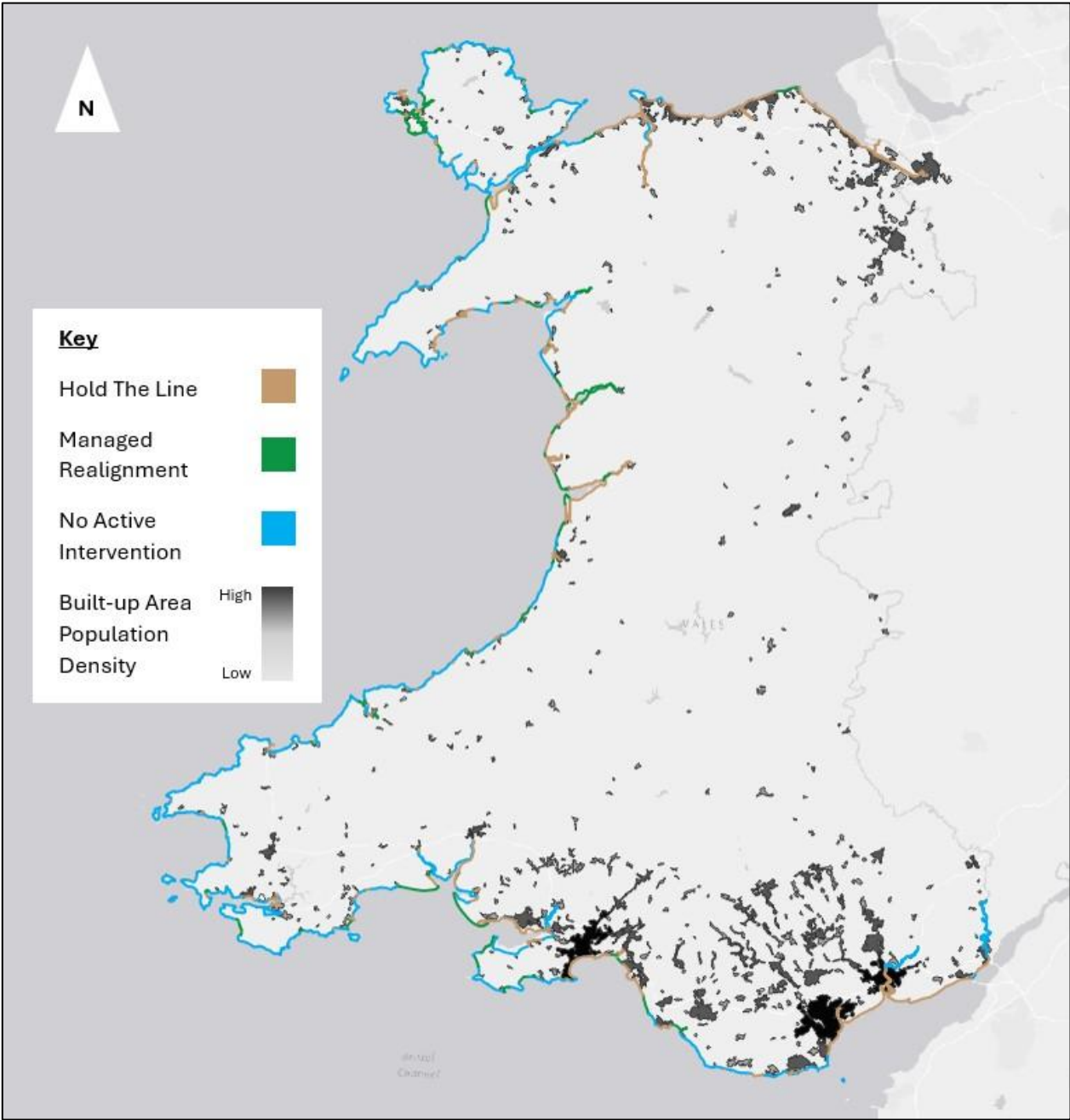


Figure 4: Geographical distribution of SMP Epoch 1 SMP policy across Wales against population density.

4. SMP Epoch 1 Policy Implementation (2005 - 2025)

4.1 National Compliance Overview

Compliance refers to whether the SMP policy set out in each Policy Unit for Epoch 1 has been delivered or is actively being implemented, based on the best available information from Coastal Group members. The following section presents a national overview of compliance with SMP Epoch 1 policies, followed by regional and policy-type breakdowns, compliance is reported on by Policy Unit and km length.

Across the 473 Policy Units (1,914 km of coastline) in Wales, there is a 90.1% compliance rate with Epoch 1 Policy (Figure 5).

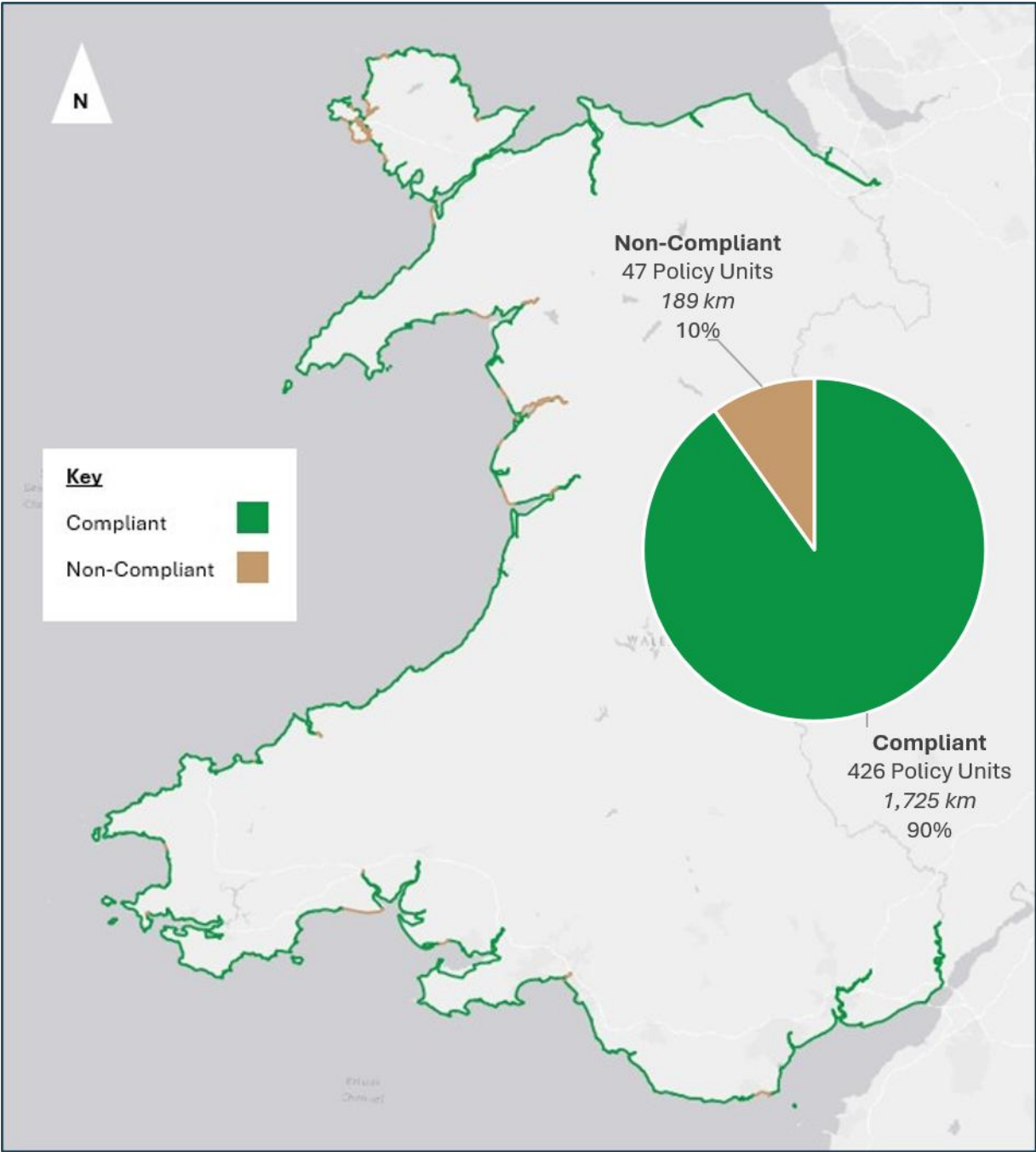


Figure 5: Map and Pie Chart for Compliance with Epoch 1 policies across Wales.

