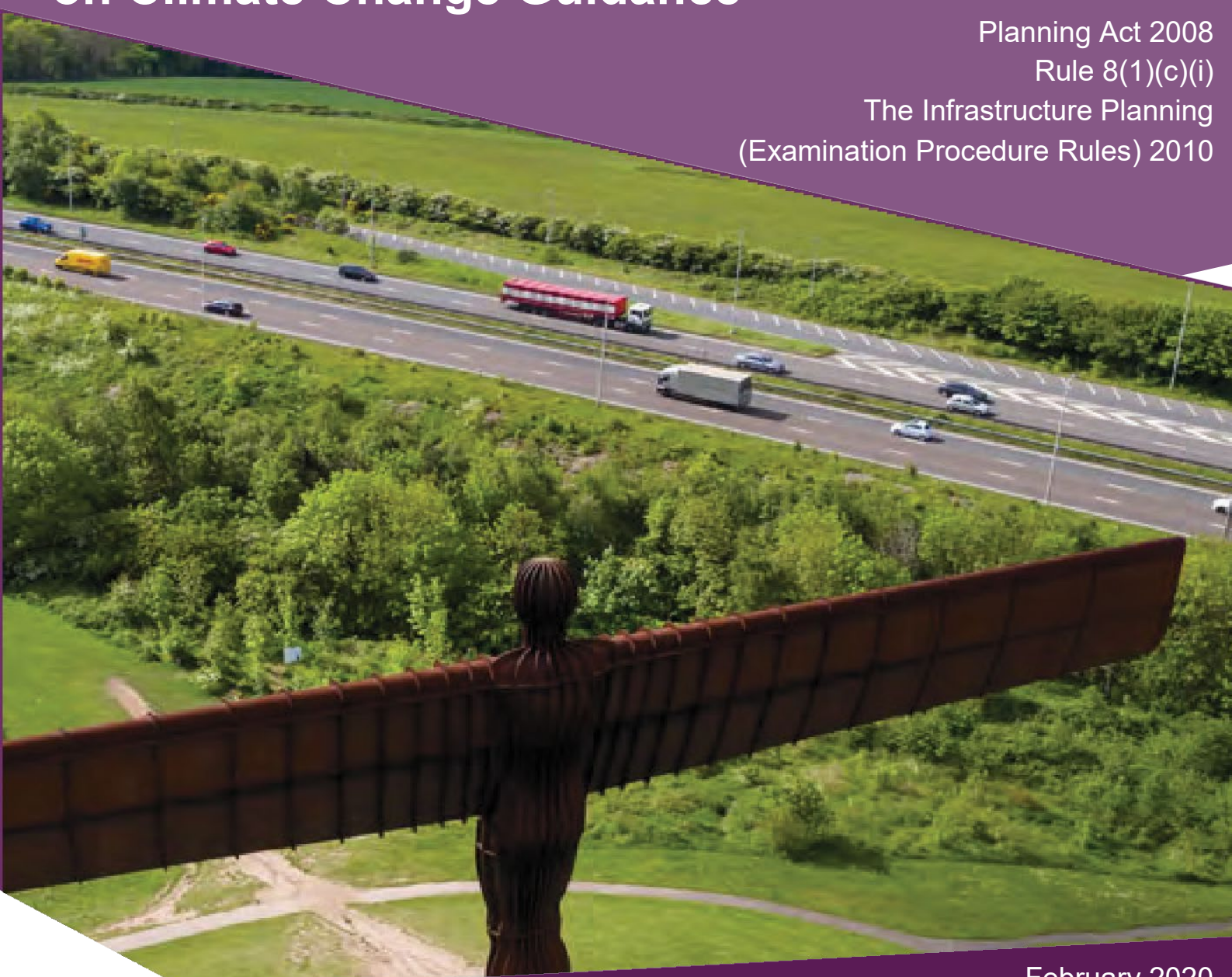


A1 Birtley to Coal House

Scheme Number: TR010031

Applicant's Responses to ExA's First Written Questions – Appendix 1.10.A - Correspondence on Climate Change Guidance

