

Newport Transporter Bridge

Shadow Habitat Regulations Assessment (sHRA)

Newport Norse

2428

January 2024



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S0 – Work in progress	S1 – For coordination	S2 – For information
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List of Abbreviations

Abbreviation	Full Description
AA	Appropriate Assessment
CEMP	Construction Environmental Management Plan
CIEEM	Chartered Institute of Ecological and Environmental Management
EcIA	Ecological Impact Assessment
HRA	Habitats Regulations Assessment
LPA	Local Planning Authority
LSE	Likely Significant Effects
NGR	National Grid Reference
NRW	Natural Resources Wales
SAC	Special Area of Conservation
SECG	Severn Estuary Coastal Group
SIAA	Statement to Inform an Appropriate Assessment
SMP	Shoreline Management Plan
SPA	Special Protected Area
WFD	Water Framework Directive

1 INTRODUCTION

1.1 Background

1.1.1 Planning permission was granted on 30th March 2020 for the repair and restoration of the Newport Transporter Bridge and ancillary elements, along with the demolition of the old visitor centre to be replaced with new, expanded visitor facilities (planning application ref 19/1164). Further permission for replacement of the retaining river wall alongside the visitor centre (application re: 21/1217) was granted on 6th July 2022. In both instances, as part of the planning process Newport City Council's planning authority carried out a Habitat Regulations Assessment (HRA) to identify if the proposed works would impact any European designated sites, (considered under the Habitats Regulations to consist of Special Protection Areas, Special Areas of Conservation and Ramsar sites) within the Zone of Influence. These were:

- a) Severn Estuary/Môr Hafren SAC
- b) Severn Estuary Ramsar
- c) Severn Estuary SPA
- d) River Usk SAC

1.1.2 The Appropriate Assessment for application 19/1164 confirmed that, with the imposition of several planning conditions, that works would not have a significant impact on the River Usk SAC.

1.1.3 The HRA for application 21/1217 screened out the possibility of impacts on the Severn Estuary SAC/SPA/Ramsar sites and at Stage 2, Appropriate Assessment, it was confirmed that with the appropriate inclusion and implementation of several planning conditions that there would be no significant effect on the River Usk SAC. The relevant conditions were:

- Condition 2: The submission and approval of a Construction and Environmental Management Plans (CEMP) to include biodiversity management (species and habitat protection, avoidance, and mitigation measures) and a Pollution Prevention Plan.
- Condition 3: The submission and approval of a Piling Method Statement

1.1.4 Works to replace the wall have been timed to occur in two parts with the southern half to be completed first, followed by the northern half. Currently the southern portion of works has been completed. However, following a meeting about Water Framework Directive compliant mitigation on 18th October 2023 and the need for a Marine Licence, it was agreed that an update to the HRA produced for application 21/1217 would be required in relation to remaining works, to incorporate a coastal squeeze assessment. TACP were commissioned by Arup in November 2023 to produce a Statement to Inform an Appropriate Assessment (SIAA), which could be used to form the basis for the required HRA update. A coastal squeeze assessment was also agreed to, to feed into the SIAA as required.

1.2 Legislation, Policy, and Guidance

Relevant Legislation

- 1.2.1 The need for a Habitat Regulations Assessment is driven by the requirements of the Habitat Regulations.
- 1.2.2 The Habitat Regulations originally transposed the land and marine aspects of the Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Wild Birds Directive (Directive 2009/147/EC) (known as the Nature Directives) into UK law. The Regulations were amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 to allow them to remain operable from 1st January 2021 (after the UK left the EU).
- 1.2.3 Under the Habitat Regulations it is a requirement to create and maintain a national site network within the UK territory comprising those protected sites already designated under the Nature Directives (Special Areas of Conservation – SACs – and Special Protection Areas – SPAs), and any further sites designated under the Habitat Regulations. SACs and SPAs are high-quality conservation sites that make a significant contribution to conserving the habitats and species identified in Annexes I and II of the Habitats Directive. The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds).
- 1.2.4 In addition to SACs and SPAs, Ramsar sites (both listed and proposed) are considered equivalent under the Habitats Regulations. Ramsar sites are wetlands of international importance that have been designated under the criteria of the Ramsar Convention on Wetlands. Within the UK, the boundaries of Ramsar sites typically overlap those of SACs and/or SPAs.
- 1.2.5 Where a Plan or Project has the potential to have an impact on an SAC, SPA or Ramsar site, there is a requirement to carry out a HRA to identify the risk of a significant effect on the site. Such a proposal is required to be assessed both alone and in combination with other plans and projects (Potential SPAs and possible SACs should be treated as equal to fully designated SPAs and SACs under the Habitat Regulations). A HRA can only be carried out by a "Competent Authority" which is an organisation or individual responsible for granting consent for a Plan or Project (e.g. Statutory Nature Conservation Organisations, local planning authorities, the Welsh Government, and the Secretary for State.)
- 1.2.6 Under the Habitat Regulations, specific Conservation Objectives are applied to SACs and SPAs (refer to 1.6.12). No such objectives apply to Ramsar sites. The Ramsar Convention predominantly covered wetland conservation and 'wise use,' with three main 'pillars' of activity:
 - a) The designation of wetlands of international importance as Ramsar Sites;
 - b) The promotion of the wise use of all wetlands in the territory of each country; and
 - c) International co-operation with other countries to further the wise use of wetlands and their resources.
- 1.2.7 The Environment Act 2021 legislated for the potential to amend Part 6 (Assessment of Plans and Projects) of the Habitats Regulations. The Secretary of State may make

regulations to amend the Habitat Regulations only if satisfied that the regulations do not reduce the level of environmental protection provided by them.