4.2 Reasons for compliance

The large-scale successful implementation of Epoch 1 policies is a testament to the work of Coastal Practitioners across a range of RMAs in Wales and opportunities provided for innovative coastal management over Epoch 1.

Over £291 million has been made available by Welsh Government as part of its' Coastal Risk Management Programme (CRMP). Sitting as part of the wider Flood and Coastal Erosion Risk Management Programme (FCERMP). CRMP funding has supported fifteen major capital coastal defence projects within eight Local Authorities over the last five years from March 2019 to March 2024 further detail on the programme can be found on the [Welsh Government FCERMP webpage](#).

The FCERMP also encompasses Grant in Aid (GiA) funding that supports NRW's Core Funding Programme. NRW has provided a further £75 million in funding over Epoch 1, supporting nine major coastal / tidal projects. Further, this provides access to both capital and revenue funding supporting RMAs to deliver innovative coastal defence projects.

Business-as-usual activities of RMAs across Wales has also contributed to such high levels in compliance. RMAs are responsible for the routine inspection and maintenance of coastal assets in Wales, under the Flood and Water Management Act (2010), identified as one of the top reasons for compliance nationally. Further, they are responsible for applying for, managing and delivering capital projects within the wider FCERMP and ensure that local and private works permitted are in line with agreed SMP policy sub-categories and wider legislation. This work has been referenced across 299 Compliant Policy Units in Wales.

RMAs and Coastal Group members also support long-term strategic work, including MR initiatives, flood risk management strategies, and SMP development. The SMP-refresh (SMP-r) programme has delivered SMP-specific Health Check Reports and updated guidance, resulting in clearer policy intent and improved short-term action prioritisation.

Dedicated Coastal Officers within two Coastal Groups have provided much needed extra capacity in Wales by strengthening SMP administration, accessibility, and ensuring national consistency through action plan rationalisation and website improvements. In the remaining groups, this function is supported through internal and external resources. The WCGF, chaired by WLGA, has further facilitated effective collaboration between public and private sectors and engagement with the FCEC.

The NRW National Habitat Creation Programme alongside Coastal Adaptation Programme aims to advance appraisal and delivery of coastal adaptation priorities in support of SMP2 policy transition, MR or alternative sustainable flood risk management to achieve multiple outcomes for Sustainable Management of Natural Resources, wellbeing, and habitat creation and restoration. Joint delivery of the programme is subject to Welsh Government approvals and funding, and third-party collaboration and consultation will be essential for success throughout.

Over the past eight years, the Wales Coastal Monitoring Centre (WCMC) has delivered significant progress toward SMP compliance FCERM in Wales, supported by nearly £3.3 million of Welsh Government funding. The programme has generated a robust national evidence base based off its Risk Based Management (RBM)

approach, which prioritises the centres programme, surveying over 13,000 beach profiles across a number of the 473 SMP Policy Units and more than 2,190 km of coastline, with the majority of funding invested directly in survey delivery. WCMC has strengthened survey market capacity by working with eleven contractors, upskilling local authority teams, and developing an accessible national data platform that supports evidence-led decisions, including at locations where over £43 million of FCERM capital schemes have been awarded. Beyond technical delivery, WCMC has addressed FCERM skills shortages through placements and higher-education partnerships, engaged over 9,000 citizen scientists and more than 1,200 primary-school pupils, and leveraged additional funding from over ten external sources. While gaps remain for the next phase, including manned-aircraft LiDAR and further risk-based reprioritisation, WCMC is increasingly recognised as a trusted national “expert ear” and a key enabler of adaptive, evidence-led coastal risk management in Wales.

Private sector activity has also supported the delivery of SMP policies, with contributions referenced across 51 Policy Units. This has been facilitated by a range of actions, including Network Rail’s routine responsibility to monitor and maintain railway assets, improved communication with infrastructure and utility providers, namely Network Rail and Welsh Water / Dŵr Cymru, on climate adaptation, and the National Trust’s implementation of a setback defence as part of a MR SMP policy.

4.3 Reasons for non-compliance

Of the 473 Policy Units (1,914 km of coastline) in Wales, 47 (189 km) were identified as Non-Compliant with SMP Epoch 1 Policy. (Figure 5).

Multiple reasons for non-compliance were reported, with a single Policy Unit often highlighting more than one barrier. The most common barriers identified were funding, land ownership complexities, resource and capacity limitations (particularly staffing) and the presence of unknown assets/owners. Other barriers identified include issues related to highways, competing priorities, physical access constraints, and infrastructure limitations. See Appendix B for a detailed overview of reasons for Non-Compliance for all 47 Policy Units.

Further information on barriers specific to SMP policies can be seen in section 4.5 below.

4.4 Compliance by SMP Region

Compliance levels vary across the four SMP regions in Wales as a result of the geographical distribution of SMP policies and the number of Policy Units per SMP, shown in Figure 6.

SMPs 19 and 22 are dominated by HTL SMP policies, which are associated with high levels of compliance, (see section 4.5). Together both SMPs account for less than 10% of the total Policy Units and less than 15% of the total coastline in Wales, with only 18 Policy Units each due to their cross-border nature, see Figure 2. As a result, they have achieved higher percentages of Policy Compliance.

In contrast, SMPs 20 and 21 represent over 90% of the total number of SMP Policy Units in Wales, with 27% and 65%, respectively. These regions have a broader mix of SMP policies, including MR which is associated with lower levels of compliance (see section 5.7). This is particularly significant in SMP21, which alone accounts for 65% of Welsh SMP Policy Units and 54 out of the 72 MR policies, and exhibits the lowest compliance rate at 44.4% (Figure 7). As a result, they have mixed percentages of Policy Compliance.

