



Llywodraeth Cymru
Welsh Government

Derivation Report – identifying Strategic Resource Areas

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Applying SRA Design Criteria to Refined Resource Areas to identify SRAs

Introduction

This report supplements and should be read alongside the ABPmer-authored 'Developing Strategic Resource Areas for Marine Planning: Derivation Report for progressing potential SRAs' (June 2023). Together, these two documents set out the mapping process by which Welsh Government has identified Strategic Resource Areas (SRAs).

Mapping SRAs aims to ensure that the ability of future generations to meet their needs is not inappropriately compromised by short term planning and consenting decisions. SRAs identify areas of natural resource which may have potential to support future use by specific marine sectors (referred to as 'focus sectors'). Welsh National Marine Plan (WNMP) policy SAF_02 will be applied to identified SRAs. This aims to ensure that new development doesn't inappropriately and without careful consideration block the potential for the focus sectors to submit future applications for consent to locate activity in these areas.

All potential SRAs will be subject to consultation and will take effect when an area is formally identified as an SRA through the publication of a Marine Planning Notice (MPN).

The process for mapping and identifying SRAs is divided into four steps:

- Step 1: identifying, mapping and validating initial baseline Resource Areas.
- Step 2: refining these baseline Resource Areas to take account of technical considerations and hard constraints.
- Step 3: applying SRA Design Criteria to Refined Resource Areas to identify potential SRAs for consultation.
- Step 4: following consultation, if appropriate, safeguarding SRAs via Marine Planning Notices activating WNMP policy SAF_02.

ABPmer's June 2023 report covers the first two steps of this process. This report documents the third and fourth steps – applying SRA Design Criteria to Refined Resource Areas in order to identify SRAs.

1. Cleaning Refined Resource Area maps

Welsh Government worked with stakeholders to identify sector-specific spatial constraints relating to the baseline Resource Areas (RAs) for all the focus sectors for the SRA mapping project.¹ These include hard constraints where there is no realistic prospect of a sector operating in a specific area, for example, because of fixed infrastructure. They also include soft constraints, which will likely be a consideration in project planning and may influence prospects for consent in a given area. Examples of soft constraints include ecology, seascapes and variable human activity such as fishing or recreational boating.²

The baseline RAs were used as a starting point to map Refined Resource Areas (Refined RAs). These Refined RAs represent current best understanding of areas of resource with potential importance for a particular sector. They were identified following an ongoing and iterative process of mapping to remove hard constraints (as they occur and / or change) and may also incorporate spatial prioritisation where there are overlapping resources and therefore potential options for sustainable use. In line with the provisions of the WNMP, Welsh Government will regularly review and, where appropriate, update the Refined RAs to reflect changes in evidence, understanding, needs and technologies.

The Refined RAs identified through the SRA mapping project represented the starting point for further consideration and, where appropriate, application of SRA design principles in mapping SRAs. Following discussion with stakeholders, soft constraints were not used to further refine the boundaries of Refined RAs, as soft constraints for the purposes of SRAs were considered best applied at a project, not plan, level.

In line with the SRA design principles, the boundaries of the mapped Refined RAs were tidied to remove small, fragmented areas which were considered to be too small or overly fragmented to usefully include within an SRA. This exercise was done systematically on a sector-by-sector basis, based upon expert judgment. For sectors which typically operate at a broader scale, larger areas were removed compared to sectors such as aquaculture which can operate at a smaller scale. Example maps showing before and after tidying of fragmented areas for tidal stream energy are shown below (Figure 1).

¹ The focus sectors are tidal stream and range energy, wave energy, floating offshore wind, marine aggregates and bivalve and seaweed aquaculture.

² See 'Developing Strategic Resource Areas for Marine Planning: Derivation Report for progressing potential SRAs' (ABPmer, June 2023) for further details.