Stages of a Habitat Regulations Assessment

1.2.8 Under the Conservation of Habitats Regulations, Regulation 63 states:

- a) *A competent authority, before deciding to undertake, or give any consent, permission, or other authorisation for, a plan or project which—*
- *is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and*
 - *is not directly connected with or necessary to the management of that site,*
 - *must make an appropriate assessment of the implications of the plan or project for that site in view of that site's Conservation Objectives.*

1.2.9 The HRA process can be broadly broken down into four stages with the requirement for any one stage determined by the findings of the previous stage. The four stages can be summarised as follows:

- a) **Stage 1 – Screening:** This stage has two parts. The first identifies whether the plan or project is necessary for the management of any SACs, SPAs and Ramsar sites. Where this is confirmed as not the case, the second part then tests for a likely significant effect on the relevant sites by the proposed plan or project (either alone or in combination with other projects or plans). Where a likely significant effect is identified further assessment is then required during Stage 2 Appropriate Assessment.
- b) **Stage 2 – Appropriate Assessment:** Where a likely significant effect has been identified during Stage 1, a detailed assessment of impact likelihood and severity on the sites is undertaken. This incorporates a detailed review of the proposal in relation to the structure and function of the European Sites along with their Conservation Objectives to identify whether the integrity of the site(s) will be impacted. Consideration of mitigation is included during this Stage.
- c) **Stage 3 – Assessment of alternative solutions:** Where Stage 2 cannot show that significant effects on the integrity of the protected site(s) can be avoided, Stage 3 identifies and examines alternative ways of achieving the objectives of the plan or project that avoids these adverse effects.
- d) **Stage 4 – Assessment where no alternative solutions exist and where adverse effects remain:** Where significant adverse effects remain after Stage 3, Stage 4 seeks to present the case for Imperative Reasons of Overriding Public Interest (IROPI). Where IROPI applies, Stage 4 also seeks to identify and present appropriate compensatory measures needed to maintain the overall coherence of the protected site(s) across the region.

1.2.10 In regard to Stage 1, under the Habitats Regulations a significant effect is considered likely, if:

- a) It cannot be excluded, in that it is capable of having an effect, on the basis of objective information; and
- b) It is likely to undermine the site's Conservation Objectives

- 1.2.11 During the HRA process the precautionary principle applies. That is, where the likelihood of significant effects is deemed uncertain, the Conservation Objectives of the site(s) take precedence and an impact on the site must be assumed. In addition, for an assessment to be deemed appropriate it must be specific to the qualifying features of the site(s), as opposed to broad references to habitat features or similar.

Policy

- 1.2.12 Wales Planning Policy Edition 11 (2021) has been considered.

Guidance and Supplementary Advice

- 1.2.13 The following documents have been referenced for this report:
- a) Government guidance for England and Wales: "Habitats regulations assessments: protecting a European site"
(<https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>)
 - b) NRW Guidance Note GN 062 "Assessment of Coastal Squeeze"
 - c) Environment Agency research report FRS17187 "What is Coastal Squeeze?"
 - d) Newport Council's Supplementary Planning Guidance "Wildlife and Development - August 2015"

1.3 Site description

- 1.3.1 The site of the new Visitor Centre and associated river wall is located at approximate National Grid Reference (NGR) ST 31683 86278. This is on the western bank of the River Usk, immediately adjacent to the north side of the Newport Transporter Bridge which crosses the lower reaches of the river towards the southern end of the city of Newport. It is also approximately 3km north of where the mouth of the River Usk empties into the Severn Estuary.
- 1.3.2 The new river wall is being constructed along the riverbank immediately adjacent to the east side of the visitor centre and associated facilities.

1.4 Proposed works

- 1.4.1 This report relates specifically to the construction of the remaining part of retaining river wall along the bank adjacent to the new Visitor Centre. The proposed work will involve the replacement of an existing timber retaining wall with a sheet piling wall. This will require the sheet piling being driven into the riverbank using a vibratory piling hammer.
- 1.4.2 The new piling wall will be installed approximately 2feet/60cm in front of the current wall, which is to be retained. This is to avoid extensive excavation works and the associated pollution impact risks. The gap between the new wall and old wall will be back filled with pea gravel (a free draining granular fill).

1.5 Purpose of this Report

- 1.5.1 The purpose of this report is to present the findings of a shadow Habitat Regulations Assessment (sHRA), incorporating a Coastal Squeeze Assessment following the Natural Resources Wales Guidance Note GN 062 "Assessment of Coastal Squeeze". The Coastal Squeeze assessment forms part of Stage 1 of the HRA process, with the results

carried through to Stage 2 (Appropriate Assessment) as required.

- 1.5.2 The definition of Coastal Squeeze was clarified by Project FRS17187 "What is Coastal Squeeze" which stated that it was:
- 1.5.3 *"The loss of natural habitats or deterioration of their quality arising from anthropogenic structures or actions, preventing the landward transgression of those habitats that would otherwise naturally occur in response to sea level rise in conjunction with other coastal processes. Coastal squeeze affects habitat on the seaward side of existing structures."*
- 1.5.4 As per the Habitat Regulations, the competent authority can only agree to the Proposed Scheme after it has been confirmed that it will not affect the integrity of any European site or sites (Regulation 63(5)). Regulation 63(3) also requires that the Competent Authority consult with the Statutory Nature Conservation Body (Natural Resources Wales) and have due regard to any responses from that body. This sHRA report can be used by the relevant Competent Authority under the Habitat Regulations, to inform their own Habitats Regulations Assessment process.
- 1.5.5 Information from the previously completed Habitats Regulations Assessment for Application 21/1217 has been incorporated into this report. Reference to the CEMP and the Piling Method Statement, submitted as part of the conditions of the permission has also been made.

1.6 Experience of the Author of this Report

- 1.6.1 This report has been produced by Victoria Nicholls BSc (Hons), MSc, MRSB, Senior Ecologist for TACP and a professional ecologist with more than 17 years' experience in both the private and public sectors, including Habitat Regulations Assessments for a variety of projects.

