Llywodraeth Cymru / Welsh Government

A494 RIVER DEE BRIDGE REPLACEMENT SCHEME

Environmental Statement and Statement to Inform Appropriate Assessment (SIAA)

Amendments to Environmental Statement Chapters 7, 16 and the SIAA (August 2026) Summary Note

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1. Introduction

1.1 Purpose of the note

1.1.1 This note summarises the amendments made to the Environmental Statement (ES), Statement to Inform an Appropriate Assessment (SIAA), and supporting flood risk documentation for the A494 River Dee Bridge Replacement Scheme following consultation with Natural Resources Wales (NRW).

1.2 Background

1.2.1 The ES and SIAA were published on 30 September 2025 in accordance with the relevant legislative requirements. The documents were made available online and at designated deposit locations, and responses invited until 11 November 2025.

1.2.2 NRW, as the statutory nature conservation and flood risk management body for Wales, reviewed the documents and provided technical comments.

1.2.3 In response to NRW's comments, updates have been made to the following documents submitted as part of the draft Orders:

a) Environmental Statement (ES)

b) ES Chapter 7 – Road Drainage and the Water Environment

c) ES Chapter 16 – Marine Environment

d) Flood Consequences Assessment (FCA)

e) River Dee Hydraulic Modelling Report Proposed Development Assessment

f) Statement to Inform an Appropriate Assessment (SIAA)

1.3 Summary of NRW Comments

1.3.1 NRW's review focused on several environmental topics, with WG agreeing that amendments would be made to flood risk assessment, water quality considerations, and the assessment of marine and migratory fish. None of the amendments resulted in material changes to the outcome of the ES published in September 2025.

Flood Risk and Hydraulic Modelling

1.3.2 NRW raised comments regarding the accuracy and reliability of the River Dee hydraulic model and the associated flood risk assessment. In particular, they highlighted the need to refine model inputs, improve representation of channel and floodplain conditions, and ensure that the assessment provides sufficient confidence in predicted flood risk impacts.

Water Quality and Pollution Risk

1.3.3 NRW also made comments regarding the treatment of water quality effects within the Habitats Regulations Assessment (HRA). Key points included:

a) The distinction between embedded mitigation and construction-method measures, with NRW advising that measures such as standard pollution prevention controls should not be relied upon at the screening stage of the Appropriate Assessment

b) The need for further justification and clarity regarding statements on the likelihood and magnitude of pollution events (e.g. oil or fuel spills from vehicles)

c) Ensuring that construction-phase and operational pollution risks are appropriately considered and evidenced within the assessment

Marine and Migratory Fish

1.3.4 NRW provided detailed comments on the treatment of marine and migratory fish within the ES and supporting assessments. These included:

1.3.5 Ensuring that all relevant qualifying features (such as river lamprey and European smelt) are clearly identified and consistently referenced across the documentation

a) Reflecting the most up-to-date conservation status of key species, including the 'At Risk' status of Atlantic salmon

b) Improving clarity in the assessment of effects on migratory fish, including:

   i) Clear presentation of assigned value and importance

   ii) Inclusion of relevant mitigation measures and timing restrictions

c) Confirming that the assessment appropriately considers the use of the River Dee by migratory species (including lamprey)

d) Incorporating recent survey data and stakeholder information where available

1.4 Response to NRW Comments

1.4.1 Amendments have been made to the ES, SIAA and supporting assessments to address NRW's comments in relation to flood risk, water quality and marine and migratory fish. These changes are reflected in updates to the hydraulic modelling and Flood Consequences Assessment, revisions to the Habitats Regulations Assessment, and targeted amendments to ES Chapters 7 and 16 and the SIAA.

Flood Risk and Hydraulic Modelling

1.4.2 The River Dee hydraulic model and the accompanying River Dee Hydraulic Modelling Report (Proposed Development Assessment) have been updated to address NRW's comments, including refinements to model parameters, improved representation of topography, and incorporation of updated baseline mapping.

1.4.3 The Flood Consequences Assessment has been revised to reflect the updated modelling outputs, with associated amendments made within ES Chapter 7. NRW has reviewed the updated model and confirmed that it is fit for purpose, subject to matters to be addressed at the detailed design stage.