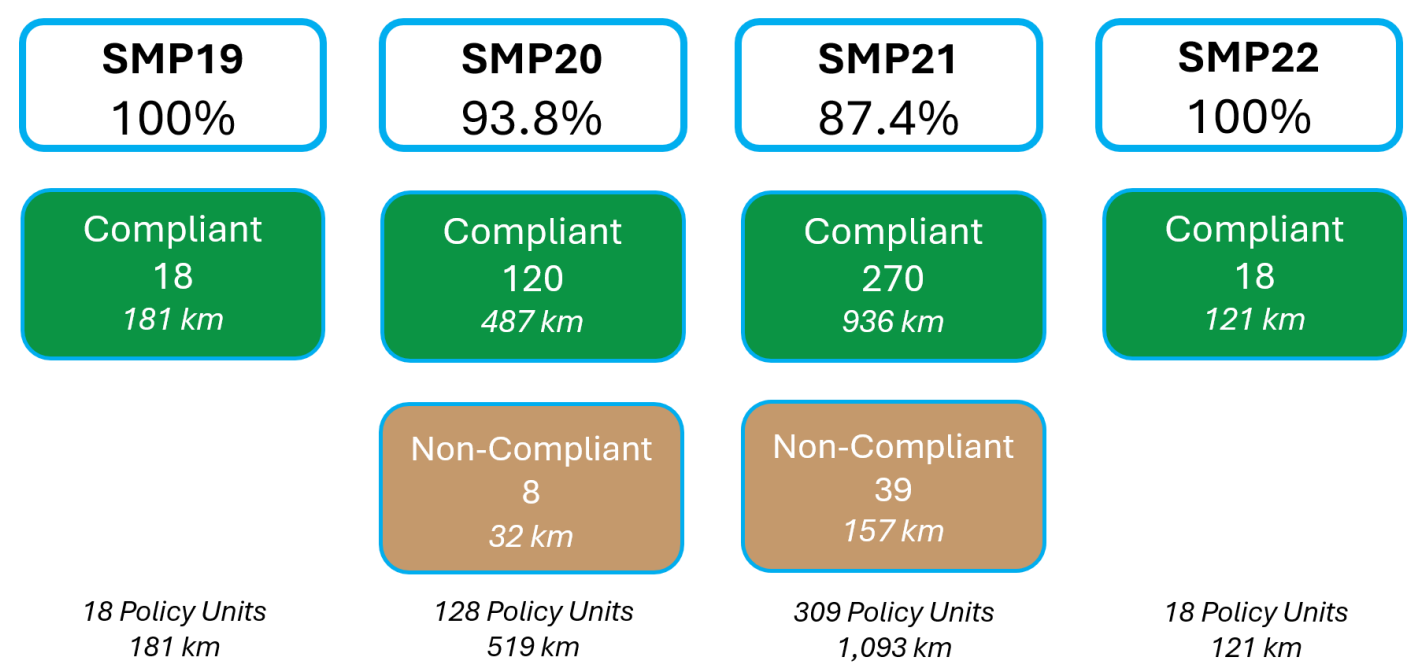


Figure 6: Percentage of compliance for each SMP region and responsible Coastal Group. Note that the cross-border SMPs 19 and 22 have a significantly lower number of Policy Units compared to SMP 20 and 21.

These results highlight that while most SMPs demonstrate high delivery rates, SMP 21, representing the largest coastline of Wales (1,093 km) with many MR areas, requires much more active planning and associated funding to implement.

4.5 Compliance by Policy Type

In addition to regional variation, compliance also differs by SMP policy type. The following section examines delivery rates for HTL, MR, and NAI policies.

National compliance by SMP policy type is shown in Figure 7. This displays the total number of Policy Units and km length of coastline for each SMP policy type alongside the respective number of Compliant and Non-Compliant Policy Units.

HTL dominates the policy landscape for Epoch 1, achieving near-complete compliance at 98.2%. NAI shows a similar success rate, with 98.3%. Both HTL and NAI are prevalent across Wales, largely due to current FCERM funding mechanisms and the geomorphological characteristics of the Welsh coastline (*Figure 4*). In contrast, MR presents the greatest delivery challenge, with only 44% of the 72 Policy Units compliant.

These figures highlight that while traditional approaches such as HTL and NAI, specifically those with a ‘no need to defend’ SMP sub-category, have been widely delivered in Epoch 1, significant barriers exist for MR.

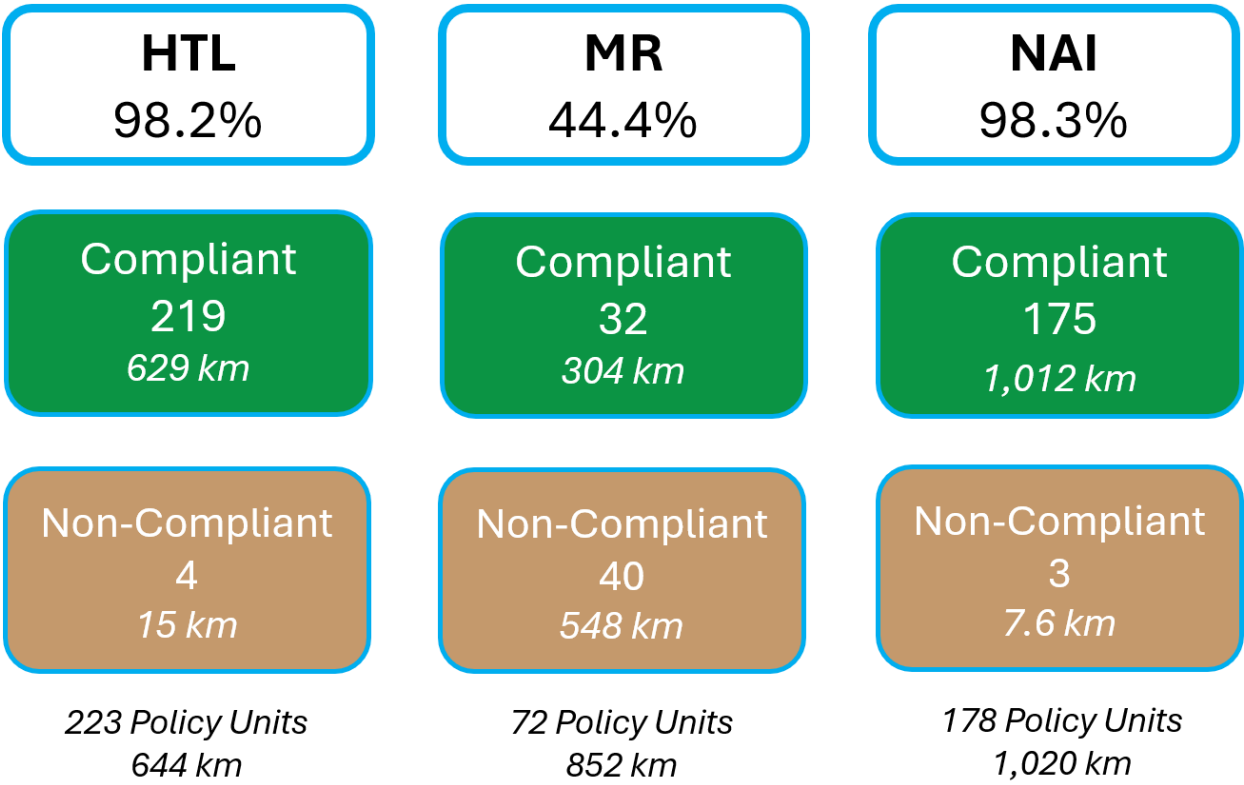


Figure 7: Epoch 1 policy type implementation by percentage, Policy Unit number and km length.

To provide greater context, each SMP policy has been reviewed separately, alongside the primary reasons for Non-Compliance.

4.5.1 Hold the Line (HTL)

Hold The Line (HTL) is the most widely applied SMP policy type in Wales during Epoch 1 at 223 of 473 Policy Units, accounting for 644 km of coast.

Current Status

HTL applies to nearly half of the total number of Policy Units in Wales. Out of these, 219 areas are delivering the SMP policy as intended. While only 4 are identified as non-compliant, resulting in a strong compliance rate of 98.2% (*Figure 7*).

Figure 8 maps where HTL policies are being delivered. It is especially common in the northern and southern regions (SMPs 22 and 19), explaining why those areas are performing well in delivering their overall SMP policy intent.



Figure 8: Map of compliance with Hold the Line (HTL) policy in Epoch 1.

Strategic Benefits

HTL is the dominant SMP Epoch 1 policy in Wales due to its historical role in protecting high-value coastal assets such as critical infrastructure, transport and property particularly in densely populated coastal areas. This has resulted in a large number of 'legacy assets' such as sea walls, revetments and groins which require routine inspection and reactive maintenance.

Future Outlook

This policy also aligns well with current funding mechanisms, such as the Welsh Government FCERMP. Through this programme RMAs can apply for funding to carry out capital works, often involving hard engineering to reduce flood and coastal erosion risk. HTL will continue to suit this structure, as the economic value of protecting people and property often outweighs the cost of maintaining defences, making it a financially viable option, especially in populated or economically active areas.

A thematic analysis was conducted to identify key reasons for compliance and non-compliance. Data was drawn from the following sections of the reporting proforma:

- Compliance: "Yes – How" (Figure A2)
- Non-compliance: "No – What has prevented the implementation of Epoch 1 policy" and "Please select the primary reason for non-compliance with SMP Epoch 1 policy" (Figure A3)

The themes identified below are not mutually exclusive; a single Policy Unit may reference multiple reasons, so totals do not equal values in Figure 7. This approach was applied consistently across all three policy types.