2 SHRA STAGE 1: SCREENING FOR LIKELY SIGNIFICANT EFFECTS (LSE)

2.1 Introduction

- 2.1.1 With reference to the earlier assessment for Ref 21/1217 (see Section 1.1) and the EclA completed for the works, the following designated sites have been identified as being within the Zone of Influence of the development:
- a) Severn Estuary/Môr Hafren SAC
 - b) Severn Estuary Ramsar
 - c) Severn Estuary SPA
 - d) River Usk SAC
- 2.1.2 A summary of each site, detailing their conservation objectives (where available) and the qualifying features, is presented in Table 3.
- 2.1.3 Stage 1 of the HRA process can be broken down into two parts with Stage 1(a) answering the question: Is the proposal connected with, or necessary for the conservation management of a European Site. In this instance, it is clear that the proposed works to replace the retaining wall are not directly connected with, or necessary for the management of, any of the sites listed. As such, the HRA process moves on to Stage 1(b) – the test for likely significant effect.
- 2.1.4 It should be noted that mitigation cannot be considered at Stage 1, as clarified by a ruling by the European Court of Justice in 2018 (People Over Wind and Peter Sweetman vs Coillte Teoranta), therefore any LSE identified is in the absence of mitigation. Mitigation is considered at Stage 2.

Table 1: Summary of the Relevant Designated Sites within the Zone of Influence

Site	Qualifying Features	Conservation Objectives	Relationship to Scheme
Severn Estuary/Hafren Môr SAC	Annex I habitats that are a primary reason for selection of this site - Estuaries - Mudflats and sandflats not covered by seawater at low tide - Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site - Sandbanks which are slightly covered by sea water all the time - Reefs Annex II species that are a primary reason for selection of this site - Sea lamprey <i>Petromyzon marinus</i> - River lamprey <i>Lampetra fluviatilis</i> - Twaite shad <i>Alosa fallax</i>	"With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features'), and subject to natural change; Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; - The extent and distribution of qualifying natural habitats and habitats of qualifying species - The structure and function (including typical species) of qualifying natural habitats - The structure and function of the habitats of qualifying species - The supporting processes on which qualifying natural habitats and the habitats of qualifying	- c.3km downstream - The boundary of the Severn Estuary SAC lies at the confluence of the River Ebbw and the River Usk. - Direct hydrological connection (within Zone of Influence) and functional linkage via migratory fish species which move between the Severn Estuary and the River Usk. - SAC boundary includes shoreline and open water.

Site	Qualifying Features	Conservation Objectives	Relationship to Scheme
	Annex II species present as a qualifying feature, but not a primary reason for selection of this site Not applicable	species rely The populations of qualifying species, and, The distribution of qualifying species within the site."	
Severn Estuary SPA	Regularly supporting an internationally important wintering population of Bewick's swan <i>Cygnus columbianus bewickii</i>, an Annex 1 species. Regularly supporting over 20,000 wintering waterfowl Regularly supporting internationally important populations of 5 species of migratory waterfowl: - European white-fronted goose - Shelduck - Gadwall - Dunlin - Redshank Supports nationally important wintering populations of: - Wigeon - Teal - Pintail - Pochard	2.1.5 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features'), and subject to natural change; Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; - The extent and distribution of the habitats of the qualifying features - The structure and function of the habitats of the qualifying features - The supporting processes on which the habitats of the qualifying features	- c.3km downstream - The boundary of the Severn Estuary SAC lies at the confluence of the River Ebbw and the River Usk. - Direct hydrological connection (within Zone of Influence) and functional linkage via migratory fish species which move between the Severn Estuary and the River Usk. - SPA boundary around shoreline habitat only.

Site	Qualifying Features	Conservation Objectives	Relationship to Scheme
	- Tufted duck - Ringed plover - Grey plover - Curlew - Whimbrel - Spotted redshank Supports nationally important migratory populations of: - Ringed plover - Dunlin - Whimbrel - Redshank Supports nationally important breeding population of lesser black backed gulls.	rely - The population of each of the qualifying features, and, - The distribution of the qualifying features within the site.	
Severn Estuary Ramsar	Qualifies under Criterion 1 of the Ramsar Convention: - The large tidal range affecting the physical environment and biological communities. Qualifies under Criterion 2b of the Ramsar Convention - Estuarine communities Qualifies under Criterion 2c of the Ramsar Convention - Its important numbers of migratory fish including salmon, sea trout, sea	2.1.6 Not applicable to Ramsar sites. The Ramsar Convention predominantly covered wetland conservation and 'wise use.' However, where qualifying species and habitats overlap with those of the SAC and SPA, the relevant SAC.SPA conservation objectives are assumed applicable.	- c.3km downstream - The boundary of the Severn Estuary SAC lies at the confluence of the River Ebbw and the River Usk. - Direct hydrological connection (within Zone of Influence) and functional linkage via migratory fish species which move between the Severn Estuary and the River Usk. - Ramsar boundary/area overlaps with that of the

Site	Qualifying Features	Conservation Objectives	Relationship to Scheme
	lamprey, river lamprey, allis shad, twaite shad and eel. - Its important numbers of migratory bird populations including ringed plover, dunlin, whimbrel, and redshank Qualifies under Criterion 3a of the Ramsar Convention - Regularly supporting over 20,000 over wintering waterfowl. Qualifies under Criterion 3c of the Ramsar Convention: - Regularly supporting international important wintering populations of European white fronted geese, shelduck, gadwall, dunlin, and redshank		SPA.
River Usk/Afon Wysg SAC	Annex I habitats that are a primary reason for selection of this site Not applicable Annex I habitats present as a qualifying feature, but not a primary reason for selection of	"With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features'), and subject to natural change; Ensure that the integrity of the site is maintained or restored as	- Immediately adjacent (<100m). The Newport Transporter Bridge crosses the SAC while the Visitor Centre sits on the western riverbank alongside the bridge. - Direct connection (within

Site	Qualifying Features	Conservation Objectives	Relationship to Scheme
	this site - Water courses of plain to montne levels with the Ranunculon fluitantis and Callitricho-Batrachion vegetation Annex II species that are a primary reason for selection of this site - Sea lamprey <i>Petromyzon marinus</i> - Brook Lamprey <i>Lampetra planeri</i> - River lamprey <i>Lampetra fluviatilis</i> - Twaite shad <i>Alosa fallax</i> - Atlantic salmon <i>Salmo salar</i> - Bulhead <i>Cottus gobio</i> - Otter <i>Lutra lutra</i> Annex II species present as a qualifying feature, but not a primary reason for selection of this site: - Allis shad <i>Alosa alosa</i>	appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; - The extent and distribution of qualifying natural habitats and habitats of qualifying species - The structure and function (including typical species) of qualifying natural habitats - The structure and function of the habitats of qualifying species - The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely - The populations of qualifying species, and, The distribution of qualifying species within the site."	Zone of Influence)