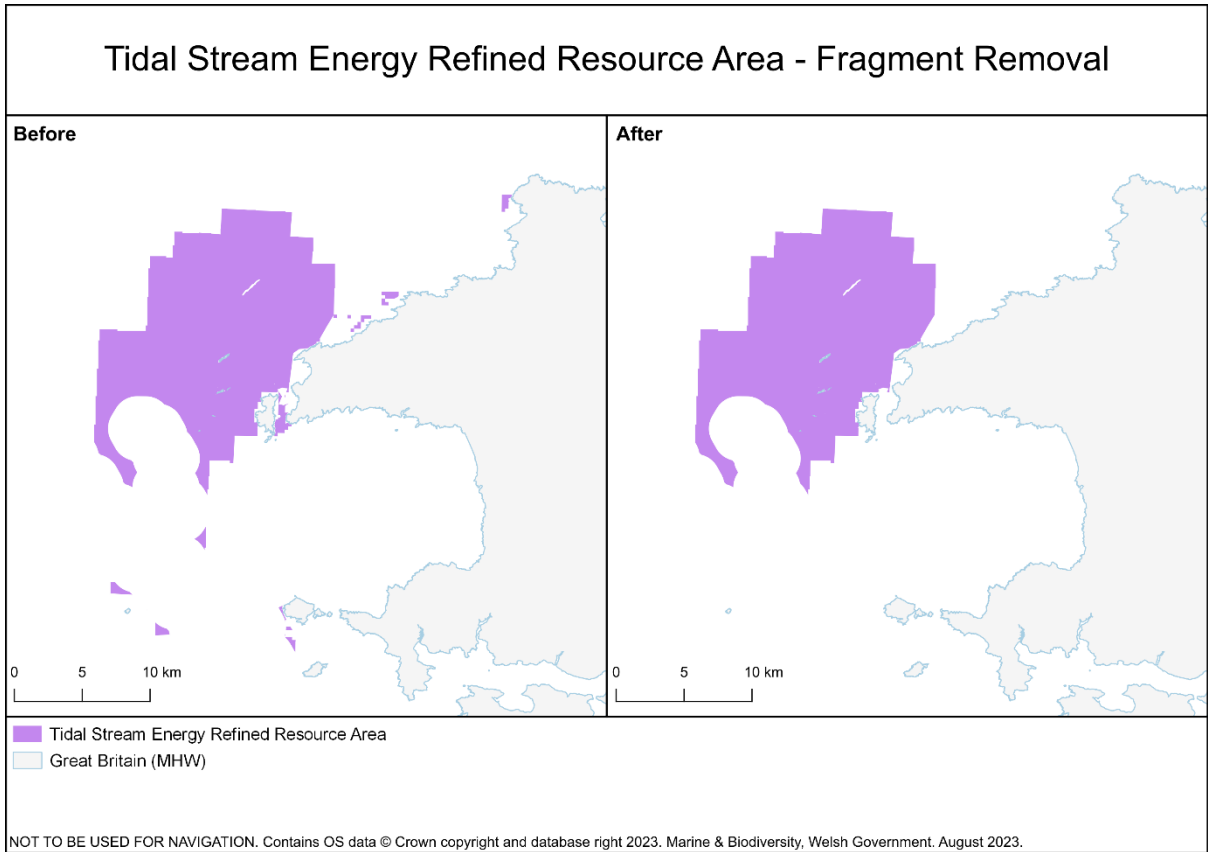


Figure 1

2. Soft constraints mapping

To help inform and support sector and project planning, Welsh Government has made the Refined RAs (with hard constraints removed) available on the [Wales Marine Planning Portal](#). Users are able to view this data layer, alongside the hard constraints data layers and an extensive range of relevant soft constraint layers, which can be turned on and off to understand spatial opportunities and constraints for a particular sector.

The soft constraints are grouped on the Marine Planning Portal (in categories 1-4) to indicate stakeholder consensus on the likely level of constraint represented by each consideration shown for a particular layer. The higher the score, the more significant the constraint – this is specific to the sector being considered.

In some situations, soft constraints may act as a very significant limitation to the prospects of future development potential within an SRA for certain types of projects. However, in other situations, design, mitigation and/or compensation measures may provide an option to allow a project to proceed without inappropriate adverse impacts, meaning a soft constraint does not necessarily limit development in all circumstances.

Applying this data in early project planning will help encourage the right types of developments to come forward in the right place and in the right way. Where multiple soft constraints spatially and temporally overlap, any development proposal should recognise the potential higher degree of consenting complexity and the need to address this to the satisfaction of the relevant public authority decision maker. Welsh Government is exploring opportunities to combine data layers to allow an integrated understanding of relative constraint specifically for each sector.

Having this spatial data facilitates greater understanding around the future prospects for a sector, the scope for coexistence in a given area and where might be the best location for certain uses under different scenarios.

Welsh Government intends to keep this spatial evidence under review and will update it from time to time, including updating the RAs and Refined RAs. Sector 'supporting' WNMP policy focusses on the resources relevant to a sector and encourages public authorities, the sector and others to collaborate to understand opportunities for future sustainable use and, where appropriate, to define SRAs.

SRAs may be introduced for a sector where considered appropriate. The soft constraints mapping available on the Marine Planning Portal is also relevant to SRAs in the same way as it is relevant to a wider baseline (and Refined) RA.

3. Approach to progressing Strategic Resource Areas

The initial SRAs are focused on tidal stream energy and were consulted on between March and June 2024. The decision to focus on tidal stream energy SRAs in the initial phase reflects that tidal stream energy is a high-profile but emerging and early-stage priority sector, with potential to play a part in the decarbonisation of our energy system and achieving net zero. It is dependent on relatively small and discrete areas of resource which are relatively well understood. Safeguarding these key resources through the introduction of SRAs is, therefore, key. This should help ensure the potential for the tidal stream energy sector to submit future applications to locate activity in these areas is not inappropriately compromised by short term planning and consenting decisions relating to other sectors. There is good confidence in the evidence used to map SRAs for tidal stream energy.

As the majority of developer interest and marine activity takes place nearer the coast, the initial proposed tidal stream SRAs will be focused in the inshore area (within 12nm of the coastline).

The initial SRAs are deliberately limited and small-scale in approach, focusing on an early-stage, emerging sector, which is a policy priority for Welsh Government. Not progressing SRAs for other sectors in this initial tranche does not mean there is no benefit in doing so. As an integrated planning process, it is important that marine planning takes a holistic approach across both established and innovative and emerging sectors. Therefore, building on the outcome of the initial consultation and informed by the views expressed by our stakeholders and communities, we will look to progress further SRAs for further sectors, or introduce spatial guidance in other ways as part of our ongoing marine planning work.