Water Quality and Pollution Risk

1.4.4 Amendments have been made to the SIAA (including screening tables and supporting text) to clarify the treatment of water quality effects within the Habitats Regulations Assessment. In particular:

a) References to construction-method pollution prevention measures as 'embedded mitigation' have been removed from the screening stage

b) The assessment has been updated to ensure that construction-phase pollution risks are considered at the Appropriate Assessment stage, where required

c) Supporting text has been revised to provide clearer justification of screening conclusions, including clarification of the existing drainage pathway and associated operational management arrangements, as well as existing and proposed pollution control measures

Marine and Migratory Fish

1.4.5 Targeted amendments have been made to ES Chapter 16 and the SIAA to address NRW's comments. These include:

a) Updates to ensure relevant qualifying features (including river lamprey and European smelt) are clearly referenced

b) Amendments to reflect the current conservation status of Atlantic salmon

c) Inclusion and clarification of mitigation measures within assessment tables

d) Incorporation of available survey information to support the assessment of migratory species

1.4.6 References to potential remedial works to retained river piers have also been removed from the Scheme, as the scope of such works is not yet defined. Any future works would be taken forward separately and subject to appropriate assessment and consenting processes.

1.4.7 These amendments do not result in any material change to the overall conclusions of the ES.

1.5 Summary of Amendments

1.5.1 The following summarises the key amendments made in response to NRW's comments.

The River Dee Hydraulic Model

1.5.2 The model was originally issued to NRW in September 2025 as part of the draft Orders and Environmental Statement. NRW provided comments in December 2025, which highlighted some concerns with the model. Key updates required included revising components of the hydraulic model (conveyance curves and panel markers in several 1D cross-sections) to achieve smoother conveyance, updating the base mapping from 2017 to January 2026 OS MasterMap to reflect recent developments such as the Northern Gateway, and improving topographic representation by creating a new 2D z-shapefile using information from Flintshire County Council planning applications data. NRW has reviewed the model and their response (email dated 18 March 2026) confirms they consider the hydraulic model is fit for purpose, subject to three outstanding matters identified for further investigation and to be addressed during detailed design of the replacement bridge.

Flood Consequence Assessment (FCA)

1.5.3 The FCA has been updated to reflect the River Dee Hydraulic Model. The latest FCA (P02 dated March 2026) replaced the previous FCA, Volume 3 Appendix 7D of the ES. The key changes to the FCA are summarised as follows:

a) The FCA has been revised to reflect the outputs of the updated River Dee hydraulic model (March 2026).

b) As a result, the Detailed Assessment of Flooding Consequences (Sections 5.1.1 and 5.2.1) has been updated, along with the assessment against TAN15 acceptability criteria, including:

   i) Acceptable consequences for the type of use (Section 6.2); and

   ii) Impacts on flood risk elsewhere (Section 6.3.2).

c) The updated modelling indicates changes in flood risk (in terms of depth and/or flood extent) in areas around Chester Racecourse and Wepre Drain during the

extreme (0.1% AEP, i.e. 1 in 1,000 year) fluvial event including climate change allowances for 2100. However, confidence in these results is low. Given that these locations are relatively distant from the Scheme, further refinement and updating of the modelling is recommended at subsequent stages of design development.

d) Elsewhere, the updated modelling results in only very minor changes to the impact assessment, and the overall conclusions of the FCA remain broadly unchanged.

e) Reporting of impacts has been revisited and updated to fully align with ES terminology and methodology.

f) The latest FCA (P02 dated March 2026) does not account for the supplementary TAN15 guidance which was published by Welsh Government on 20 March, after the report was finalised.

1.5.4 The principal amendments to Chapter 7 of the ES are made to the following sections of the chapter:

a) paragraphs 7.9.49 to 7.9.60 (not all paragraphs amended);

b) Table 7-25 ‘Assessment of significance of effects during the operational phase – change in flood risk.’ and,

c) concluding paragraph 7.9.61.

1.5.5 The amendments are summarised in the table below.

ES Chapter 16 – Marine Environment

1.5.6 The principal amendments made to this chapter are the omission of references to potential remedial works being carried out to the existing river piers that will remain in-situ. As the scope of these works is not yet defined, their potential effects cannot be reliably assessed and are therefore omitted from the current Scheme. If remediation is proposed at a later date, it would proceed as a separate project under the appropriate consenting route and accompanied by the necessary environmental assessments.

1.5.7 Other minor amendments have been made and these are summarised in the table below.

Statement to Inform Appropriate Assessment (SIAA)

1.5.8 The SIAA is a separate document to the ES and relates to legislation under the Habitats Regulation Assessment (HRA). The principal amendments made to the SIAA are as a result of comments received from NRW relating to embedded mitigation measures and clarifications on the omission of potential remedial works to the existing river piers as described above for Chapter 16.