2.2 Test of Likely Significant Effect

- 2.2.1 The previous HRA for 21/1217 scoped out likely significant effects on the Severn Estuary SAC/SPA/Ramsar at the Stage 1 (Screening). However, as referenced in paragraph 1.14, during a stakeholder meeting on 18th October 2023, NRW raised the issue of potential impacts associated with sediment plumes caused by piling works during the construction of the river wall. The issue of potential coast squeeze was also raised. This section therefore tests for likely significant effects (LSEs) of the Scheme taking into account the concerns raised on 19th October.
- 2.2.2 During the HRA process, an assessment for coastal squeeze is considered under the test for a likely significant effect, to be carried through to Stage 2 if required. For clarity within this report, coastal squeeze has been considered separately from other potential impacts. As stipulated in paragraph 1.5.1, the coastal squeeze assessment has followed the relevant NRW guidelines.

Coastal Squeeze

- 2.2.3 The development site falls within the area covered by the Severn Estuary Shoreline Management Plan, the current iteration of which (SMP2) was adopted in 2017. Within the SMP2 the area is divided into several 'Theme Areas' which in turn are split into multiple policy units. Those that fall within Wales are presented in Table 2. A Policy Statement has been produced for each Theme Area with the preferred policies for different units identified for 3 periods of time (epochs); 0-20years, 20-50years and 50-100years. The four key policies within the SMP2 that are applied to each Policy Unit (and which can vary by epoch) are:
- Hold The Line (HTL): The current shoreline position is maintained by maintaining or changing the existing standard of protection.
 - Advance The Line(ATL): Not applied in Wales. The current shoreline position is to be extended seaward by the construction of new defences.
 - Managed Realignment (MR): The current shoreline position will be allowed to move forward or backwards in response to coastal processes, but management will be put in place to limit/control this.
 - No Active Intervention (NAI) – Natural processes will be allowed to continue with no investment in coastal defences.

Table 2: SMP Theme Areas with associated Policy Units that fall within Welsh jurisdiction

Theme Area	Area Covered	Policy Units
Penarth	Lavernock Point to Penarth Head	PEN1, PEN2
Cardiff	Penarth Head to Lamby Way Landfill Site drain/outfall	CAR1, CAR2, CAR3
Wentlooge	Lamby Way Landfill Site drain/outfall to River Ebbw (west bank) at the Maesglas railway bridge	WEN1, WEN2
Newport and Usk	River Ebbw (west bank) at the Maesglas railway bridge to River Usk at Spyttty Pill, north of the A48 crossing	NEW1, NEW2, NEW3, NEW4, NEW5

Theme Area	Area Covered	Policy Units
Caldicot	Uskmouth Power Station point to River Wye (west bank) at Park Redding, Thornwell	CALD1, CALD2, CALD3
Wye and Chepstow	M48 River Wye crossing, Thornhill to the end of Beachey Road at Beachey Point (including to immediately upstream of Tintern Abbey)	WYE1, WYE2, WYE3, WYE4

2.2.4 Referencing the Policy Statement for Newport and Usk, it shows that the west bank of the Usk at the Newport Transporter Bridge acts as the boundary between Policy Unit NEW1 (south) and Policy Unit NEW2 (north). As the proposed works to replace the sea wall are north of the bridge, they fall within Policy Unit NEW2. The preferred management policy of Policy Unit NEW2 across all epochs is "Hold the Line" with no impacts on the River Usk SAC identified and coastal squeeze in relation to the Severn Estuary SAC not a required consideration. However, due to the proximity of the Policy Unit boundary it is prudent to refer to the management policies applicable to NEW1.

2.2.5 As for NEW2, the preferred management policy across all epochs for Policy NEW1 is "Hold the Line". No impacts on the River Usk SAC are identified in the Policy Statement as a result of this policy. However, it is identified that although HTL will not result in coastal squeeze in relation to the Severn Estuary SAC in the short term (0-20years), there may be an impact in the medium (20-50years) and long (50-100years) terms. As such, it is considered appropriate to screen the development for it's potential to cause coastal squeeze.

2.2.6 As per current NRW guidelines, screening for coastal squeeze within the context of Stage 1 of a Habitats Regulations Assessment (test for likely significant effect) has two steps. Step 1 (as shown in Figure 1) answers the question "Is there potential for coastal squeeze to occur?" and utilises four screening questions. Where the four screening questions are answered in the affirmative the screening process moves on to Step 2. Table 3 presents the results of Step 1 of the coastal squeeze screening for the current proposals,

Table 3: Test for Likely Significant Effect - Coastal Squeeze Screening, Step 1

Screening Question	Answer
Is there a plan or project to undertake works to a structure or an activity occurring which implements hold the line and/or maintains the current shoreline position (this can include works to the landward side of a defence)?	Yes: The proposed works fall within a policy unit of the Severn Estuary Coastal Group (SECG) SMP2 (Shoreline Management Plan) and will involve replacing a current sea/flood defence wall along the west bank of the River Usk, on the north side of the Newport Transporter Bridge. The replacement wall will be installed immediately adjacent on the "seaward" side of the current wall to minimise the risks and impacts associated with removing the old wall.
Would the habitats be able to migrate landwards in response to sea level rise if	Uncertain – Precautionary Principle applies