Specifically, we will work with stakeholders to refine spatial data and mapping, enabling us to develop proposals for progressing towards identifying potential aquaculture SRAs in the inshore area. We will also consider the merits of an SRA approach for marine aggregates and other important sectors which interact with each other in the inshore plan area. This includes wave energy and tidal range, emerging and innovative sectors with potential to play a role in the decarbonisation of our energy system and offer employment opportunities for our coastal communities. As both these sectors are at a comparatively early stage of development, with wide areas of potential resource, we will continue to work to develop understanding of the resource and spatial needs, to inform considerations on the merits of proposing SRAs.

For the offshore area, we will work with the Crown Estate to develop mapping and understand the potential benefits of proposing SRAs for floating offshore wind. Floating offshore wind has the potential to contribute significantly to decarbonising the energy system and achieving net zero for Wales. It also has the potential to offer significant and high quality employment and supply chain opportunities, supporting our coastal communities. We therefore place priority on developing marine planning tools to maximise the contribution floating offshore wind can make and benefits it can provide, both to our communities and our ambitions to reach net zero, over the medium to longer term.

4. Derivation of SRAs for Tidal Stream Energy

The following sets out the stepwise mapping process for tidal stream energy, moving from the Refined RA to SRAs.

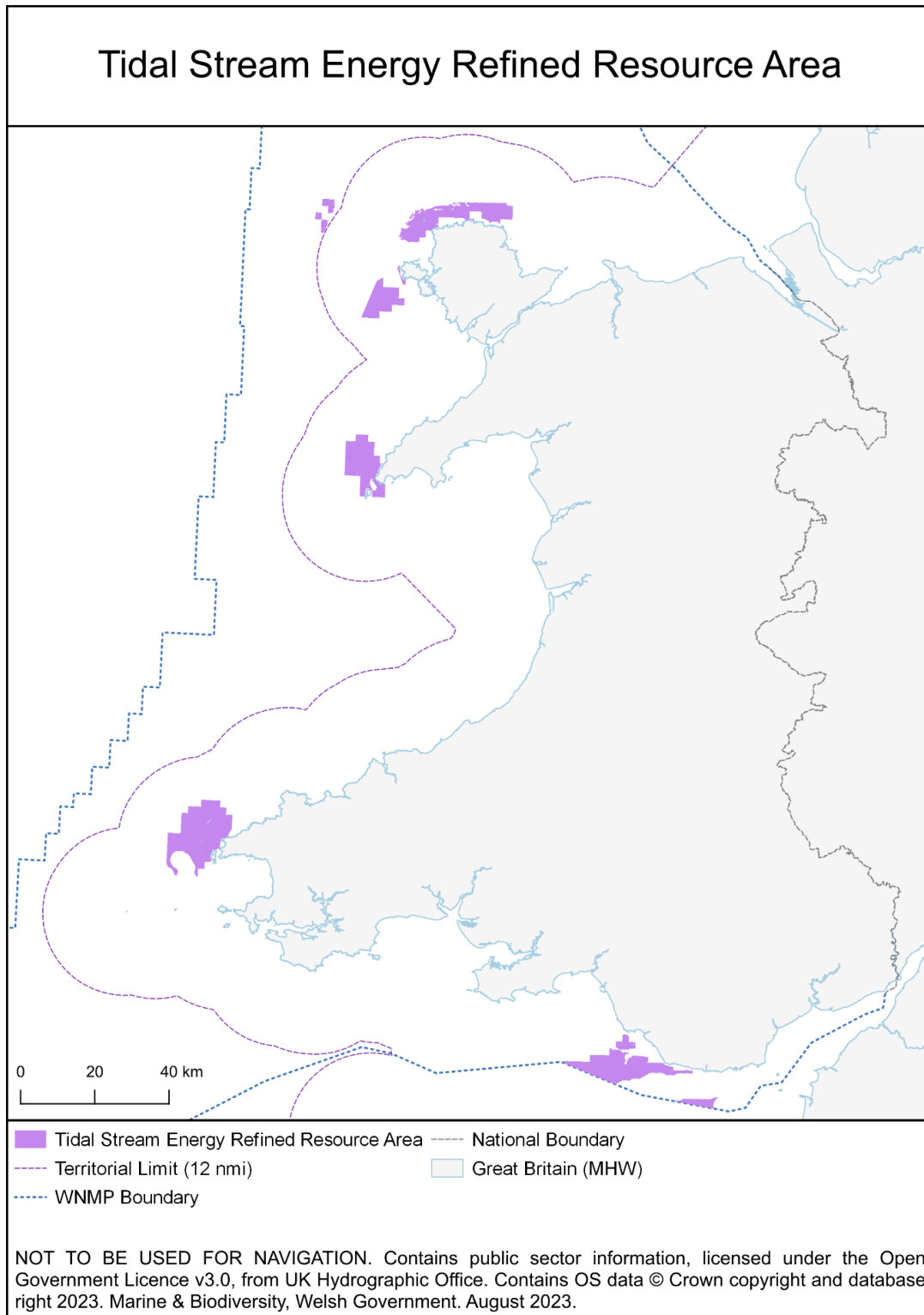


Figure 2 above shows the Refined RA for tidal stream energy after removal of hard constraints following stakeholder workshops.

The following steps were applied to focus the Refined RA into SRAs for tidal stream energy.