Reasons for HTL Compliance

- **Routine inspection and maintenance of existing defences:** 149 Policy Units evidence compliance by documenting regular inspections, conditions checks and the reactive maintenance of sea walls, revetment and embankments.
- **Completion of capital schemes that deliver or sustain the HTL standard of protection:** 64 Policy Units reference complete / underway FCERM or CRMP capital works. This includes new / raised sea walls, groynes, revetments and harbour structures.
- **Monitoring and trigger-based asset management:** 46 Policy Units reference monitoring of beach profiles, dune condition, cliff scans and CoastSnap points, alongside agreed triggers informing asset maintenance.
- **Transport and infrastructure provider asset ownership and maintenance:** 31 Policy Units reference asset inspections, routine repairs and resilience measures of railway lines and strategic roads that form and / or set the defence line.
- **Privately funded and third-party defence operation and upkeep:** 27 Policy Units reference ongoing operation and maintenance of ports, docks and major industrial frontages.
- **Set back of the current defence line:** 2 Policy Units reference the planned set back of defences while the present line is held. This is currently being achieved by ongoing asset maintenance and inspections while the design and consultation on secondary set back defence is underway.

Reasons for HTL Non-Compliance

- **Unknown asset ownership:** 2 Policy Units lack clarity on who owns, or is responsible for coastal assets, making it difficult to plan or implement HTL measures.

- **Land ownership:** 1 Policy Unit notes private defence works to increase the standard of protection in contradiction of the SMP policy Sub-Category which is to 'repair, not replace' coastal defences.
- **Funding constraints:** 1 Policy Unit notes that the presence of minimal properties at risk means traditional FCERM funding is not viable.

HTL is implemented in a variety of different ways across Wales, as shown in the case studies below:

Case Study:

NRW Polders Project – Rumney Great Wharf



Source: Natural Resources Wales

“Saltmarsh habitat restoration is such an important part of how we tackle the climate and nature emergencies. It has huge potential to store and sequester carbon, as well as promoting nature and wildlife.”

Deputy First Minister with responsibility for Climate Change, Huw Irranca-Davies

Saltmarsh restoration has been undertaken by Natural Resources Wales (NRW) at Rumney Great Wharf in south Wales. The £800,000 project, delivered as part of the Welsh Government-funded Nature Networks programme, aims to increase biodiversity and resilience in the Estuary as well as reducing flood risk in the area.

The structures, which are made of chestnut posts and brushwood bundles, help encourage the establishment of up to 5.4 hectares of saltmarsh habitat, by slowing the movement of the tide as it recedes, allowing sediment to be deposited within the polder fields.

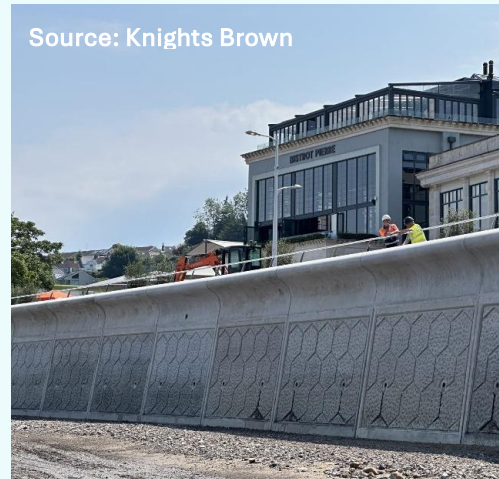
Over time, mud and sand builds up and turns into saltmarsh. This will help restore this important habitat in the Severn Estuary, supporting local wildlife and helping to trap carbon.

The project is a great example of using Nature Based Solutions (NBS) to deliver a Hold the Line (HTL) Shoreline Management Plan (SMP) policy, delaying the need for further hard engineering methods.

The effectiveness of the method is being monitored and evaluated, with the hope to deliver similar projects in other parts of the Welsh Coast.

Case Study:

Mumbles Coastal Protection Scheme



Source: Knights Brown

The Mumbles Coastal Protection Scheme is a major flood defence initiative delivered by Swansea Council under the Welsh Government's Coastal Risk Management Programme (CRMP). Completed in 2025, the £26.5 million project protects 126 properties, including homes and over 50 businesses, from coastal flooding and erosion along a 1 km stretch of Swansea Bay.

The scheme involved:

- Strengthening and raising the existing sea wall and revetments.
- Widening and upgrading the promenade to create a shared pedestrian and cycle route.
- Improving public realm features, including seating, lighting, and landscaping.
- Incorporating eco-conscious design elements, such as textured concrete panels to promote marine biodiversity.

The project not only enhances flood resilience but also improves accessibility and supports local tourism, aligning with climate adaptation goals and community well-being priorities.

4.5.2 Managed Realignment (MR)

Managed Realignment (MR) has the lowest compliance of the three policy types in Epoch 1.

Current Status

MR applies to 72 Policy Units (852 km of coast), which represents approximately 15% of all Policy Units in Wales, however, only 44.4% of these units are compliant with the intended SMP policy (*Figure 7*). Set-back and removal of defences to facilitate MR has been limited, with just one full realignment completed. Compliant Policy Units reference several smaller-scale habitat restoration projects, such as those delivered through the Sands of LIFE programme. Adoption is higher in SMPs 20 and 21, where lower population density and suitable coastal characteristics make implementation more feasible (*Figure 9*).