Screening Question	Answer
there was no coastal structure or the management activity was stopped (i.e., the land behind the defence would be susceptible to flooding if the defence failed or would be expected to erode rapidly)?	(Yes): As per paragraph 2.2.4 works fall within Policy Unit NEW2 which does not require an assessment for coastal squeeze, therefore indicating that there isn't the scope for natural processes to cause the landward migration of coastal habitats. (Note: habitat changes in the absence of defences will likely be the result of riverine processes rather than coastal). However, due to the proximity of the boundary of Unit NEW1 consideration may be necessary for the medium and long term. (ref: SMP2 Policy Statement for Newport and Usk). The area landward of the replacement wall falls within a low flood risk area for the sea (ref: NRW's Flood and Coastal Erosion Risk Map) and does not fall within a Tan15 defended Zone (no specific defences against coastal process and associated flooding). However is considered appropriate to apply the precautionary principle and, for the purpose of assessment, assume yes.
Is there a National Site Network designated site with Annex 1 habitats present in the area seaward of the defence?	Yes: The site lies adjacent to the River Usk SAC and the Severn Estuary SAC lies c. 3km to the south.
If the proposed works are in a 'Hold the line' policy unit, does the SMP HRA identify coastal squeeze losses?	No: As stated, Policy Units NEW1 and NEW2 follow the 'hold the line' policy across all three policy epochs as per the SMP covering the area (Ref: SECG SMP2). However, Annex 1 of Guidance GN 062 provides a summary of those 'hold the line' Policy Units where the SMP HRA identified coastal squeeze as a potential impact. None of the Policy Units within the Newport and Usk Theme Area were referenced (see Table 3, p.28 of the guidance). That is, the HTL policies for Policy Unit NEW2 (development unit) and Policy Unit NEW1 (adjacent Unit) do not result in predicted habitat lost as a result of Coastal Squeeze.

- 2.2.7 As per Figure 1, the Screening Stage for coastal squeeze does not proceed to Step 2 unless all questions at Step 1 are answered "Yes". Step 1 has resulted in 3 questions answered "Yes" (one under the Precautionary Principle) and one question answered "No". As such, no further action is required in relation to Coastal Squeeze and the assessment is complete at this point.

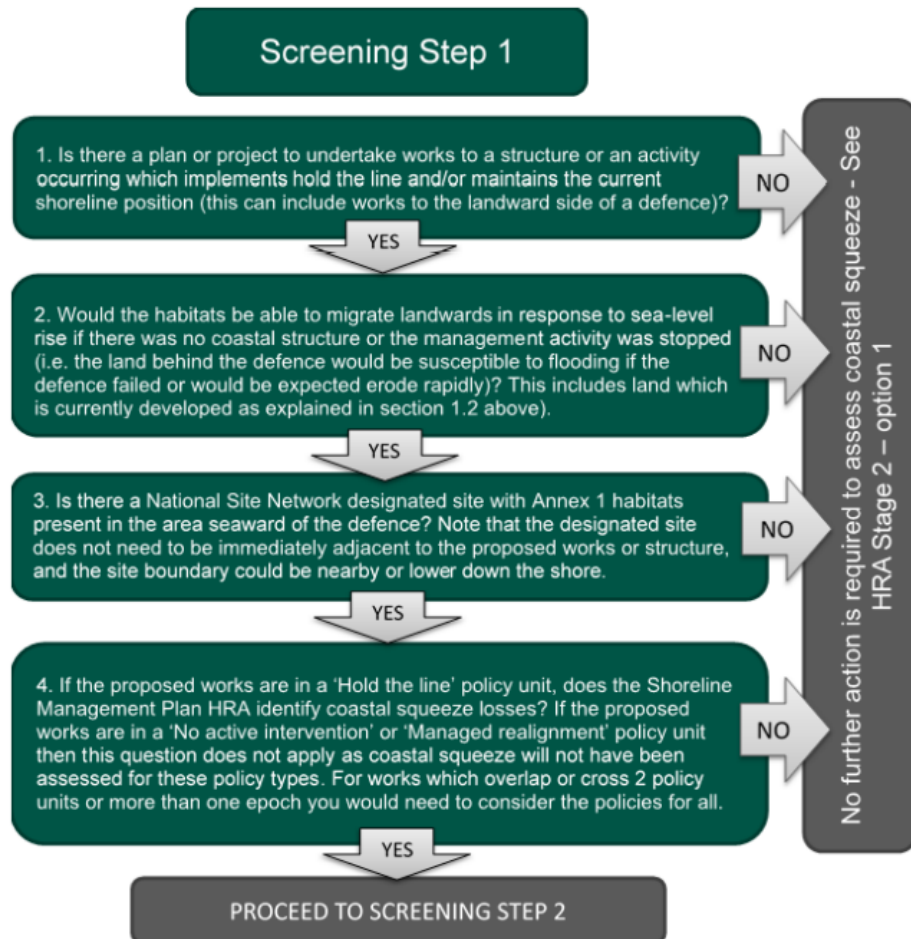


Figure 1: Coastal Squeeze Screening Stage 1 Flow Chart – From p.9 of Guidance GN 062 “Assessment of Coastal Squeeze”

- 2.2.8 In conclusion, the proposed works is not considered to have a likely significant effect on the relevant designated sites as a result of coastal squeeze and does not need to be considered at Stage 2 of the HRA process “Appropriate Assessment”.

Other Impacts

- 2.2.9 Table 4 summarises the potential impact pathways which have been identified and may cause a Likely Significant Effect (besides coastal squeeze). Reference has been made to the earlier HRA assessment completed for application Ref 21/1217, the Preliminary Ecological Appraisal and the Ecological Impact Assessment that was submitted as part of the application documents, and recent comments made by NRW during the meeting on October 18th 2023.