Focusing on the inshore plan area:

While some tidal stream resource occurs in the offshore plan area, for example west of Anglesey, the initial SRAs for tidal stream are focused on the inshore plan area (within 12nm of the coast). Tidal stream is an emerging sector, with different types of tidal stream devices at various stages of proof of concept and testing. The resource in the inshore plan area is therefore likely to be of most interest in the short to medium term. The tidal stream SRAs have therefore been focused on the inshore area, with the small areas of resource outside of 12nm not included within the scope of these of SRAs.

Nearshore areas:

Areas of potential tidal stream resource occur nearshore in some areas around the Welsh coast. It is recognised that, in practice, operating very nearshore is unlikely to be practical or viable. For this reason, it was determined that a 500m inshore limit would be applied to the SRA mapped areas. This approach is in keeping with the location of Morlais tidal stream demonstration zone, which has a minimum inshore passage of 1km from the coast (and generally much wider than this).

Boundary Simplification

In line with the SRA Design Principle to avoid disproportionately complex boundaries, after removing areas further than 12nm or within 500m of the shoreline, the boundaries of remaining areas were tidied and simplified, using a largely automated process (see Figure 3b).

Figure 3a below shows the removal of nearshore areas of tidal stream resource that occur within 500m of MHW

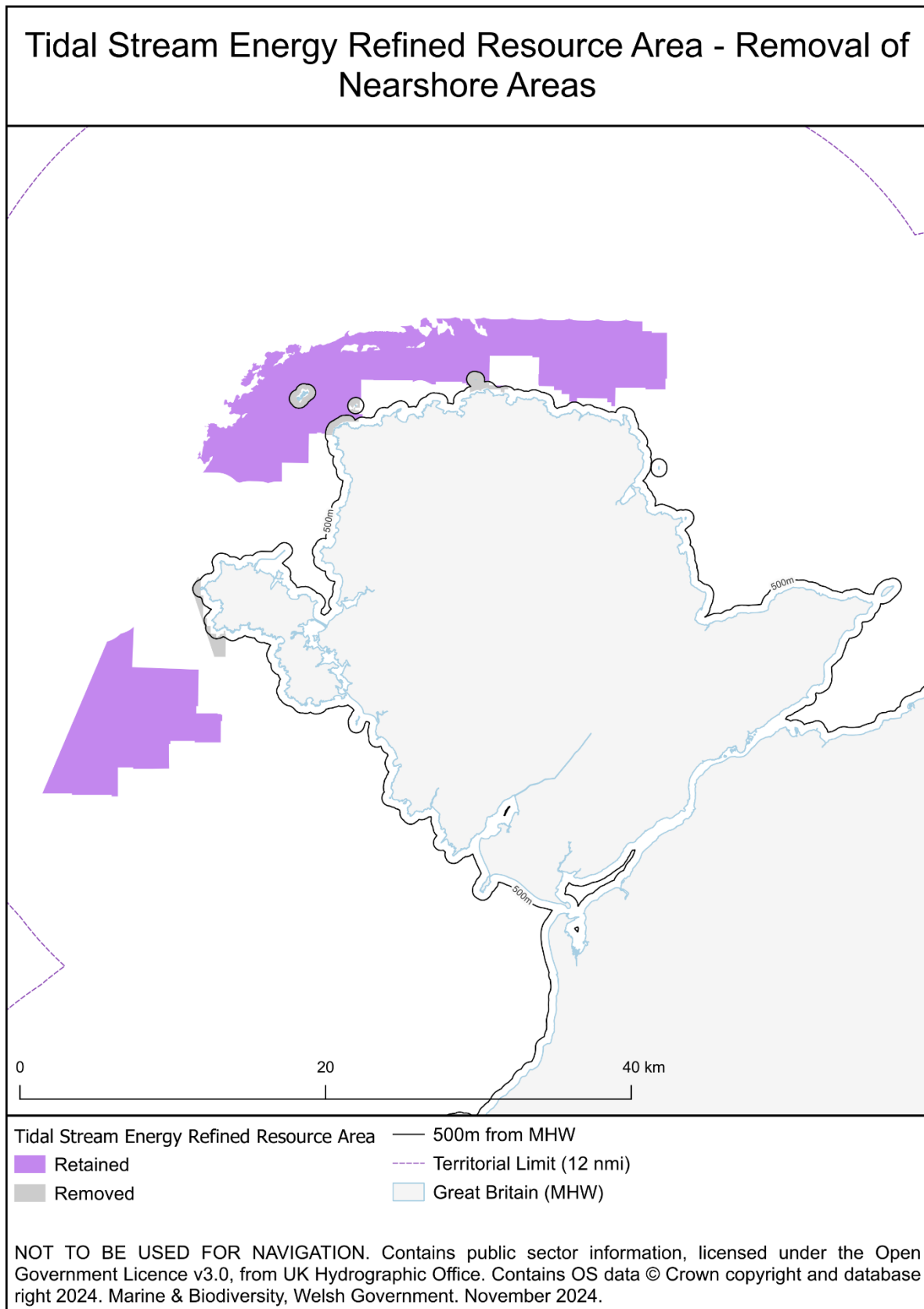


Figure 3a

Figure 3b below shows the boundary simplification of the Strategic Resource Areas