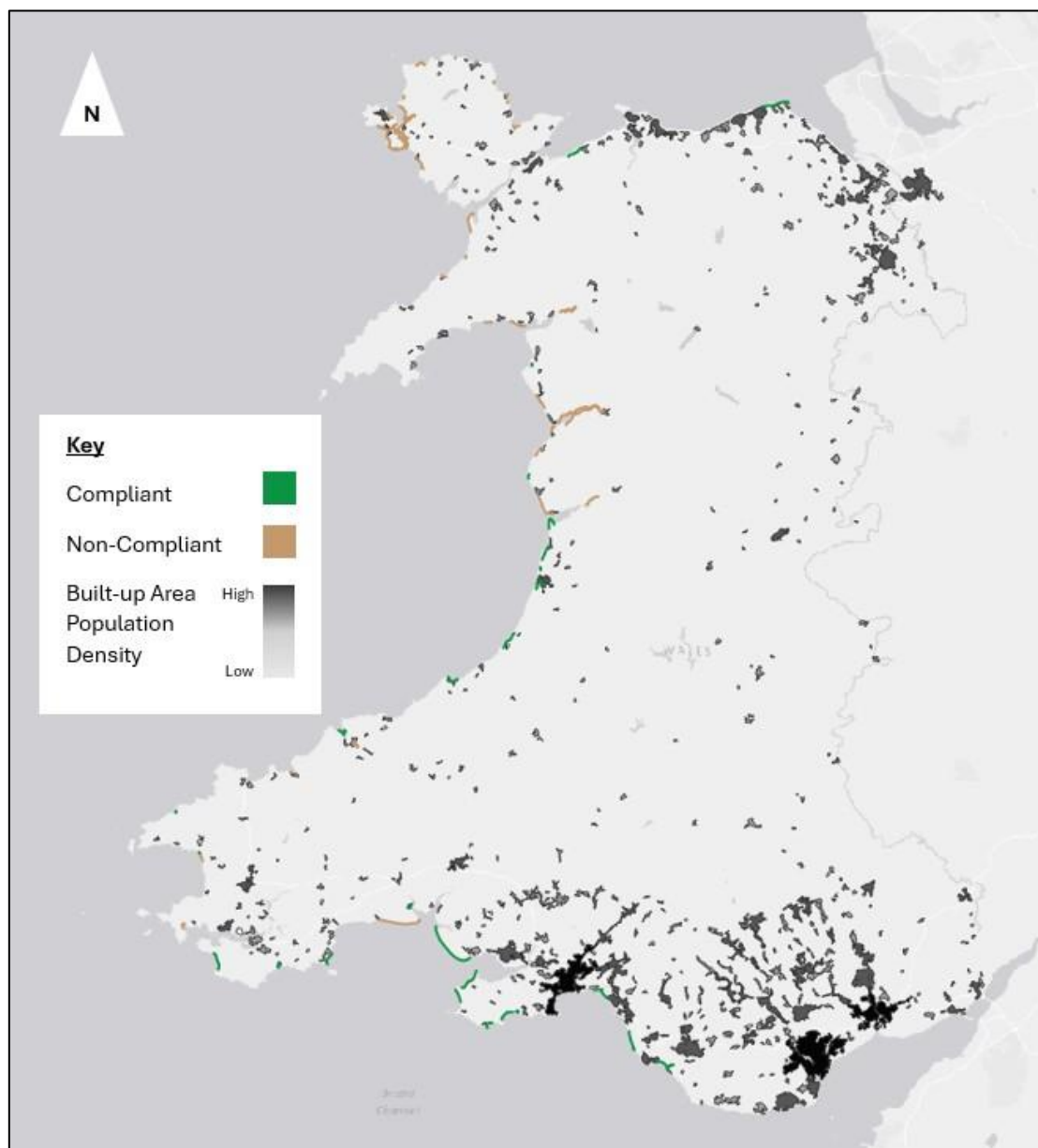


Figure 9: Map of compliance with Managed Realignment (MR) policy in Epoch 1 against population density.

Strategic Benefits

MR provides a long-term, sustainable, adaptive approach to coastal change allowing the shoreline to move landward in a controlled way. This reduces reliance on hard defences which are becoming increasingly costly

and unsustainable as sea-levels rise. It also helps Wales meet its legal requirements to compensate for habitats lost to coastal squeeze caused by hard defences. By creating natural environments such as saltmarshes and mudflats, MR supports biodiversity, contributes to carbon sequestration, and improves resilience. Economically, MR can be more cost-effective than maintaining or upgrading defences in low-lying rural areas, while also improving flood protection by creating natural flood storage making use of Nature-based Solutions (NbS).

Compliance Approaches

Compliance has been achieved through several approaches. Fifteen MR Policy Units which had a sub-category of 'local activity only' were considered to be compliant because management interventions had focused on low-intensity and localised protection measures within the Policy Unit in line with the policy intent and rationale. Twelve Policy Units focused on managing natural features such as dunes and shingle barriers to improve resilience. One Policy Unit, Abereddy, evidenced defence removal by the private landowner National Trust enabling shoreline realignment, while four others have undertaken preliminary assessments but have not yet implemented changes on the ground. Overall, Policy Units are mainly compliant through minimal intervention or managing natural features, not through structural set back of defences.

Future Outlook

Although MR aligns with the National Strategy, there are major challenges facing its uptake. This is significant as MR is projected to be the fastest growing SMP policy from Epoch 1 to 2, as seen in Figure 3, and without increased support and action to understand the key barriers to help resolve them, current implementation trends may lead to a decline in national compliance with SMP policy in future planning periods.

Reasons for MR Compliance

- **Allowing natural processes:** 12 Policy Units say that compliance has been achieved through 'no intervention' or 'allow natural behaviour', consistent with the MR policy sub-category of 'natural features' where the intent is to maintain the integrity of the natural feature (such as a dune, spit or shingle barrier), but not fix its position, by active management of the natural feature but not structural intervention. In one case, the policy sub-category is 'slow erosion' where non-permanent or short-term measures would be accepted that slow, not stop, erosion of cliffs or soft backshore. In a small number of cases, sand dune systems have a policy of no active intervention rather than managed realignment, but the management intent is essentially the same as these examples.
- **Managing natural features:** A further 11 Policy Units reference dune, shingle barrier or beach management with Sands of LIFE and Dynamic Dunescape projects mentioned as specific examples.
- **Habitat creation:** 5 Policy Units reference habitat creation projects such as the National Habitat Creation Programme.
- **Preliminary assessments for MR:** 4 Policy Units reference preliminary / scoping studies to inform MR projects and strategies.
- **Monitoring and inspections:** 3 Policy Units reference the facilitation of MR via evidence-led decision-making with routine profile surveys, LiDAR, fixed photography (CoastSnap) and T-98 inspections referenced as part of triggered based decision making.
- **Pre-defined MR triggers:** 2 Policy Units reference wave overtopping frequency, breach likelihood, flood frequency and standard of protection changes as triggers to prepare for MR.

- **Removal of defences:** 1 Policy Unit references the removal of defences and associated car parking arrangement adjustments.
- **Localised asset works:** 1 Policy Unit references isolated small scale works to a coastal asset while still allowing natural coastal change within the rest of the Policy Unit.

Reasons for MR Non-Compliance

- **Funding constraints:** 15 Policy Units cite funding as the primary barrier to MR implementation; many of these also reference resource / capacity constraints. Policy Units reference 'has yet to become a priority' and 'priority not sufficient to progress' implying that MR intent is recognised, but no funding has been allocated as a result of competing priorities at the local and national scale.
- **Land ownership issues:** 11 Policy Units reference private ownership conflicts, uncertain ownership intentions and private defence works not aligned with headline SMP policies or sub-categories.
- **Resource and capacity limitations:** 6 Policy Units cite Resource / Capacity (people) as the primary barrier to MR implementation, more importantly, it is the most cited co-factor, being referenced within 24 of the 40 non-compliant Policy Units. Policy Units reference 'currently no resource', 'study needed' and 'competing priorities'.
- **Infrastructure dependencies:** 3 Policy Units reference overlaps with critical infrastructure such as roads, railways, and buried utilities. Delivering MR in these areas requires close coordination with public bodies and private infrastructure provider as well as engagement and partnership funding. Relocating or protecting these assets adds complexity, cost and can slow down progress.
- **Competing priorities:** 3 Policy Units are marked as 'low priority' referencing low flood risk, as a result resources are diverted to higher risk areas requiring urgent intervention.
- **Public rights of Way:** 2 Policy Units cite public rights of way such as the Wales Coastal Path as evidence for access issues preventing MR delivery.

Overall, funding has been identified as the primary reason for non-compliance with MR policy. However, even where funding is allocated, limited staff time and skills limit the ability to plan, procure and engage to deliver changes on the ground. This is reflected in non-compliance being most frequent where MR relies on stakeholder engagement and enablers where requires proportional funding and resources are required.

MR is implemented in a variety of different ways across Wales, as seen in the case studies below:

Case Study: **Sand of LIFE** Delivering Managed Realignment through Habitat Restoration



Source: Natural Resources Wales

The [Sands of LIFE](#) project (2018–2024), led by Natural Resources Wales and funded through the EU LIFE programme, restored over 2400 hectares of sand dunes, across four Special Areas of Conservation, on 10 separate Welsh sites. These dynamic habitats are vital for biodiversity and can also act as natural coastal defences.

The project included works at Merthyr Mawr, Kenfig, Whiteford, Pembrey, Pendine, Morfa Dyffryn, Morfa Harlech, Morfa Dinlle, Newborough and Tywyn Aberffraw. These SMP Policy Units share a common management approach to allow natural processes to dominate, improving long-term resilience.

Work included re-profiling dunes to allow sand to move again, lowering the surface of dried-out slacks (hollows) to re-create pools and wet habitat, promoting sustainable grazing by livestock and rabbits, and removing scrub and invasive non-native species. Monitoring through fixed-point photography and LiDAR ensured adaptive management and evidence-based decision-making.

The project delivered multiple outcomes. As well as being reservoirs of biodiversity, sand dunes help safeguard our wider environment as they act as natural sea defences, maintain the quality and flow of freshwater and boost populations of vital pollinators. Beaches and dunes are important to the Welsh tourist economy and are great locations for outdoor exercise and recreation. This project also helped to support SMP policy compliance.