Table 4: Test of Likely Significant Effect - Other Impact Pathways

Site	Qualifying feature or key relationships impacted	Potential Impact Pathway	Potential for a Likely Significant Effect?
Severn Estuary SAC	Qualifying migratory fish species: - Sea lamprey - River lamprey - Twait shad	During construction: - Disturbance of silt causing run off/silt plumes - may have both direct and indirect impacts. - Pollution run off e.g. chemical or oil spills from construction machinery. - Noise and vibration from piling works causing disturbance and/or other direct/indirect impacts. - The use of night lighting has the potential to disturb fish species.	Yes 2.2.10 Where Severn estuary SAC qualifying fish species occur in tributary rivers, impacts on those fish within the tributaries may still undermine the conservation objectives of the SAC due to the functional connectivity across the sites. As such, a likely significant effect cannot be discounted.
	Qualifying habitat - Mudflats and sandflats not covered by seawater at low tide - Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) - Sandbanks which are slightly covered by sea water all the time - Reefs	During Construction - Disturbance of silt or other materials containing toxic/industrial substances during piling works which could be introduced to habitats within the Estuary and negatively impact biological processes. - Deposition of silt materials altering/smothering qualifying habitats.	Yes - chemical/oil impacts may harm organisms involved in the underpinning biological processes that maintain the qualifying habitats. However, silt impacts are considered unlikely as the net additional silt output is negligible when considering natural outputs within the Severn Estuary and the tidal/geophysical processes.

Site	Qualifying feature or key relationships impacted	Potential Impact Pathway	Potential for a Likely Significant Effect?
		Pollution runoff e.g. chemical or oil spills from construction machinery.	
Severn Estuary SPA	None identified	n/a	No. The Severn Estuary SPA can be scoped out of further assessment.
Severn Estuary Ramsar	Migratory fish species: - Salmon - Sea trout - sea lamprey, - river lamprey, - allis shad, - twait shad, - eel	- Disturbance of silt during construction (including piling works) causing run off/silt plumes - may have both direct and indirect impacts. - Noise and vibration from piling works causing disturbance. - Pollution run off e.g. chemical or oil spills from construction machinery. - The use of night lighting has the potential to disturb fish species.	Yes Where Severn estuary Ramsar fish species occur in tributary rivers, impacts on those fish within the tributaries may then result in indirect impacts on the Ramsar site
River Usk SAC	Qualifying fish species: - Sea lamprey - Brook lamprey - River lamprey - Twaite shad	- Disturbance of silt during construction (including piling works) causing run off/silt plumes - may have both direct and indirect impacts. - Noise and vibration from	Yes

Site	Qualifying feature or key relationships impacted	Potential Impact Pathway	Potential for a Likely Significant Effect?
	- Atlantic salmon - Bullhead - Allis shad	- piling works or other construction works causing disturbance. - The use of night lighting has the potential to disturb fish species.	
	European otter	- Pollution run off (e.g. chemical or oil spills from construction machinery) - Noise and vibration from piling works or other construction works. - The use of night lighting has the potential to disturb otters.	Yes

3 SHRA STAGE 2: STATEMENT TO INFORM AN APPROPRIATE ASSESSMENT

3.1 Severn Estuary SAC

Assessment of Effects

3.1.1 The primary construction impacts identified were:

- a) Disturbance of silt due to piling works causing run off/silt plumes
- b) Pollution run off e.g. chemical or oil spills from construction machinery.
- c) Noise and vibration from piling works causing disturbance and/or other direct/indirect impacts.
- d) The use of night lighting during works causing disturbance.

3.1.2 **Qualifying Fish Species:** As referenced in Table 1 the SAC qualifying fish species are twait shad, river lamprey and sea lamprey. These species are migratory in nature moving between the saltwater/brackish environments of the Severn Estuary and freshwater riverine environments that act as tributaries to the Severn, for breeding (such as the River Usk).

3.1.3 The construction impacts identified are considered to likely have the following negative consequences:

a) Sheet Piling Works

- Silt plumes:
 - i. Direct accumulation of silt in the gills of fish causing smothering,
 - ii. increased nutrification of the water leading to a higher biochemical oxygen demand and lower dissolved oxygen levels (resulting in suffocation),
 - iii. modifications of the adjacent aquatic habitat caused by excess silt deposition leading to a loss of shelter and increasing risk of predation.
 - iv. Increased turbidity as a result of suspended sediment, reducing light penetration which may affect fish behaviour and movement including disruption of feeding patterns,
 - v. Increased physiological stress which may affect egg quality or other physiological aspects of reproduction, therefore reducing breeding success, or having other physiological impacts (including a general increase in morbidity and mortality)
- High levels of Noise and Vibration:

- i. Disruption to fish behaviours including modification of feeding patterns or complete prevention of movement upstream.
 - ii. Increased physiological stress (as previously referenced) .
- Lighting:
 - i. Where night working occurs, flood lighting can have a significant impact on the behaviour of migratory fish, preventing movement.
- b) **Accidental chemical/fuel/oil spills:**
 - Direct poisoning,
 - Suffocation e.g. as a result of physiological changes in response to changes in aquatic pH (such as increased gill mucus production).
- 3.1.4 The current condition status of all three species is unfavourable, therefore taking all potential impacts on the relevant fish species within proximity of the proposed works into account, a significant effect is assumed and the conservation objectives of the SAC will be undermined.
- 3.1.5 **Qualifying Habitats:** Spillages of fuels, oils, chemicals, and materials may have the potential to impact smaller organisms that have a role to play in maintaining the structure and function of the SAC habitats. The distance of the proposed works from the Severn Estuary, and the diluting effect of the Severn itself, will considerably reduce the potential for significant impacts. However, as it is not possible to quantify the impacts (with or without a dilution effect), and when considering in-combination effects resulting from other sources of such pollutants along the estuary and other tributary rivers (e.g. road run-pff), in the absence of mitigation a significant effect is presumed.

Mitigation Measures

- 3.1.6 Mitigation measures have been detailed in the updated CEMP for the works, which incorporates a Pollution Prevention Plan (prepared in accordance with relevant CIRIA guidance documents), and the Piling Method Statement which have been submitted to the planning authority to discharge conditions 2 and 3 of planning application 21/1217.
- 3.1.7 All mitigation measures for avoidance of pollution impacts follow best practice with guidance taken from current Guidance for Pollution Prevention (GPPs), and all proposed measures within will be fully implemented during construction works.

Construction Programme - Works timing:

- 3.1.8 The CEMP details the following timing constraints in relation to works:
 - a) Works to be completed in July/August 2024, outside of embargo period for migratory fish.
 - b) Work hours proposed to be 8am-6pm i.e. no night working.
 - c) Works will not be carried out during high tide events to reduce risks associated with disturbed silt entering the water from mudbanks.