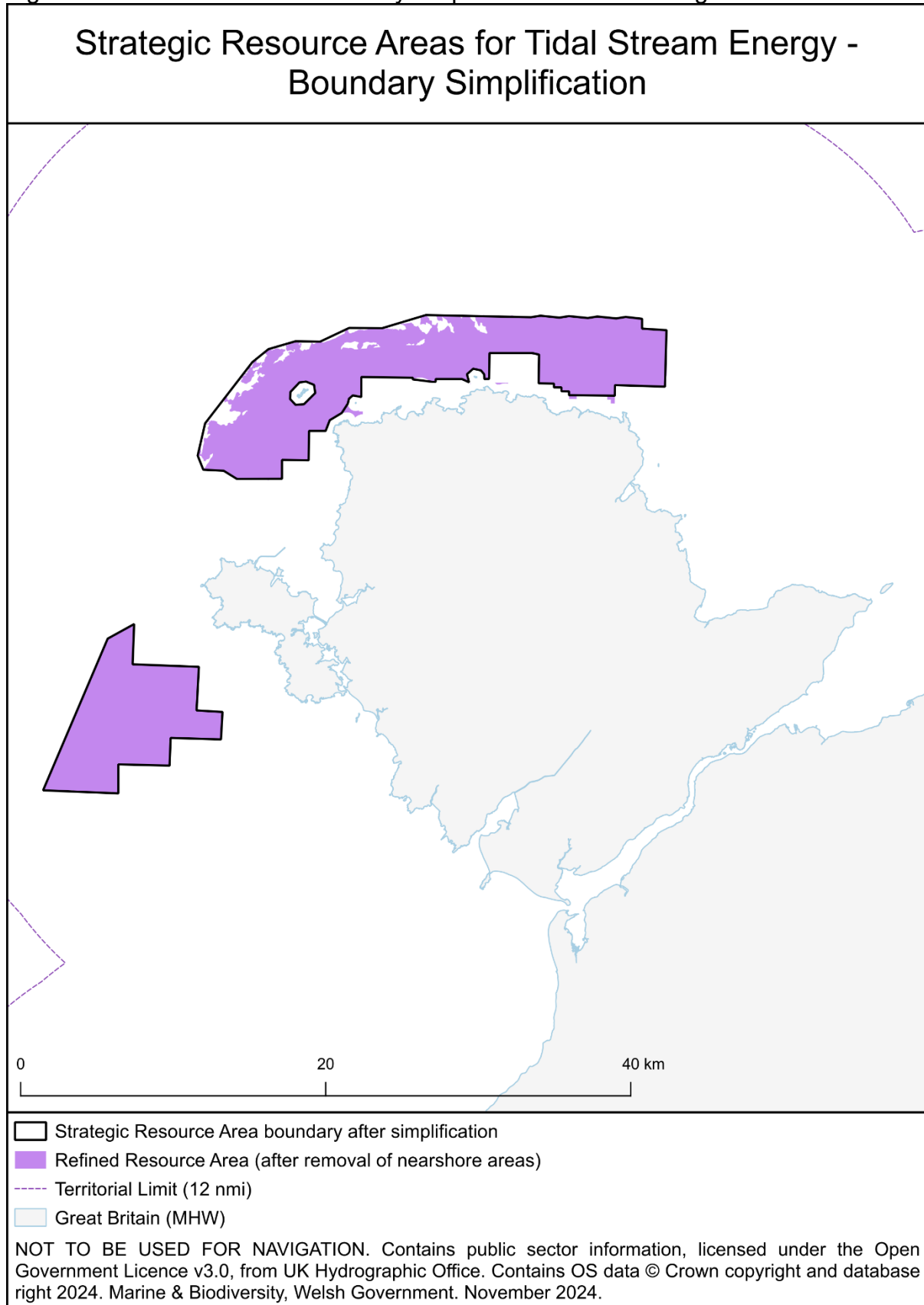


Figure 3b

Figure 3c below shows the Anglesey SRA, once the nearshore areas have been removed, and boundaries have been simplified.