Case Study: **Abereiddy** Delivering Managed Realignment through Defence Removal



Source: ICE

Located on the North Pembrokeshire coast within SMP21 (West of Wales Coastal Group), Abereiddy provides a clear example of Managed Realignment being implemented during Epoch 1.

The SMP2 policy for this unit is Managed Realignment, Remove Defences, with the intent to restore natural coastal processes while maintaining safe access and recreational use of the area.

During Epoch 1, legacy coastal defences were removed by the private landowner National Trust, and car parking arrangements were adapted to accommodate shoreline change. These works were supported by stakeholder engagement to balance visitor access with environmental objectives. The removal of defences has allowed natural sediment movement and dune development, improving the resilience of the frontage to sea-level rise.

The benefits of this approach include full compliance with SMP2 MR intent, restoration of natural geomorphology, and enhanced biodiversity. It also reduces long-term maintenance costs and reliance on hard engineering, demonstrating how nature-based solutions can deliver sustainable shoreline management in a popular tourism location.

4.5.3 No Active Intervention (NAI)

No Active Intervention (NAI) is the most widely delivered SMP policy within Epoch 1.

Current Status

NAI applies to 178 Policy Units (1,020 km of coast) with an exceptionally high compliance rate of 98.3% (*Figure 7*). Its abundance reflects the Welsh coastline's extensive rural and environmentally designated areas alongside geomorphology made up of hard cliff with very low levels of flood and erosion risk, where allowing natural processes is both sustainable and cost-effective.

Strategic Benefits

NAI is common in the West of Wales where large stretches of the coastline face low development pressure and hold high environmental value. In these areas, hard defences are often unnecessary and unsustainable (*Figure 10*). The SMP policy also aligns with long-term adaptation goals as set out within National Strategy as it avoids costly engineering and supports biodiversity.



Figure 10: Map of compliance with a No Active Intervention (NAI) policy in Epoch 1

Compliance Approaches

A significant proportion of NAI compliance is linked to the sub-category ‘no need to defend’, which applies to 113 of the 178 Policy Units. This Management Approach is typically used for cliffs, dunes, and estuarine frontages where there are very few assets at risk, meaning intervention is unnecessary. The remaining 63 Policy Units are classified as ‘local activity only’, where compliance has been demonstrated through small-scale interventions such as minor access adjustments or monitoring activities rather than major engineering works.

Future Outlook

NAI remains a dominant and growing policy in Epoch 2, particularly in rural and environmentally sensitive areas (*Figure 4*). Epoch 2 will also see a greater number of NAI Policy Units with a ‘cease to maintain’ sub-category (increasing from one to eight in Epoch 2) meaning that it will become technically, economically or environmentally unsustainable to maintain existing defences. Ceasing to maintain existing defences will likely come with unknown investment requirements needed to ensure the safe removal and disposal of defence waste material, including health and safety costs. Therefore, a move to more adaptive measures will be required.

Reasons for NAI Compliance

- **No intervention undertaken:** 148 Policy Units cite ‘NAI’ in line with the policy sub-category of ‘no need to defend’. Within such Policy Units NAI does not require major coastal scheme or projects to be delivered e.g., sea wall construction or removal of existing defences.
- **Local and private works permitted in line with NAI sub-category:** 24 Policy Units reference small scale, unintrusive local or private defence maintenance and works that are considered in line with the applied ‘local activity only’ sub-category. Policy Units reference repairs to access points such as slipways and jetties, defences below coast paths, sluice gates and patch repairs to existing defences. These interventions do not change SMP policy intent or impact coastal behaviour.
- **Monitoring and inspections:** 5 Policy Units reference T-98 inspections and limited monitoring, cliff falls for example, matching with sub-categories of ‘local activity only’
- **Setback, rollback and rerouting:** 3 Policy Units cite the roll-back and rerouting of the Wales Coast Path and 1 Policy Units references the setback of a new housing development in light of the NAI sub-category of ‘no need to defend’.
- **Withdrawal of maintenance:** 1 Policy Unit references the withdrawal of asset maintenance.
- **Habitat creation:** 1 Policy Unit references the creation of intertidal habitat following existing wall failure as part of the SANDS of Life project.

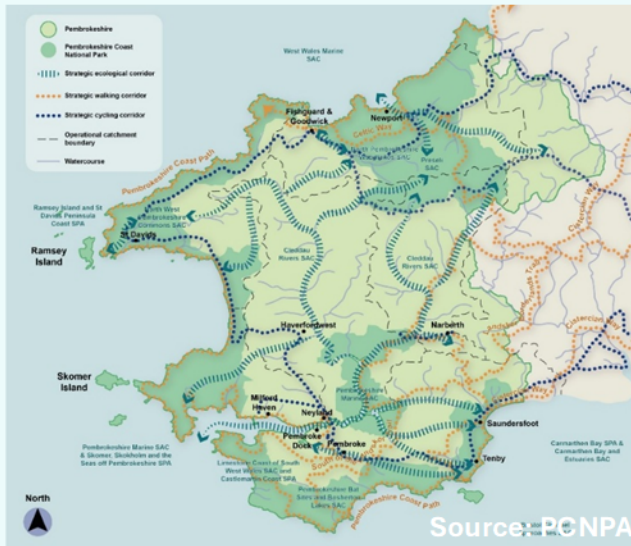
Reasons for NAI Non-Compliance

- **Land ownership disputes and private defence work:** 3 Policy Units cite private coastal defence works within areas of NAI, defending a caravan park and estate following major storms.

Although no major coastal projects or schemes are associated with NAI owing to its adaptive nature, the following case studies highlight how planning controls and monitoring have supported policy compliance:

Case Study: Coastal Change Management Areas (CCMAs)

Pembrokeshire Coast National Park



Pembrokeshire Coast National Park Authority (PCNPA) has introduced Coastal Change Management Areas (CCMAs) within its Local Development Plan to manage long-term coastal risk.

These areas identify land likely to be affected by erosion or flooding over the next century, based on Shoreline Management Plan (SMP2) policies and climate projections.

By restricting inappropriate development and requiring Coastal Change Vulnerability Assessments for proposals within CCMAs, PCNPA ensures planning decisions align with adaptive shoreline management.

This approach reinforces No Active Intervention (NAI) policies by preventing new hard defences, reducing future exposure, and supporting sustainable and adaptation and habitat conservation.

Case Study: Wales Coastal Monitoring Centre (WCMC)

Monitoring coastal change
for informed risk
management decisions



The Wales Coastal Monitoring Centre (WCMC) provides consistent shoreline monitoring and beach profile data, ensuring that coastal authorities have robust evidence to justify management decisions at the coast.

This monitoring framework allows Risk Management Authorities to demonstrate policy delivery through proactive observation rather than physical intervention. WCMC's data supports planning decisions, informs Coastal Change Management Areas, and will help underpin adaptive management triggers for future epochs.

Its work reduces uncertainty, strengthens confidence in decision making, and helps avoid unnecessary engineering, making it a cornerstone of sustainable coastal management in Wales.

The WCMC programme is informed by a Risk Based Methodology (RBM) meaning monitoring and surveys are focused on high risk populated areas. The inclusion of NAI and MR Policy Units within this programme will help future proof future coastal management decisions within Coastal Adaptation Pathways.

5. Cross-cutting Barriers to Adaptive Approaches

While overall compliance with SMP Epoch 1 policy is remarkably high, several systemic barriers affect delivery across all policy types. These barriers are particularly relevant for adaptive approaches such as NAI and specifically MR, which has the lowest compliance rate (44.4%) and is set to become the fastest-growing policy type in Epoch 2 (*Figure 3*). If these issues persist, national compliance could decline in the medium term (Epoch 2). The percentage each barrier accounts for national non-compliance can be seen in *Figure 7*.

Barriers are listed in order of times they were evidenced as a reason for non-compliance within the Epoch 1 reporting section of the proforma (*Figure A2*).

