Cyfoeth Naturiol Cymru
Natural Resources Wales

Ein cyf/Our ref:
Eich cyf/Your ref:

Welsh Government Building
Rhodfa Padarn
Llanbadarn Fawr
ABERYSTWYTH
Ceredigion SY23 3UR

Ebost/Email:
strategic.assessment@cyfoethnaturiolcymru.gov.uk
Ffôn/Phone: 0300 065 4687

National Strategy for Flood and Coastal Erosion Risk Management in Wales
Welsh Government
Cathays Park - 2
Cathays Park
Cardiff
Wales

17th September 2019

Dear Sir/Madam,

Consultation on the Strategic Environmental Assessment Environmental Report for the National Strategy for Flood and Coastal Erosion Risk Management for Wales

Thank you for your e-mail of 15th July 2019 consulting Natural Resources Wales on the Environmental Report for the Strategic Environmental Assessment (SEA) of the second National Strategy for Flood and Coastal Erosion Risk Management for Wales (NS-FCERM). Our comments are made in the context of our responsibilities under the Environmental Assessment of Plans and Programmes (Wales) Regulations 2004, and in our statutory role as advisers to Welsh Government on the natural heritage and resources of Wales.

In summary, our two main concerns are:

- We question the assessment that Objective C has a neutral effect on biodiversity as, given the conclusion of the Habitats Regulations Assessment (HRA) that adverse effects on site integrity cannot be ruled out, we consider that there is potential for negative impacts.
- We have concerns around the over-reliance placed on the National Habitat Creation Programme (NHCP) as mitigation/compensation.

We present our comments below, addressing Questions 8 and 9 from the consultation questionnaire first, followed by comments on mitigation and monitoring. Overall, we welcome the clear structure of the Environment Report, and your commitment to SEA.

1. Consultation question 8

Q8. Are there any other key issues or trends that you think should be considered in the Strategic Environmental Assessment – Environment Report?

Whilst climate change is referred to frequently in the Strategy and in the Environmental Report, we consider that there is still scope to strengthen how this key

issue is considered and addressed. The Strategy still does not make sufficient mention of the significant challenges associated with climate change, and the need for significant adaptation efforts, both on the coast but also in all river catchments (for example, more extreme events in rapid response catchments, urban areas or on big rivers).

When referring to natural carbon stores (in Section 3.2, Climatic Factors) the SEA should also recognise the importance of marine habitats such as seagrass, saltmarsh, macro-algae, etc. as blue-carbon stores. A range of protected marine and coastal habitats in addition to the ones already listed may be affected by sea-level rise and perhaps by flood risk management interventions, e.g. reefs, seagrass beds, rock pools, sea caves and lagoons.

The SEA and Environmental Report should highlight the need to strengthen consideration in the Strategy of the full range of climate change issues.

2. Consultation question 9

Q9. Are there additional environmental effects (including those on humans) that need to be considered when developing the Strategy?

2.1. *Range of impacts from hard-engineering flood defences*

The assessment underestimates the potential negative biodiversity impacts from hard-engineered flood defences. Where hard engineering is necessary this can have long term effects on habitats not just through coastal squeeze but from impacts including: habitat loss under the footprint of infrastructure, loss of connectivity, changes in tidal inundation, fragmentation, cutting off or alteration of supplies to habitats dependant on continued inputs of sediment, stabilization of naturally dynamic systems supporting pioneer/ruderal plant communities and increasing spread of Invasive Non Native Species.

2.2. *Increased risks from marine Invasive Non-Native Species (INNS)*

The potential for negative impacts on biodiversity from increased spread of INNS is understated. There are potential risks associated with coastal defences or coastal modification involving hard or artificial substrates and marine INNS. INNS can often colonise artificial substrates more readily / quickly than native species and use new hard substrate as “stepping stones” to increase their range.

2.3. *Effects of coastal defences on freshwater sites*

The SEA refers to the role of flood defences in protecting freshwater nature conservation sites from saline inundation. Whilst this may be true, the natural roll-back of marine and coastal habitats would be prevented by installation of coastal defences. The loss of and impacts to marine and coastal habitats as a result of these

measures needs to be balanced against any positive gains in a terrestrial / freshwater context.

2.4. *Effects of water quality on marine and coastal environments*

The connection between land management and water quality and the marine and coastal environments should be more clearly made. Activities within the catchment may ultimately lead to effects in the receiving coastal and marine environment. Changes in water chemistry and quality, flow regimes (including barriers / weirs inhibiting species movements), etc. resulting from management in the upper catchment can have an effect on marine habitats and species. Currently there are many references to the Water Framework Directive requirements, particularly in the Water Resources section, but these mostly refer to freshwater bodies; coastal and transitional water bodies should also be included.

