



**Cyfoeth
Naturiol
Cymru
Natural
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Wales**

Ein cyf/Our ref: CAS-36666-W6N1
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15/08/2017

By Email Only: [REDACTED]

Er Sylw / For the attention of: [REDACTED]

Annwyl / Dear Mr [REDACTED],

Road improvements to A55/A494/A548 Environmental Screening and Scoping Report (ESSR): Key Stage 2

Thank you for consulting NRW about the above, which was received on the 21st of July 2017. We received the following documents for review:

- Environmental Impacts Assessment Screening- Blue and Red Option
- Assessment of Implications on European Sites

For clarity, the letter has been set into topics relevant to NRW's remit and within those topics, comments on the specific documents submitted are set out.

Protected Sites and Species

Assessment of Implications on European Sites (AIES)

For clarity NRW believe that a statement confirming that works are required in respect of Dee Bridge replacement and A55/A494, whichever option is progressed, is needed as part any plan to improve the existing infrastructure. Regarding Table 5.1, we believe that there is a typographical error, in respect of Deeside & Buckley Newt Sites and for the red option this should be amended to: "Significant effects cannot be ruled out".

For the purposes of Regulation 61 of the Conservation of Habitats and Species Regulations 2010 (as amended), it is considered that there are likely to be significant effects on the following European Sites, considered within this report, either alone or in combination with other plans and projects:

- The Dee Estuary SAC, SPA, Ramsar – Blue and Red Route.
- River Dee and Bala Lake SAC – Blue and Red Route.

- Deeside & Buckley Newt Site SAC – Blue and Red Route.

Blue Route

We have no comment about the AIES in respect of protected sites and species for the blue route.

Red route

- River Dee Special Area of Conservation (SAC).

Cumulative /indirect impacts associated with maintenance of Dee Bridge need to be listed and assessed.

- Deeside & Buckley Newt Sites Special Area of Conservation (SAC).

Cumulative /indirect impacts associated with the upgrade of the A55/A494 need to be listed and assessed.

EIA Screening

The screening for both routes does not confirm the full range of species/habitats to be subject to assessment. No reference has been made to long term management and surveillance. Neither has reference to incidental capture and killing as set out within the Habitats Directive, Article 15 (Council Directive 92/43/EEC) been made.

There is a need to consider the indirect impacts on the River Dee SAC owing to the required replacement of the River Dee Bridge and a need to consider indirect impacts on the Deeside & Buckley Newt Sites SAC owing to required upgrade of the A55/A494 interchange. There is also a need to consider cumulative impacts and in-combination effects of the Dee Bridge renewal as an indirect effect for the red route A949/A55.

Air Quality

We note that an appropriate assessment will be conducted as part of the proposal as the screening for Likely Significant Effects on European Protected Sites cannot be ruled out.

NRW would recommend that prior to undertaking modelling with respect to air quality, that features of the sites are within the relevant traffic air pollution screening distance (200m) and if those features are sensitive to the traffic pollutants (NO_x, SO₂ etc and the conversion of NO_x to nitrogen deposition). This is relevant to both potential routes and in particular, the Red route and the Dee Estuary SAC as there is potential for the salt marsh feature to be within the screening distance.

Landscape

Blue Route

The screening report identifies potential for different elements of the landscape and townscape, from substantial adverse effects, to slight beneficial effects. This route option

would affect local landscape and townscape character and visual amenity either side of an existing road corridor.

From this, we infer the scale of the proposal would result in significant effects which warrant assessment under the EIA Regulations.

In relation to our landscape planning remit, there are no statutory designated landscapes within the vicinity of this option, so we will have no further comments to make on the landscape effects of any subsequent preferred route option.

This route option (should it become a preferred option) should look to realise the cultural benefits gained from the experience of landscape. The scheme's landscape design objectives should look to support landscape perceptions through views, sense of place, and scenic interest that can help to create a positive experience of North East Wales. This is alongside traditional highway scheme considerations about mitigation - reconnecting the disturbed landscape, screening and reflecting local character.