Planning Act 2008
Rule 8(1)(c)(i)
The Infrastructure Planning
(Examination Procedure Rules) 2010



Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Examination Procedure Rules) 2010**

**The A1 Birtley to Coal House
Development Consent Order 20[xx]**

**APPLICATION'S RESPONSES TO EXA'S FIRST
WRITTEN QUESTIONS – APPENDIX**

| | |
|---|--|
| Rule Number: | Rule 8(1)(c)(i) |
| Planning Inspectorate Scheme Reference | TR010031 |
| Application Document Reference | n/a |
| Author: | A1 Birtley to Coal House Project Team, Highways England |

| Version | Date | Status of Version |
|----------------|------------------|--------------------------|
| Rev 0 | 25 February 2020 | For Issue |

Wilde, Gabby

From: Maarouf, Caroline
Sent: 17 April 2019 08:29
To: Smith, Andy
Cc: Mo, Lucy
Subject: RE: climate change guidance

Hi Andy,

Thanks for sending through the revised section of the water report.

Climate change

This seems reasonable.

Lady's Park Burn

This sub catchment is not gauged and so nearest gauge is the River Team at Team Valley. The lady's park Burn is very flashy and it's a heavily wooded area, hence the risk of blinding to our screen. Maybe an appropriate action is for the Highway officers to view the screen on coach burn road?

Regards
Caroline

Caroline Maarouf
Flood and Coastal Erosion Risk Management Advisor
Partnership and Strategic Overview Team –Durham & Tees Valley

Environment Agency | Northumberland Durham and Tees
Tyneside House, Newcastle Business Park, Skinnerburn Road, NE4 7AR

My working days are Tuesday – Friday

Simple, fair, effective charges.
From 1 April 2018 our regulatory charges are changing.
Find out how our plans could affect you.



From: Smith, Andy [mailto:Andy.Smith@wsp.com]
Sent: 16 April 2019 17:17
To: Maarouf, Caroline
Cc: Mo, Lucy; Ashworth, Nicola
Subject: RE: climate change guidance

Caroline,

I am currently making changes to the water reports for the A1 Birtley to Coalhouse scheme as we discussed last week and would like clarification on a couple of aspects:

Climate Change

Many thanks for sending over the climate change advice. I propose to include some additional text within the FRA to outline that no further assessment is required, as below, please can you confirm that my interpretation and suggested text is ok?

The hydraulic modelling that has been undertaken has been in accordance with the allowances in 'Flood risk assessments: climate change allowances' (published by the Environment Agency in February 2016). The Environment Agency in their document (*Using 'Flood risk assessments: climate change allowances' following publication of new climate projections in UKCP18*) consider that these are still the best national representation of how climate change is likely to affect flood risk for:

- peak river flow
- peak rainfall intensity

However, in the case of sea level rise then the guidance for this type of scheme (at the time of writing, again set out in *Using 'Flood risk assessments: climate change allowances' following publication of new climate projections in UKCP18*) is that

"in exceptional cases where developments are very sensitive to flood risk and have a lifetime of at least 100 years², we recommend you assess the impact of both the current allowance in 'Flood risk assessments: climate change allowances' and the 95th percentile of UKCP18 'RCP 8.5' scenario (high emissions scenario) standard method sea level rise projections of UKCP18, and plan according to this assessed risk. You will need to calculate sea level rise allowances beyond 2100 by extrapolating the UKCP18 dataset."

As the beyond the Scheme the lower reaches of the River Team are tidally influenced due consideration needs to be given to the potential implications of future sea level rise. However, in this instance it was not felt appropriate to undertake further assessment within the hydraulic model given that:

1. The Normal Tide Level (NTL) is at a weir over 3km from the site
2. The OS mapping indicates a change in level of between 5 and 10m between the site and the NTL

Therefore, no further assessment was required within the hydraulic model, which as constructed by the Environment Agency includes an adequate representation of the tidal boundary.