3. Potential mitigation

3.1 *Limitations to mitigation through the National Habitat Creation Programme (NHCP)*

The reference to the National Habitat Creation Programme (NHCP) is welcome, but we are concerned that its potential to compensate the adverse impacts of the Strategy appears to be overstated. The NHCP is limited to compensating for losses to certain internationally protected sites through coastal squeeze.

The NHCP is specifically related to (and funded for) offset to the European site network as a result of the coastal squeeze impacts of the Shoreline Management Plans 2 (SMP2) implementation. It only relates to impacts from Risk Management Authorities (RMAs) and not third parties (with a few exceptions by specific criteria defined by Welsh Government). Furthermore, it only relates to plans and projects that are assessed under Article 6(3) and 6(4) of the Habitats Directive, and only for 'Hold the line' policy areas.

Thus, it is not concerned with compensating for losses of habitat not protected through the European site network, or with losses to European sites other than through coastal squeeze (e.g. through disturbance during construction works, loss to footings, through fragmentation, etc,). These limitations should be explained in the text so that it is clear that whilst NHCP is an important element of compensation, it is not a panacea. The strategy and SEA should be clearer about how impacts which fall outside the scope of the NHCP will be compensated.

The Strategy asserts that through the NHCP the mechanism is in place to provide compensatory habitat, so it would be useful to see evidence of how effective this has been to date, and an assessment of how likely it is that the programme can deliver the area and quality of compensatory habitat that will be required in the future. Our

response letter to the Habitats Regulations Assessment consultation contains more detail on this.

3.2 *Mitigation for marine INNS*

Measures should be included in the strategy to reduce the risk posed by the spread of INNS associated with coastal defences. These risks can be partly mitigated by securing a commitment to undertake a biosecurity risk assessment, followed by a mechanism to ensure appropriate measures are in place to monitor (and if necessary to eradicate/ contain) INNS as part of individual projects developed under the Strategy.

4. Monitoring

4.1 The monitoring identified through the SEA should focus on the significant environmental effects identified through the assessment. In particular, it is sensible to concentrate on negative environmental effects, and on effects where novel mitigation is proposed (in order to test whether the mitigation is effective). The only SEA receptor on which negative effects are currently predicted is biodiversity, through coastal squeeze and habitat loss. Therefore, this should be the primary focus of the SEA monitoring.

4.2 The NHCP is referred to as monitoring gains and losses in coastal habitat, but this targeted programme currently relies on other existing monitoring programmes, and does not cover all coastal habitats which may be adversely affected and so cannot be relied on as comprehensive monitoring. Also, research commissioned by Natural Resources Wales (*Oaten, J., Brooks, A. and Frost, N. 2018. Coastal Squeeze Evidence and Monitoring Requirement Review. NRW Report No: 307, 188pp, Natural Resources Wales, Cardiff*) has shown that monitoring coastal squeeze specifically, as opposed to coastal change, is extremely difficult and carries significant uncertainty. Therefore, the recommended approach was to intermittently (approximately every 6 years) review any available coastal change and sea-level rise data to understand trends and pace of coastal change, and that this monitoring could either be undertaken by Natural Resources Wales if funding were made available to do this or could be delivered through the Wales Coastal Monitoring Centre.

We strongly recommend that this monitoring is discussed further between Welsh Government and Natural Resources Wales to reflect Evidence Report 307, and the discussions between Natural Resources Wales and Welsh Government in February 2019.

4.3 We suggest additional monitoring of INNS. Existing monitoring under the Marine Strategy Framework Directive and Water Framework Directive may be useful.

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Preventing the introduction and spread of INNS is a target under Descriptor 2 of the Marine Strategy Framework Directive. The presence of non-native species is one of the significant pressures that could result in a water body failing to meet environmental objectives under the Water Framework Directive.

5. **Overall assessment of significant environmental effects from Objective C**
We query the assessment that Objective C, which includes construction of flood defences to protect communities at risk, has no significant, or neutral effect on biodiversity, flora and fauna. This may be an artefact of the absence of a category for mixed effects i.e. both negative and positive effects (yellow only appears to cover no significant or neutral effects, and this is clearly not correct for this receptor). Whilst we recognise that this objective includes works that have a range of positive and negative effects, some of the negative effects are significant. For example, the HRA has concluded that adverse effects on site integrity cannot be ruled out for works covered by this objective. In addition, as discussed above, there are a number of potential negative effects from hard engineered defences, including INNS. Given these negative effects we query whether on balance an overall negative effect should be recorded.

   By recording an overall negative effect the SEA will help to ensure that appropriate monitoring and mitigation is implemented for these impacts.

We hope the above is of use. Should you have any queries regarding these comments, please do not hesitate to contact Roger Matthews or Anne MacDonald, via strategic.assessment@cyfoethnaturiolcymru.gov.uk.

Yours sincerely,

Moira Reynolds
Corporate Planning & Performance and Strategic Assessment Manager