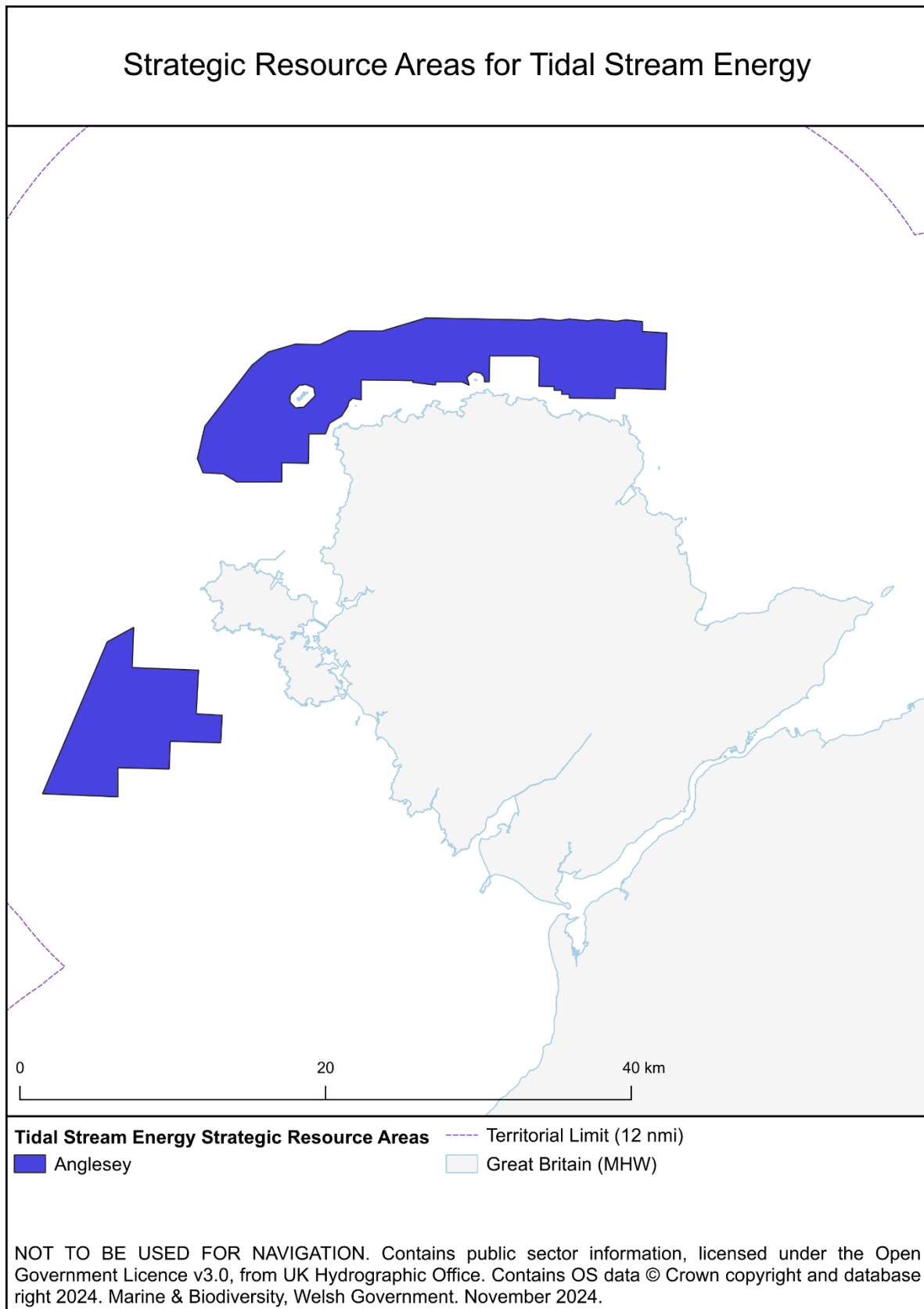


Figure 3c

Figure 4 below shows how the Refined RA was focused, removing areas beyond 12nm and within 500m of the coastline, and simplifying area boundaries, in order to identify SRAs for tidal stream energy.