- 3.1.9 The proposed works are aimed to be completed in under 6 weeks (between 2-6 weeks), minimising the time period where impacts can occur.

Silt plumes

- 3.1.10 The risk of silt plumes and associated impacts will be minimised through:
- a) Timing works to avoid high tide events and the most sensitive period for migratory fish. (paragraph 3.1.8).
 - b) Using low vibration methods of sheet piling installation (paragraph 3.1.11-3.1.13)

Noise and Vibration

- 3.1.11 To avoid impacts on qualifying fish species as a result of noise and vibration, an embargo on vibration inducing riverbank works will be in place in the early part of the year until June. This accounts for the potential presence of SAC fish species which may migrate through the area.
- 3.1.12 Low vibration methods of sheet piling installation will be used. Vibration monitoring carried out for the first section of the wall evidenced that vibrations did not breach any of the pre-defined limits.
- 3.1.13 Timing of works to low tide to minimise sound/vibration impacts (noise/vibration being magnified in aquatic environments due to the relative density of water compared to air.).

Lighting

- 3.1.14 Lighting will be limited to around the welfare area and new building, where required, to permit safe working and these will be switched off at end of day. No night working will be carried out therefore there are no requirements for construction flood lights. Impacts related to lighting will therefore be avoided.

Accidental chemical/oil/fuel spills and run-off

- 3.1.15 Pollution prevention measures relevant to the avoidance of accidental spills and associated pollution risks consist of:
- a) The provision of spill kits.
 - b) Restricting traffic – no parking on site.
 - c) Construction of appropriate fuel storage areas, as per regulations, to be regularly inspected and maintained. (Double bunded and secured, with drip trays utilised for refuelling)
 - d) A surface water management system.
 - e) Dust suppression measures.
 - f) Suspension of work where weather forecast indicates increased risk.
 - g) Daily inspections of plant and equipment for leaks, to be immediately rectified if found (or plant/equipment taken out of use until repaired)
 - h) The installation of haybales on the river line at the lowest point to capture any debris resulting from generally rainwater runoff.

Environmental Clerk of Works

- 3.1.16 An Environmental Clerk of Works will be employed during construction works to ensure all ecological and environmental mitigation measures, as laid out within the CEMP, are followed, and to ensure the construction programme in relation to the embargo is adhered to.

Residual Effects

- 3.1.17 There will likely be some residual effects as a result of silt movement as, although the mitigation will minimise risks overall, the vibrations of the piling installation will inevitably result in the movement of some silt. However, this is not considered significant when viewed within the wider context of the Severn Estuary, the natural silt output of the associated tributary rivers and the normal tidal and the hydrological and hydrogeological processes of the wider estuarine environment. For example, the River Severn has an annual sediment output of approximately 262,883 tonnes a year, while the River Wye has an output of c. 347,227 tonnes, the Avon 53,060 tonnes and the Usk 41,733 tonnes (source: The Sediment Regime of the Severn Estuary Literature Review, 2016)
- 3.1.18 Once the mitigation measures outlined above are taken into account, even with consideration of the residual effects, it is concluded that the potential negative impacts of the proposed works will be avoided and thus will result in no significant effect on the qualifying species, qualifying habitats or supporting processes underpinning the Severn Estuary SAC. Therefore, the integrity of the site will be maintained. This is summarised in Table 3.

Table 5: Summary of effects of mitigation in relation to the Severn Estuary SAC's Conservation Objectives.

Conservation Objective	
With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features'), and subject to natural change, ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:	
1. The extent and distribution of qualifying natural habitats and habitats of qualifying species	The proposed scheme is not within the SAC and will not impact the extent and distribution of the SAC qualifying natural habitats
	The proposed mitigation for the scheme will maintain the extent and distribution of off-site habitats utilised by the SAC qualifying species by preventing or minimising the release of pollutants such as silts which may modify local aquatic habitats or alternative impacts. The extent the mitigation is appropriate to avoid the identified impacts.
2. The structure and function (including typical species) of qualifying natural habitats	The proposed development, incorporating mitigation, will not impact the structure and function of the SAC qualifying natural habitats.
3. The structure and function of the habitats of qualifying species	The proposed mitigation for the proposed works will maintain the structure and function of off-site habitats utilised by the qualifying species.

4. The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely	The proposed mitigation for the proposed works will allow the natural processes of the habitats outside of the SAC, upon which the qualifying species rely, to continue.
5. The populations of qualifying species	The mitigation for the proposed works will prevent direct harm to individual fish that may form part of the breeding population of those occurring within the Severn Estuary SAC (and Ramsar.)
6. The distribution of qualifying species within the site	The proposed mitigation allows continued movement of the qualifying species between the River Usk and the Severn Estuary where it occurs, thus maintaining the distribution of the qualifying species.

3.2 Severn Estuary Ramsar

Assessment of Effects

- 3.2.1 **Qualifying fish species:** In terms of the Ramsar designation, important fish assemblages are mentioned (Table 1), including the referenced SAC species (river lamprey *Lampetra fluviatilis*, sea lamprey *Petromyzon marinus*, twait shad *Alosa fallax*), allis shad (*Alosa alosa*), salmonid species such as Atlantic salmon (*Salmo salar*) and sea trout (*Salmo trutta trutta*), and the European eel (*Anguilla Anguilla*). All referenced species are migratory in nature moving between the saltwater/brackish environments of the Severn Estuary and freshwater riverine environments that act as tributaries to the Severn.
- 3.2.2 Details covered under the “Assessment of Effects” for the Severn Estuary SAC are also applicable here. Paragraph 3.13 lists the impacts on fish associated with the proposed works.
- 3.2.3 **Qualifying habitats:** Indirect impacts on Estuary habitats by silt which undermine Ramsar Criterion 3 (Estuarine communities) are theoretically possible however, as is the case with the SAC, for the most part the distance of the Scheme from the Severn Estuary, and relative silt output compared to the overall silt output of the River Severn and associated tributaries the diluting effect of the Severn itself, will reduce the potential for significant impacts on the habitats. However, in terms of chemical/fuel spill impacts as it is not possible to quantify the potential impacts (with or without a dilution effect), therefore for the purpose of this assessment in the absence of mitigation a significant effect is presumed (following the precautionary principle).