1.5.9 The amendments are summarised in the following table.

ES Chapter 7: Road Drainage and the Water Environment		
Paragraph	Amendment	Additional Information/Explanatory Note
7.9.51 paragraph amendment	Updated paragraph inserted as follows: *For the River Dee (fluvial) the operation of the Scheme may increase water levels in existing river channels. Upstream of the Scheme there will be localised water levels changes inside the channel and no changes to receptor flood risk. The FCA model results also indicate changes in flood risk in areas around Chester Racecourse and the Wepre Drain. However, and as accepted by NRW, there is low confidence in the results for these areas, and further work will be undertaken during the next stage of design development to consider impacts and mitigation if required.*	Changes to areas of flood risk as a result of amendments to the hydraulic model with further assessment work required at next stage of design development.
7.9.52 paragraph amendment	Updated paragraph inserted as follows: *For the River Dee (tidal) the operation of the Scheme may reduce flood risk in a large area adjacent to the Scheme. In some cases, the decrease in water level is expected to be more than 0.3 m.* *However, and relating to this extreme scenario (0.1% AEP in 2100) only, the FCA modelling also indicates there are some localised areas where both flood depth and extents may increase. On the right banks, flood depths could increase by up to 6 mm in residential areas of Garden City, up to 10 mm in open space (pastoral agricultural) areas of the Northern Gateway Development and up to 2 mm in proposed commercial areas of the Northern Gateway Development. On the left bank in commercial and open space (pastoral agricultural) areas in Queensferry, flood depths could increase by up to 2 mm or 4 mm respectively.*	Changes to areas of flood risk as a result of amendments to the hydraulic model and more detail narrative provided on areas deemed to be at risk.
7.9.53 paragraph amendment	Updated paragraph inserted as follows: *For Queensferry Drain (fluvial), the expected overall trend is for the operation of the Scheme to reduce flood depths across the catchment.*	The predicted and overall decrease of flood depths to commercial areas near the Scheme remains unchanged. However, there is

ES Chapter 7: Road Drainage and the Water Environment		
Paragraph	Amendment	Additional Information/Explanatory Note
	In some cases, for example commercial areas near the Scheme, the decrease is expected to be in excess of 0.3 m. When comparing pre and post development scenarios during the 1% AEP (2100) fluvial (67% blockage) event, there is an increase in water levels of up to 0.07 m within an area of open space (pastoral agricultural) in the Sandycroft area.	anticipated to be an increase in water levels to an area of pastoral agricultural land in the Sandycroft area upstream of the bridge during periods of extreme flood events.
Table 7-25	Table updated to reflect information on flood risk impacts and TAN15.	Amendments to some effects of significance.
7.9.61 paragraph amendment	Updated paragraph inserted as follows: *Overall, under the worst-case scenario, the Scheme results in Neutral, Slight Beneficial or Slight Adverse permanent effects on flood risk, with no significant adverse effects identified. Under a best-case scenario, Major and Moderate beneficial effects were identified for Pastoral Agriculture (River Dee Tidal) and Commercial receptors (Queensferry Drain), respectively. Both these beneficial effects are considered significant. Due to low confidence in the FCA model results for River Dee Fluvial sources in the Chester Racecourse and the Wepre Drain area, further work will be undertaken during the next stage of design development to consider impacts and mitigation for those areas, if required.*	None of the information provided in this addendum affects the outcomes of the assessment of the impact of the Scheme on the water environment as described in Chapter 7 of the ES (September 2025).

ES Chapter 16: Marine Environment		
Paragraph	Amendment	Additional Information/Explanatory Note
16.5.2 a) & b)	Omit paragraphs describing potential remedial/aesthetic work to retained river piers.	The scope of any potential works to the river piers that are to remain in-situ has not yet been determined and would be subject to further consultation and design considerations. NRW raised this as a concern and that there were insufficient details of the proposed works for the river piers that would remain in-situ. Welsh Government therefore decided to remove this from the current A494 River Dee Bridge Replacement Scheme. If remediation of the river piers is required, it would proceed as a separate project under the appropriate consenting route at that time and be accompanied by the necessary environmental assessments.
16.5.2 (new)	Additional text added to end of para as follows: *However, by adopting best practice methods and including provisions for pollution control measures in accordance with Guidance for Pollution Prevention (GPP), these risks can be managed to acceptable levels. These mitigation measures would be set out in the CEMP that would be prepared by the Contractor and submitted to NRW for approval at least eight weeks prior to site mobilisation.*	Other minor amendments made to text omitting 'concentration' and replacing with 'presence or'. Insertion of 'potentially'. Additional paragraph added at end.
16.6.13 amended. New paragraphs at 16.6.14 & 16.6.15.	Dee Estuary / Aber Dyfrdwy SAC – 16.6.14 – Annex 1 habitats present as a qualifying feature - list inserted 16.6.15 – Annex 2 species present as a qualifying feature - list inserted	References to primary reasons and qualifying features of Annex I & 2 habitats inserted.