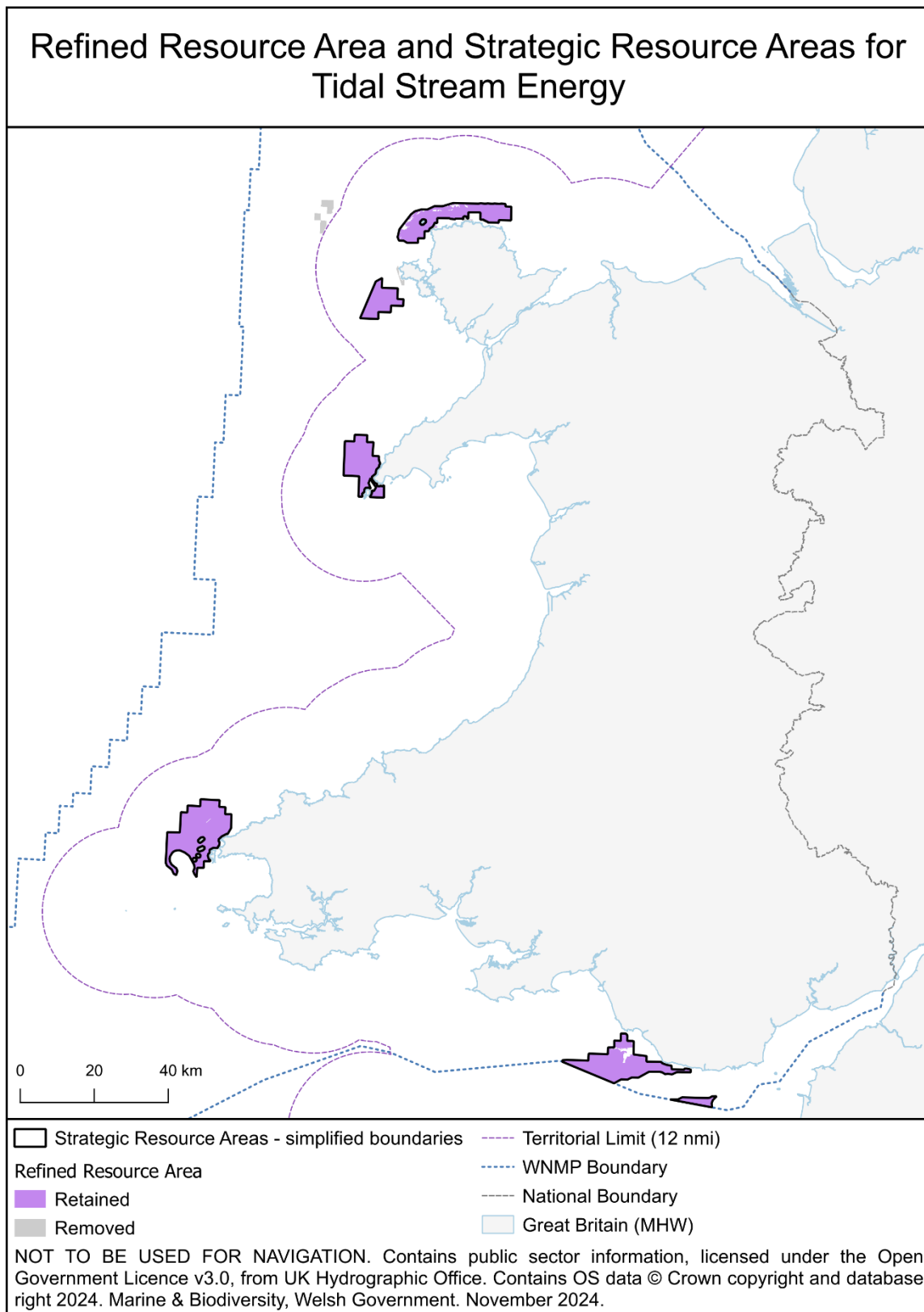


Figure 4

In recognition of legal and regulatory protection applying to shipping activity and navigation interests, some areas of tidal stream energy resource coinciding with busy shipping lanes (around Anglesey and off South Wales) have not been included within this initial iteration of the Refined RA or SRAs for tidal stream energy. However, it is recognised that, at an individual project-level, measures can often be taken to mitigate navigational safety implications and to ensure sufficient under-keel clearance, making development in these areas potentially viable subject to wider considerations. The identified SRAs should therefore be viewed alongside the wider non-safeguarded tidal stream energy RA (see Figure 5). This is an area where water depth and current speed may be appropriate to support tidal stream energy generation but no further consideration in relation to proposing an SRA has been undertaken.

The final SRAs for tidal stream energy are shown in Figure 6. The SRA are divided into regions for ease of reference. The tidal stream energy SRAs cover just under 667 km², which represents 95% of the wider Refined RA (which covers just over 704km²) and 31% of the originally identified more extensive tidal stream RA (which covers nearly 2,163 km²). For context, the Morlais tidal stream demonstration zone off Anglesey covers 35km² and has capacity, in principle, to generate up to 240MW of energy.