Mitigation Measures

- 3.2.4 The mitigation measures presented in relation to the Scheme, which will result in an avoidance of impacts on the Severn Estuary SAC (paragraphs 3.1.6-3.1.16) are also applicable to the Severn Estuary Ramsar.

Residual Effects

- 3.2.5 Once the mitigation measures outlined above are taken into account, it is concluded that the potential negative impacts of the Scheme will be avoided and thus will result in no significant effect on the supporting processes underpinning the Severn Estuary Ramsar or associated species. Therefore, the integrity of the site will be maintained.

3.2.6 No residual effects are predicted.

3.3 River Usk SAC

Assessment of Effects

3.3.1 **Qualifying fish species:** The River USK SAC qualifying fish species are detailed in Table 1. The majority of the listed species are migratory in behaviour moving between the saltwater/brackish environments of the Severn Estuary and the freshwater environment of the upper reaches of the Usk for breeding, passing through the tidal lower reaches around the Newport Transporter Bridge (salmon, sea trout, river lamprey, sea lamprey, twait shad, allis shad). Two of the qualifying species are confined to freshwater only (brook lamprey, bullhead) therefore would not occur in the saline environments of the lower tidal reaches of the Usk and will not be impacted by works.

3.3.2 Details covered under the “Assessment of Effects” for the Severn Estuary SAC are also applicable to those migratory fish species of the River Usk SAC designation. Paragraph 3.13 lists the impacts on fish associated with the proposed works.

3.3.3 **Otter:** As referenced in Table 1, otters are a qualifying species of the River Usk SAC and occur regularly along the river’s length including passings through the area around the Newport Transporter Bridge and proposed piling works. Evidence of their presence in the form of footprints around the eastern bank were, recorded during surveys for the EclA. However, no presence of holts or other rest features were recorded during surveys.

3.3.4 The construction impacts identified are likely to have the following negative impacts:

a) Sheet piling works

- High levels of noise and vibration.
 - i. Can result in high levels of physiological stress and disruption of behaviour.
- Lighting.
 - i. As otters are typically nocturnal, where night working occurs, flood lighting can have a significant impact on their behaviour and cause significant disturbance.

b) Accidental chemical/fuel/oil spills

- Direct poisoning

Mitigation Measures

3.3.5 The mitigation measures presented in relation to the proposed works, which will result in an avoidance of impacts on the Severn Estuary SAC (paragraphs 3.1.6-3.1.16) are also applicable to the River Usk SAC, avoiding impacts on both fish and otters.

Residual Effects

3.3.6 No residual effects are predicted.

3.3.7 Once the mitigation measures outlined above are taken into account, it is concluded that the potential negative impacts of the Scheme will be avoided and thus will result

in no significant effect on the supporting processes underpinning the Severn Estuary Ramsar or associated species. Therefore, the integrity of the site will be maintained as summarised in Table 4.

Table 6: Summary of effects of mitigation in relation to the River Usk SAC's Conservation Objectives.

Conservation Objective	
With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features'), and subject to natural change, ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:	
1. The extent and distribution of qualifying natural habitats and habitats of qualifying species	The proposed scheme lies along the boundary of the SAC but is not within the SAC and will not impact the extent and distribution of the SAC qualifying natural habitats The proposed mitigation for the scheme will maintain the extent and distribution of off-site habitats utilised by the SAC qualifying species by preventing or minimising the release of pollutants such as silts which may modify local aquatic habitats or alternative impacts. The extent the mitigation is appropriate to avoid the identified impacts.
2. The structure and function (including typical species) of qualifying natural habitats	The proposed development, incorporating mitigation, will not impact the structure and function of the SAC qualifying natural habitats.
3. The structure and function of the habitats of qualifying species	The proposed mitigation for the Proposed Scheme will maintain the structure and function of off-site habitats utilised by the qualifying species (those within the Severn Estuary used by River Usk SAC qualifying fish species).
4. The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely	The proposed mitigation for the proposed works will allow the natural processes of the habitats outside of the SAC, upon which the qualifying species rely, to continue.
5. The populations of qualifying species	3.3.8 The mitigation for the proposed works will prevent direct harm to individual fish that may form part of the breeding population of those occurring within the River Usk SAC.
6. The distribution of qualifying species within the site	The proposed mitigation allows continued movement of the qualifying species between the River Usk and the Severn Estuary where it occurs, thus maintaining the distribution of the qualifying species.

4 PROPOSALS FOR MONITORING AND REPORTING

4.1 During Construction

- 4.1.1 A series of method statements and plans for the main works will be implemented by the contractor during the duration of the works to ensure the prevention of impacts.
- 4.1.2 Monitoring and reporting protocols in relation to noise, vibration and pollution impacts during construction are presented within the CEMP and Pollution Prevention and Control Plan. Monitoring of site operations and activities will be carried out by the relevant managers and supervisors. Further, an Environmental Clerk of Works (ECoW) will be appointed to carry out regular inspections and reporting and to ensure appropriate works methods and mitigation proposals are adhered to.
- 4.1.3 Nonconformity will be recorded as an environmental incident, near miss or inspection finding by the Contractors, with responsibility for recording and reporting and investigating environmental incidents resting with the management team supported/assisted by the ECoW. Investigations will concentrate on identification of root causes in order that appropriate action can be taken to avoid recurrence. Periodic reviews of incidents will be made and analysed to ensure that all necessary action has been taken.

5 CONSULTATIONS

- 5.1.1 Under Regulation 63(3) of the Habitats Regulations, the competent authority "...must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies" before consent or permission is granted for a plan or project that requires an appropriate assessment.
- 5.1.2 Newport City Council has previously consulted with Natural Resources Wales in relation to the proposed works under planning application 21/1217 (Replacement of Retaining Wall) and further consulted NRW for application 22/0872 (the partial discharge of Conditions 2 and 3 of application 21/1217)

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