5.1 Resource / Capacity

Referenced within 25 Policy Units, Resource / Capacity has been identified as the primary barrier to SMP policy implementation, with shortages in staff time and specialist expertise limiting progress on adaptive approaches. This constraint was cited in 24 of the 40 non-compliant MR Policy Units, often alongside funding issues. Even where funding is available, lack of capacity prevents feasibility studies, business case development, and early engagement, slowing delivery of SMP policy intent.

5.2 Funding Constraints & Partnership Working Complexities

22 Policy Units identified Funding Constraints as one of the barriers to SMP policy implementation. Traditional FCERM funding models prioritise people and property, making it difficult to secure investment for MR schemes that focus on long-term sustainability or habitat creation. Large-scale interventions such as the safe removal and disposal of defence waste material, setback defence construction, and intertidal habitat creation require significant capital investment and often fall outside these standard cost-benefit thresholds.

5.3 Land Ownership

14 Policy Units identified Land Ownership as one of the barriers to SMP policy. To enable Management Approaches such as intertidal habitat creation and the set back and removal of defences associated with MR, complex and timely negotiations with multiple private landowners or large estates is required. These come at a financial cost, alongside a resource and capacity cost to RMAs, delaying, or in worst cases preventing, delivery of SMP policy. Furthermore, legal uncertainties around asset responsibility and liability create risk for RMAs, particularly where private defence assets exist.

5.4 Infrastructure Dependencies (including Public Rights of Way and Highways)

Infrastructure dependencies is a broader category and encompasses 14 Policy Units referencing legal barriers, access, Public Rights of Way implications and infrastructure constraints. Successful MR requires coordination, engagement and partnership funding with a range of public departments alongside private utility and infrastructure providers. For example, roads, railways, buried utilities and public rights of way often run through MR Policy units. Relocating or protecting them adds complexity and cost.

5.5 Unknown Asset Ownership

4 Policy Units reference Unknown Asset owners as being a barrier to SMP Epoch 1 delivery. Unclear responsibility for ageing coastal structures complicates planning and delivery for all SMP policy Management Approaches, especially complex NAI areas. These administrative gaps lead to delays in compliance recording and makes the communication of future management intent complicated.

5.6 Community Engagement

Community opposition often arises when SMP policy requires changes that affect land use, property access, public access and habitat creation, particularly prevalent in MR and NAI areas. Key drivers include:

- Loss of land or property value: Residents may resist policies that allow natural coastal processes to reclaim land, particularly where there is likely to be a detrimental impact on their property, community or livelihood.
- Cultural and heritage concerns: Areas with historic or recreational significance often face strong local resistance.
- Limited understanding of the long-term SMP policy intent: Opposition can stem from misconceptions about long-term benefits versus short-term impacts.
- Political sensitivity: Local representatives may hesitate to support unpopular measures, delaying implementation.

6. Strategic implications for Epoch 2 and Recommendations

6.1 Strategic implications for Epoch 2

Overall, Wales has achieved a remarkable 90.1% compliance with SMP Epoch 1 policies, with barriers affecting only 10% of Policy Units. However, these mainly hinder sustainable adaptive Management Approaches such as NAI and MR, which are set to increase significantly in future Epochs. If left unresolved early in Epoch 2 there is a risk SMP policies will be challenged in favour of short-term, reactionary coastal protection measures. Further, without early planning, transitions to MR or NAI may be delayed, increasing long-term costs and exposure to climate impacts, increasing risk to coastal communities.

These barriers reflect systemic challenges likely to persist or intensify in Epoch 2. Progress is often stalled by FCERM funding regimes, fragmented ownership, and competing priorities. Without early engagement and alternative funding, adaptive approaches will be delayed, undermining SMP policy and environmental objectives.

Land ownership issues and unknown asset responsibilities complicate delivery of realignment or habitat creation schemes, which often require negotiation and legal agreements well in advance. Where private works contradict SMP policy intent, enforcement and stakeholder engagement become critical to avoid policy drift. Similarly, resource and capacity gaps indicate that even where technical solutions are known, RMAs lack the dedicated resources to develop adaptation pathways, model triggers, or meaningfully engage communities. This creates a risk that Epoch 2 actions will remain aspirational rather than operational.

6.2 Recommendations:

The emerging recommendations coming from this report are to be discussed by the WCGF and will form the basis of its ongoing and future workplan. *The recommendations will be considered against national and regional priorities, resources and capacity so may be subject to change.*

- **WCGF to develop a Workplan that fully incorporates and prioritises the Measure 11 recommendations.**
 - To drive the implementation of Measure 11 recommendations
- **Review all 22 Policy Units that identify ‘Funding Constraints & Partnership Working’ as barriers.**
 - To determine precisely what "funding constraints" mean on a case-by-case bases and clarify if relevant funding has been requested.
- **Undertake a “Theory of Change” exercise across five MR locations.**
 - To identify root causes of non-delivery and determine priority strategic actions to improve deliverability across MR locations in Wales.
- **Undertake a “Who has stake at the coast” analysis.**
 - To identify who holds the cards in areas of SMP Policy change or transition to clarify which organisations, landowners and communities influence SMP Policy deliverability.
- **Build long-term monitoring inputs to support adaptation planning.**
 - To contribute to the identification of priority locations for Coastal Adaptation Planning.
- **Develop a coordinated communication and engagement approach for the Forum.**

- To secure a consistency between local, regional and national messaging on SMPs and FCERM more generally to avoid erosion of strategic intent.
- **Call for Welsh Government to Progress Measure 18 of the National Strategy in collaboration with WCGF.**
 - Measure 18 of the National Strategy for FCERM in Wales: *‘The Welsh Government to work with the Coastal Groups and NRW to develop further guidance on coastal adaptation by 2022’.*

Further information on how these recommendations have been incorporated into the Forum’s workplan will be made available on the [WCGF website](#).

Glossary / Definitions

Adaptation Pathways:

A flexible planning approach that uses multiple options and triggers to manage coastal risk over time, allowing policy changes when conditions require.

Advance the Line (ATL):

An SMP Management Approach involving construction of new defences further seaward to reclaim land or provide additional protection.

Capital Funding:

One-off investment for infrastructure projects, such as new flood defences or managed realignment schemes.

CCMA (Coastal Change Management Area):

A planning concept used by local authorities to restrict development in areas at risk of coastal erosion or flooding.

Coastal adaptation:

The process of adjustment due to actual or expected climate change. Adaptation seeks to moderate or avoid harm to communities.

Coastal Groups:

Regional partnerships of local authorities, Natural Resources Wales (NRW), and other stakeholders responsible for developing and implementing SMPs.

Epochs:

Timeframes used in SMPs to guide policy implementation:

Epoch 1: 2005–2025 (short term)

Epoch 2: 2025–2055 (medium term)

Epoch 3: 2055–2105 (long term)

FCERM (Flood and Coastal Erosion Risk Management):

The management of all aspects of flood and coastal erosion risk through understanding risk (probability and consequence) and seeking to modify these factors to reduce its impacts.

FCEC (Flood and Coastal Erosion Committee):

An independent advisory body to the Welsh Ministers and Welsh Risk Management Authorities on matters relating to flood and coastal erosion risk management

Hold the Line (HTL):

An SMP Management Approach that maintains or improves existing coastal defences to keep the shoreline in its current position.

Health Check Reports (HCRs):

Periodic assessments carried out as part of the SMP-Refresh process to review the status of Shoreline Management Plans. These reports identify gaps, priority actions, and barriers to implementation, ensuring SMPs remain actionable and aligned with national strategy objectives. Findings from Health Check Reports inform updates to SMP Action Plans and readiness for policy transitions.

Managed Realignment (MR):

An SMP Management Approach that allows the shoreline to move landward or seaward in a controlled way, often to create habitat and reduce reliance on hard defences.

Management Trigger:

A predefined condition (e.g., defence deterioration, sea-level rise benchmark) that signals when a policy transition should occur.

Measure:

Actions specified to achieve the objectives for managing flood and coastal erosion risk.