ES Chapter 16: Marine Environment		
16.6.16	Inserted "European smelt (*Osmerus eperlanus*) is also noted for its presence".	NRW have requested that River Lamprey and European smelt be clearly referenced in the ES as they are features of the Dee Estuary/ Aber Dyfrdwy SAC and the River Dee and Dee Estuary/Aber Afon Dyfrydwy SSSI's.
16.6.17	Minor amendments and insertion of "European smelt (*O. eperlanus*)"	As above under 16.6.16
16.6.18	Insertion of "European smelt (*O. eperlanus*)"	As above under 16.6.16 and 16.6.17
16.6.53 previously 16.6.51	Paragraph updated to reflect the continued decline in numbers of salmon and the 'At Risk' status of the species.	NRW have requested that the ES be amended to reflect that salmon in both the River Dee and the Wye are currently classed as being 'At risk'.
16.9.3 b)	Omitted	Extraction of silt from the riverbed no longer required for piling operations.
16.9.3 b) formerly 16.9.3 c)	Amended to remove reference to 1 day timescale	Minor error.
Table 16-12	Inserted *In-river piling activity working hours would be limited to between 08:00 to 17:00, and no piling work to take place in the 3 hours leading up to high tide at Chester weir.*	NRW advised that proposed mitigation should be included in the table
This concludes the amendments made to ES Chapter 16 Marine Environment		

Statement to Inform Appropriate Assessment (SIAA)		
Paragraph	Amendment	Additional Information/Explanatory Note
1.1.108	Reference to potential minor remedial works to existing river piers and concrete repairs omitted	To avoid prejudging potential effects of remedial works to the existing river piers that will remain in-situ, any remediation or enhancement to the river piers is omitted from the current A494 River Dee Replacement Scheme. If remediation is proposed at a later date, it would proceed as a separate project under the appropriate consenting route and accompanied by the necessary environmental assessments.
Page 60 under title *Assumptions*	Paragraphs a) and b) omitted	Any remedial works to existing river piers has been omitted from the current A494 River Dee Replacement Scheme.
Table 4 Underwater noise and vibration	The following text has been deleted from the Table "The construction would be carried out in terrestrial areas and intertidal areas during low tide conditions."	Working at low tide does not reflect the wider mitigation measures and cannot be guaranteed.
Table 7	Minor amendments relating to pollution prevention measures and Sea Lamprey.	References to embedded mitigation measures removed and record that construction phase pollution measures should be considered as mitigation at the AA stage.
Table 8	Additional text inserted	Additional text inserted as follows: *The Scheme will maintain the existing road drainage outfalls into the Queensferry drain and operational traffic flows and vehicle composition are anticipated to remain consistent with the existing baseline. In addition, during operation, the North and Mid Wales Trunk Road Agency (NMWTRA) will continue to manage the strategic road network in accordance with the Welsh Government Trunk Road Maintenance Manual (WGTRMM) 1. These established standard operating procedures set out the response to pollution events and provide further operational safeguards.*

[1] Welsh Government, April 2023. Welsh Government Trunk Road Maintenance Manual 2023 – Issue 1

Statement to Inform Appropriate Assessment (SIAA)		
Paragraph	Amendment	Additional Information/Explanatory Note
1.1.207 – 1.1.209 amended and 1.1.214 – 1.1.216 omitted	Mitigation measures amended to reflect those prescribed in the ES.	Mitigation measures omitted and moved to AA stage. Text amended to be consistent with that described in the ES.
1.1.231	Identification of potential disturbance to otters during the construction and demolition period.	Mitigation measures updated to include for regular site inspections to ensure safe passage of otters along riverbank during the construction period Contractor to be advised of mitigation measures to be implemented during construction and included in CEMP/REAC as a requirement.