Some examples include:

- Views of the Dee Estuary and the Wirral Peninsular
- Views of the wooded valley, fieldscapes and intricate landforms next to the Afon Conwy Valley
- Extensive areas of Wild flowers along some cuttings

Red Route

The screening report identifies potential for different elements for the landscape and townscape, from substantial adverse effects, to neutral effects. This route option would affect local landscape and townscape character and visual amenity either side of sections of new/ existing road corridor.

From this, we infer the scale of the proposal would result in significant effects which warrant assessment under the EIA Regulations.

In relation to our landscape planning remit, there are no statutory designated landscapes within the vicinity of this option, so we will have no further comments to make on the landscape effects of any subsequent preferred route option.

This route option (should it become a preferred option) should look to realise the cultural benefits gained from the experience of landscape. The scheme's landscape design objectives should look to support landscape perceptions through views, sense of place, and scenic interest that can help to create a positive experience of North East Wales. This is alongside traditional highway scheme considerations about mitigation - reconnecting the disturbed landscape, screening and reflecting local character.

Geoscience

Our previous comments, as set out in NRW's letter to AECOM, dated 13 July 2017 (and copied at the end of this memo), remain valid. In addition to those comments we make the following points:

Section 3.68 (blue option) and Section 3.73 (red option) highlights that “Disturbance of potentially contaminated soils, sediments, and waters posing a potential risk to construction workers, groundwater, soils and geology”. Disturbance of potentially contaminated soils could cause a risk to surface waters as well as groundwater. The Scoping Report should be amended to ensure that all controlled waters are included in the Environmental Impact Assessment.

Table 3.1 (both options): ‘The Airfields’ is highlighted as an area that would potentially be affected by the development, with Air Quality being identified as a specific receptor. Given the historical use of the Airfields, there is potential for contaminated soils and/or groundwater to exist in this part of the development area. Therefore, we would expect the EIA to include an assessment of the likely effects from disturbance of the potentially contaminated soils and/or groundwater.

Where any infiltration of water is proposed, it will be necessary to assess the potential impacts on the quality and quantity of the underlying groundwater and propose appropriate mitigation measures where necessary.

Natural Resources Wales recommends that developers should:

1. Follow the risk management framework provided in CLR11, Model Procedures for the Management of Land Contamination, when dealing with land affected by contamination.
2. Refer to the Environment Agency’s [‘Guiding Principles for Land Contamination’](#) for the type of information that we require in order to assess risks to controlled waters from the site. The Local Authority can advise on risk to other receptors, such as human health.
3. Refer to our [groundwater protection](#) advice on www.gov.uk

Flood Risk

Blue Route – Water Environment

We have considered this section of the EIA Screening report and advise that further consideration of how the on-line improvements to the A494 and A55 could impact water bodies in vicinity of the project, is required. For example, it may be necessary to realign Queensferry Drain Pumping Station to allow for widening of the A494. It would be beneficial to have some discussion within the screening report to show how the water features in this location could be modified as part of the scheme, taking into account NRW’s general opposition to the culverting of watercourses.

This section of the EIA screening recognises the need for a Flood Consequences Assessment (FCA) to be produced. This is welcomed. It is for the FCA to identify the key flood risks to, and arising from, the proposed development and also to establish appropriate mitigation measures to ensure that the flooding consequences can be acceptably managed over the development lifetime in accordance with TAN15: Development & Flood Risk. We recommend that discussion is included within the EIA screening report on how the effects of climate change could affect the scheme over its development lifetime. Further guidance is available on Welsh Government’s website at:

<http://gov.wales/topics/planning/policy/policyclarificationletters/2016/cl-03-16-climate-change-allowances-for-planning-purposes/?lang=en>

NRW has numerous sources of flood risk information, including hydraulic and hydrological modelling, which could be obtained for use in assessing tidal and fluvial flood risks affecting the project area. This information can be requested directly from NRW. Further guidance is available on our website:

<http://www.naturalresources.wales/evidence-and-data/access-our-data/?lang=en>

Flood Risk Activity Permit

The parts of the bridge between left and right bank MHWS (Mean High Water Springs) are likely to need a Marine Licence (this may include some of the riverside parts of the flood defence embankments but is not likely to include the entire structures). Note any new bridge piers in the river channel would be subject to Marine Licensing requirements. Please direct any queries about Marine Licensing to the team at marinelicensing@cyfoethnaturiolcymru.gov.uk.