Lady Park Burn

We discussed the ability for HE to view the water levels on the trash screen to aid the mitigation of the residual risk and inform emergency management plans, however, I cant find the information on the Environment Agency's website, are you able to confirm that there is a guage here and if so how it can be accessed, so I can consider the appropriate approach?

River and sea levels for: Newcastle upon Tyne, Tyne and Wear, England

4:43pm Tuesday 16 April 2019

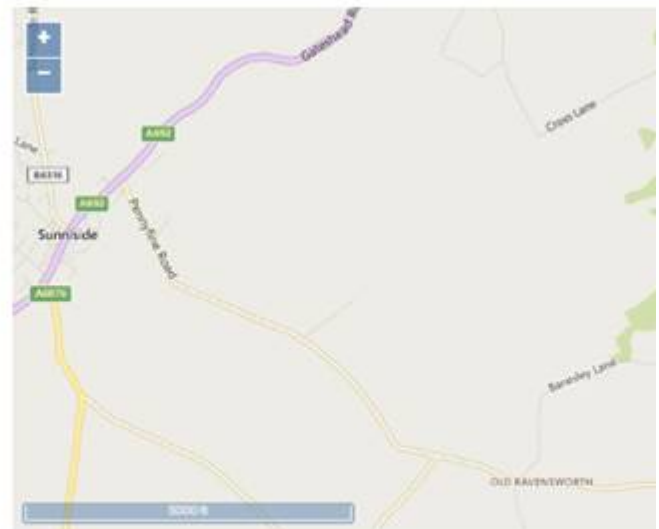
River and sea levels are regularly checked by a network of monitoring stations. These levels can help you understand your flood risk now and in the next few days. Enter a postcode or place to find your nearest station and select one from the map.

Location

5-day river level information for this area

You can get more information about local river and sea levels. Select a monitoring station from this list, or use the map.

- [Ouse Burn at Crag Hall](#)
- [Ouse Burn at Gosforth](#)
- [Ouse Burn at Woolsington](#)
- [River Team at Team Valley](#)



- [View the flood information service for England](#)
- [View your property's long term risk of flooding](#)
- [Flood information for Northern Ireland, Scotland and Wales](#)

Regards,
Andy

Andy Smith BSc MSc C.WEM CSci CEnv
Associate Director



[REDACTED]
Kings Orchard, 1 Queen Street,
Bristol, BS2 0HQ

From: Maarouf, Caroline [REDACTED]
Sent: 16 April 2019 09:58
To: Smith, Andy [REDACTED]
Cc: Mo, Lucy [REDACTED]
Subject: RE: climate change guidance

Hi Andy.

Attached is our guidance internally that we are working too.
Second page first paragraph is what I have asked you to do.

Thanks
Caroline

Caroline Maarouf
Flood and Coastal Erosion Risk Management Advisor
Partnership and Strategic Overview Team –Durham & Tees Valley

[REDACTED]
[REDACTED]
Environment Agency | Northumberland Durham and Tees
Tyneside House, Newcastle Business Park, Skinnerburn Road, NE4 7AR

My working days are Tuesday – Friday

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Find out how our plans could affect you.



From: Smith, Andy [REDACTED]
Sent: 15 April 2019 17:48
To: Maarouf, Caroline <[REDACTED]>
Subject: climate change guidance

Caroline,

Many thanks for your time on Thursday, I'm just following up on a few of the points and it would be helpful to have a copy of the latest guidance on climate change as I want to ensure that the version I have is the latest.

Regards,
Andy

Andy Smith BSc MSc C.WEM CSci CEnv
Associate Director



[REDACTED]
[REDACTED]

Kings Orchard, 1 Queen Street,

Bristol, BS2 0HQ

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