Resource Area and Strategic Resource Areas for Tidal Stream Energy

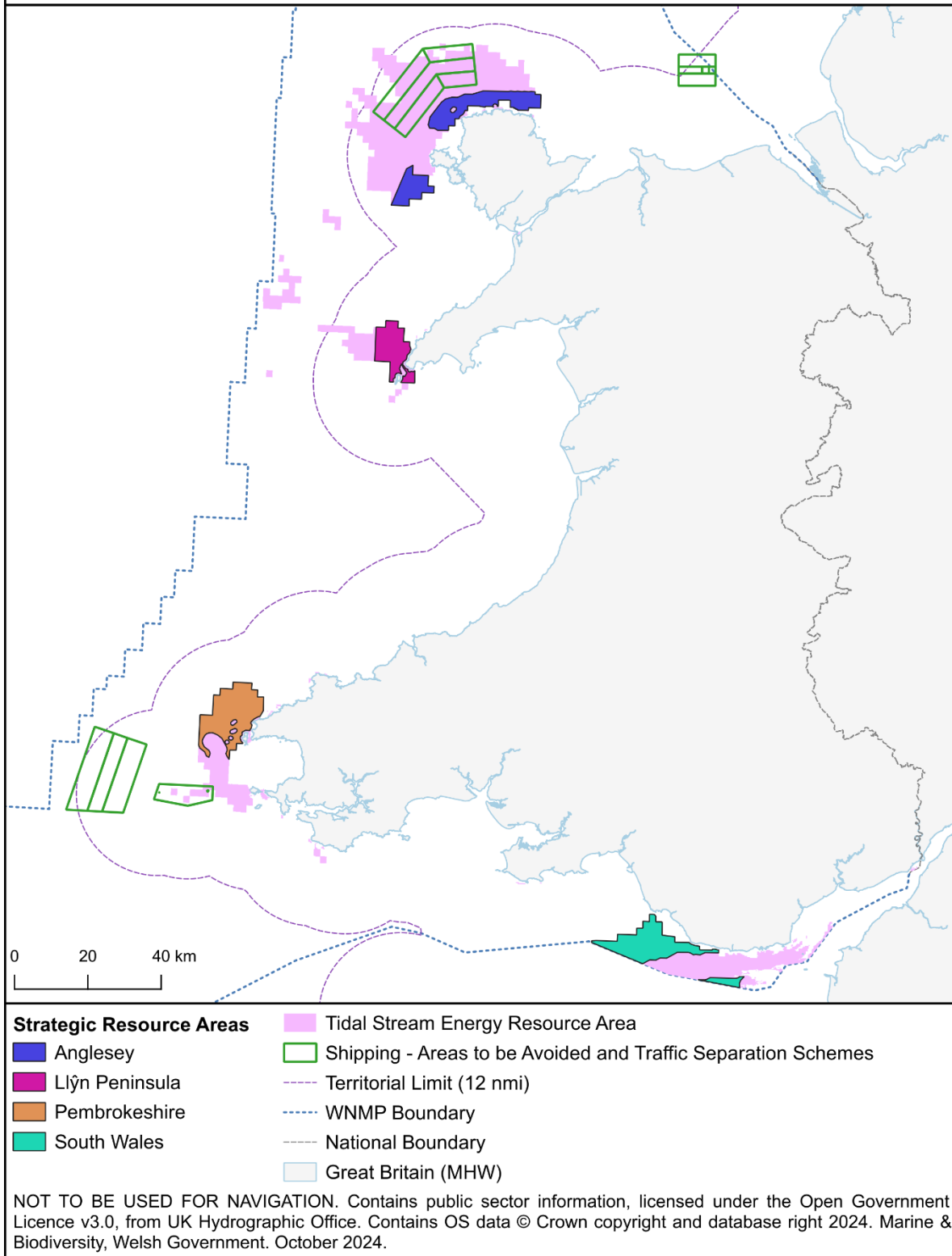
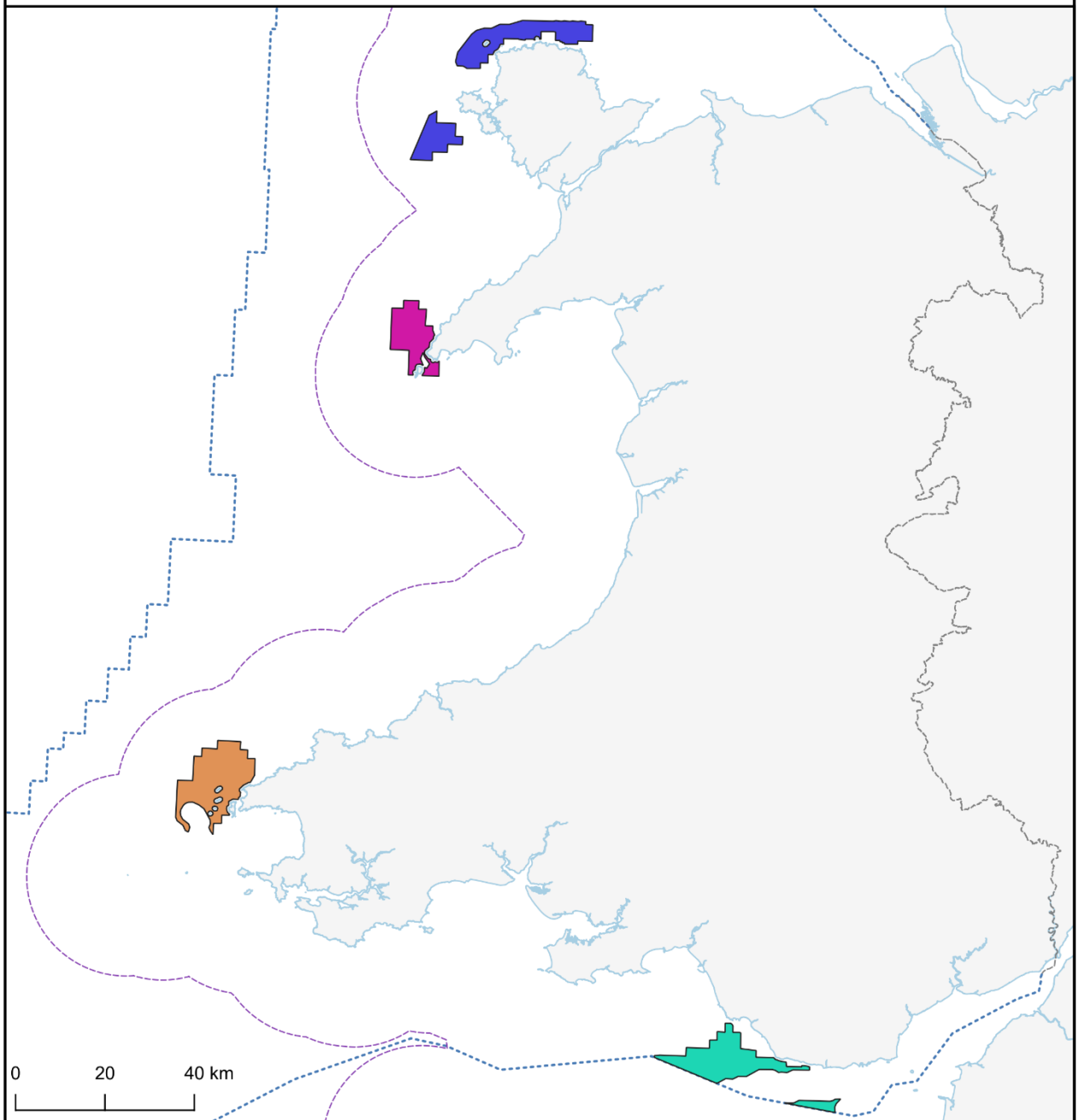


Figure 5 showing the SRAs and the wider RA for tidal stream energy, together with Shipping Areas to be Avoided and Traffic Separation Schemes.

Strategic Resource Areas for Tidal Stream Energy



- Tidal Stream Energy Strategic Resource Areas**
- Anglesey
 - Llŷn Peninsula
 - Pembrokeshire
 - South Wales
- Territorial Limit (12 nmi)
--- WNMP Boundary
--- National Boundary
Great Britain (MHW)

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Figure 6