Any work on the Dee *floodplain* could need a Flood Risk Activity Permit under the Environmental Permitting (England and Wales) (Amendment) (No. 2) Regulations 2016, along with all works affecting the main rivers Daisy Bank Farm Drain, Queensferry Drain and Queensferry Drain pumping station. We will be able to clarify which elements of the work will need a Permit once more detailed plans/designs are available.

Any works to the A494 *bridge* would not need a Flood Risk Activity Permit (government works in relation to a bridge are excluded under paragraph 10, Part I of Schedule 23ZA of the Regulations), but we are very keen to work closely with you on the design plans for the bridge because they have potential to adversely affect the flood defence embankments which protect the community of Queensferry.

Red Route – Water Environment

The red route affects greenfield and undeveloped land, and introduces large areas of new impermeable areas. In order to ensure that the rates of surface water runoff and surface water volumes are sustainably managed, we would recommend that the reference is made to the Lead Local Flood Authority's (Flintshire County Council) surface water drainage guidance, which is available on their website at:

<http://www.flintshire.gov.uk/en/PDFFiles/Planning/Adopted-SPGNs/SPGN-No-29.-Management-of-Surface-Water-for-New-Development.pdf>

We would advise that this section of the EIA Screening confirms that a detailed Flood Consequences Assessment will also be produced to support and inform development proposals. It is for the FCA to identify the key flood risks to, and arising from the proposed development, and also to establish appropriate mitigation measures to ensure that the flooding consequences can be acceptably managed over the development lifetime in accordance with TAN15: Development & Flood Risk. We recommend that discussion is

included within the EIA screening report on how the effects of climate change could affect the scheme over its development lifetime. Further guidance is available on Welsh Government's website at:

<http://gov.wales/topics/planning/policy/policyclarificationletters/2016/cl-03-16-climate-change-allowances-for-planning-purposes/?lang=en>

NRW has numerous sources of flood risk information, including hydraulic and hydrological modelling, which could be obtained for use in assessing tidal and fluvial flood risks affecting the project area. This information can be requested directly from NRW. Further guidance is available on our website:

<http://www.naturalresources.wales/evidence-and-data/access-our-data/?lang=en>

This route also has the potential to affect numerous "ordinary" and "main river" watercourses and their flood plains, and bespoke Flood Risk Activity Permits may be required from Natural Resources Wales for works and/or structures affecting "main river", their floodplains, and flood defence infrastructure.

For both, or either option we would be pleased to discuss the scope of the FCA as the project progresses. When considering the impact of proposed highway infrastructure on flooding both to the highway and elsewhere, the FCA should include (but not necessarily be limited to) assessment of:

- * the effect of any change to existing bridges/new bridge design
- * appropriate sizing for new culverts
- * assessment of any changes to flood risk resulting from changes (e.g. upsizing) to existing culverts
- * assessment of flooding in the event bridges and culverts become blocked
- * assessment of any proposed river realignment(s)
- * any impacts on overland flow routes
- * proposed mitigation measures if adverse impacts are identified

These assessments should consider the flood risks up to the 0.1% AEP fluvial and 0.1% AEP *plus climate change* tidal events (including with a breach of the tidal defences).

Our comments above only relate specifically to matters that are included on our checklist "Natural Resources Wales and Planning Consultations" (March 2015) which is published on our website: (<https://naturalresources.wales/media/5271/150302-natural-resources-wales-and-planning-consultations-final-eng.pdf>) We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests, including environmental interests of local importance. The applicant should be advised that, in addition to planning permission, it is their responsibility to ensure that they secure all other permits/consents relevant to their development.

Yours Sincerely,

Charlotte Hawksworth

**Development Planning Adviser/ Cynghorydd Cynllunio Datblygu
DPAS/GCCD**