Measure 10:

Annual reporting measure under the National FCERM Strategy, focusing on SMP Action Plan delivery.

Measure 11:

Reporting measure under the National FCERM Strategy requiring Coastal Groups to assess SMP Epoch 1 policy implementation and readiness for Epoch 2.

NAI (No Active Intervention):

An SMP Management Approach that allows natural coastal processes to continue without new defences or major interventions.

NbS (Nature-based Solutions):

Approaches that use natural processes and ecosystems (e.g., saltmarsh restoration, dune management) to manage coastal risk sustainably. Natural Flood Management (NFM) is sometimes referred to as nature-based solutions, particularly in the Natural Resources Policy, however, the NFM term is more widely used and recognised in flood risk management

NRW (Natural Resources Wales):

The principal environmental regulator and advisor in Wales, responsible for flood and coastal risk management oversight.

OBC / SBC (Outline Business Case / Strategic Business Case):

Stages in project development for securing funding for FCERM schemes.

Policy Unit:

A small section of coastline within an SMP that shares similar coastal processes and risk characteristics, managed under a specific policy.

Revenue Funding:

Ongoing operational costs, such as maintenance, monitoring, staffing, and community engagement.

RMAs (Risk Management Authorities):

A Welsh Risk Management Authority is defined in Section 6 of the Flood and Water Management Act 2010 as NRW; a Lead Local Flood Authority, a district council for an area where there is no unitary authority, or a highway authority wholly in Wales; an internal drainage board for an internal drainage district that is wholly or mainly in Wales; a water company that exercises functions in relation to an area in Wales.

SMP (Shoreline Management Plan):

A large-scale assessment of the risks associated with coastal processes helps reduce these risks to people and the development, historic and natural environments. Shoreline Management Plans are based on sediment cell boundaries relating to the movement of sand and shingle along the coast.

SMP-R (SMP Refresh):

A review process to update SMP Action Plans, ensuring they remain relevant and deliverable.

WCGF (Wales Coastal Group Forum):

A national forum representing Welsh Coastal Groups, providing strategic direction and promoting best practice in coastal management.

WCMC (Wales Coastal Monitoring Centre):

Provides consistent shoreline monitoring data (e.g., LiDAR, beach profiles) to support evidence-based coastal management.

Appendix A: Measure 11 reporting proforma

SMP Information					SMP Policy						Does SMP Policy Transition in Epoch 2
Local Authority	EA Area / NRW	Policy Unit	location	Length(km)	Present policy (Epoch 1) 2025 - 2055	Present sub-category	Intermediate policy (Epoch2) 2025 - 2055	Intermediate sub-category	Target policy (Epoch 3) 2055 - 2105	Target sub-category	Policy Rationale / Intent of Management

Figure A1: SMP information captured within the Measure 11 reporting proforma.

Epoch 1 Reporting				
Has Epoch1 Policy been OR is being delivered? (Y/N)	YES - How Please provide detail of how the SMP headline policy in Epoch 1 has or is being delivered e.g., schemes, strategies or actions (free text)	NO - What has prevented the implementation of Epoch 1 policy Select all that apply (drop down - multiple choice)	Please select the primary reason for non-compliance with SMP Epoch 1 Policy If applicable (drop down)	Further explanation of Columns P and Q Please use this box to provide extra detail for the reason(s) selected in Column P and Q (free text)

Figure A2: Epoch 1 reporting information captured in the Measure 11 reporting proforma.

Epoch 2 readiness				
Have actions to prepare for the transition in policy from Epoch 1 to 2 been considered (Y/N)	YES - What actions are currently being taken / considered to progress the policy transition? Please provide detail of any actions that have been included within your respective SMP Action Plan (free text)	Have any of the following Management Triggers been considered to support the change in policy from Epoch 2 Triggers taken from 'Position Paper 1b Management Triggers - Appendix A' - note that this is not a comprehensive list (drop down - multiple choice)	Further explanation of Column U Please use this box to provide extra detail (free text)	NO - What is preventing preparations for the transition in Epoch policy? (drop down - multiple choice) Further explanation of Column W Please use this box to provide extra detail for the factors preventing preparations for the transition in Epoch policy (free text)

Figure A3: Epoch 2 readiness information captured in the Measure 11 reporting proforma.

Major Policy Change		Health Check Report
Do you intend to trigger a Major Policy Change request? (Y/N)	YES / POTENTIALLY - on what grounds (drop down)	SMP Policy review recommendation Has the Policy Unit marked for 'SMP Policy Review' within the SMP-r Health Check Report (Y/N)

Figure A4: Additional / contextual information captured in the Measure 11 reporting proforma.

Appendix B: SMP Policy Sub-categories

No Active Intervention

Policy Subcategory	Application
No need to Defend	Where there are no assets at risk and no defences are present. There is no requirement or intention to introduce defences.
Do not Defend	Where no defences are present, and it would be technically or environmentally unacceptable to introduce any because of the impact.
Cease to Maintain	Where defences are present, but the intent is that no further works are carried out to maintain them.
Local Activity Only	Where works to repair or construct short stretches of defences within a long length of otherwise No Active Intervention shoreline might be proposed to provide local protection (such as to a slipway, access point or isolated properties).
Remove Defences	Where defences are present, and the intent is to remove them.

Hold The Line

Policy Subcategory	Application
Maintain/Replace	Where protection is currently provided by coastal defence structures or managed beaches, and the intention is to retain defence along current alignment, replacing any failed defences as necessary and if justifiable. This can include modifying defence structures and altering the Standard of Protection.
New Defences	Where no defences currently exist, but the intention is for new defences to be introduced, potentially following a No Active Intervention or Managed Realignment policy.
Repair Not Replace	Where protection is currently provided by coastal defence structures that might be maintained and repaired, but not replaced at failure or at the end of their life.
Temporary Intervention	Allow non-permanent or short-term measures that temporarily reduce flood or erosion risk (such as while transition measures or adaptation plans are being established).
Local Activity Only	Where works to repair or construct short stretches of defences within a long length of otherwise No Active Intervention shoreline might be proposed to provide local protection (such as to a slipway, access point or isolated properties).
Natural Features	Where the intent is to maintain the integrity of the natural feature (such as a dune, spit or shingle barrier) to provide a defence function rather than fix its position by active management of the natural feature but not structural intervention.

Managed Realignment

Policy Subcategory	Application
Set-back Defence	Where the intent is to defend elsewhere in flood plain inland from present shoreline, or allow erosion or retreat to a defined alignment, where new defences could be constructed at that new location.
Slow Erosion	Where non-permanent or short-term measures would be accepted that slow, not stop, erosion of cliffs or soft backshore.
Remove Defences	Where defences are present, and the intent is to remove them to allow the shoreline to begin to realign (erode or flood to higher ground).
Temporary Intervention	Allow non-permanent or short-term measures that temporarily reduce flood or erosion risk (such as while transition measures or adaptation plans are being established).
Natural Features	Where the intent is to maintain the integrity of the natural feature (such as a dune, spit or shingle barrier) to provide a defence function rather than fix its position by active management of the natural feature but not structural intervention.
Repair Not Replace	Where protection is currently provided by coastal defence structures that might be maintained and repaired but not replaced at failure or at the end of their life.
Local Activity Only	Where works to repair or construct short stretches of defences within a long length of otherwise No Active Intervention shoreline might be proposed to provide local protection (such as to a slipway, access point or isolated properties).
Placeholder	Situations where Managed Realignment has been used as a placeholder because of a lack of knowledge, for example, where further studies were needed to confirm approach. Situations where Managed Realignment has been used as a placeholder because of uncertainty on a policy relating to a dependency on other asset owners (for example, to relocate a highway or golf course), and where there was a need for measures to first be developed to relocate people. Situations where a Managed Realignment policy has been set to deliver a suite of different actions across a management area.

**The Wales Coastal
Group Forum would
like to thank all
involved in the
Measure 11
reporting process.**