

Humber river basin district: climate change risk assessment worksheet

Name (as on your part A application form): Tarmac Trading Limited

Our permit reference number (if you have one): N/A

Your document reference number: TAR/SW/AW/5655/01/CCRA

Risk assessment worksheet for the 2050s

Humber river basin district

You must carry out a climate change risk assessment for any new bespoke waste and installations permit applications if you expect to operate for more than 5 years. Use the [user guide](#) to complete the table. You can add in extra pages if necessary.

Consider how your operations will be affected by the changes in weather and climate described in the table. Consider any changes to average climate conditions that may impact on your operations, for example extreme rainfall.

Also consider:

- critical thresholds - where a 'tipping point' is reached, for example a specific temperature where site processes cannot operate safely
- changes to averages - for example an entire summer of higher than expected rainfall causing waterlogging
- where hazards may combine to cause more impacts

You can add in other climate variables if you wish.

If you have stated on your application form that you do not expect to be operational in 2050, you must still consider climate change risks for the time you do intend to operate. Whilst the variables are for the 2050s, this is an estimated date and you may experience these conditions before then.

This worksheet will sit in your management system. It must appear on the management system summary you submit with your application, even if you do not need to submit the whole risk assessment with your application.

If your pre-mitigation risk score (column D) is 5 or higher, you must complete columns E to H.

| Potential changing climate variable | A Impact | B Likelihood | C Severity | D Risk (B x C) | E Mitigation (what will you do to mitigate this risk) | F Likelihood (after mitigation) | G Severity (after mitigation) | H Residual risk (F x G) |
|--|---|---|---|--|--|---|---|--|
| | | 4=Highly likely 3=Likely 2=Low likelihood 1=Unlikely | 4=Severe impact 3=Medium impact 2=Mild impact 1=Minor impact | 12-16 – H 8-9 – M/H 4-6 – M/L 1-3 - Low | | 4=Highly likely 3=Likely 2=Low likelihood 1=Unlikely | 4=Severe impact 3=Medium impact 2=Mild impact 1=Minor impact | 12-16 – H 8-9 – M/H 4-6 – M/L 1-3 - Low |
| 1. Summer daily maximum temperature may be around 6°C higher compared to average summer temperatures now. | Increased disamenity from dust. | 3 | 2 | 6 | Ensure dusk mitigation measures are carried out including dust suppression using water bowsers. Install a water storage tank or use a lagoon at the site to store suppression water. | 2 | 2 | 4 |
| 2. Winter daily maximum temperature could be 4°C more than the current average, with the potential for more extreme temperatures, both warmer and colder than present. | No negative impact expected for higher temperatures. Extreme temperatures (colder) may increase the likelihood of equipment (mobile plant, pumps, etc) breakdown. | 1 | 2 | 2 | The EA CCRA guidance specifies that mitigation is not required where the pre-mitigation score is less than 5 however plant and equipment will be subject to a planned preventative maintenance programme to minimise the potential for equipment breakdown or failure and an inventory of critical spare parts will be maintained. | 1 | 2 | 2 |

| Potential changing climate variable | A Impact | B Likelihood | C Severity | D Risk (B x C) | E Mitigation (what will you do to mitigate this risk) | F Likelihood (after mitigation) | G Severity (after mitigation) | H Residual risk (F x G) |
|---|---|---|---|--|---|---|---|--|
| | | 4=Highly likely 3=Likely 2=Low likelihood 1=Unlikely | 4=Severe impact 3=Medium impact 2=Mild impact 1=Minor impact | 12-16 – H 8-9 – M/H 4-6 – M/L 1-3 - Low | | 4=Highly likely 3=Likely 2=Low likelihood 1=Unlikely | 4=Severe impact 3=Medium impact 2=Mild impact 1=Minor impact | 12-16 – H 8-9 – M/H 4-6 – M/L 1-3 - Low |
| 3. The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity)*. | Future heavy rainfall events could increase the likelihood of: a) Inert materials washing off site. b) Disruption to inert restoration activities. c) Inundation of site facilities. | a) 3 b) 4 c) 4 | a) 2 b) 2 c) 2 | a) 6 b) 8 c) 8 | The proposed activities are the subject of planning permission reference CM9/1215/122 which included a Hydrogeological Impact Assessment and Flood Risk Assessment (HIA and FRA) ¹ . The HIA and FRA incorporates the potential effects of climate change and include mitigation measures in the design of the site to ensure that the risk of flooding off site is not increased compared to pre-development levels. Temporary bunds within the site will be constructed to minimise the effect on overland flood flow routes. An emergency flood plan for the site will be developed prior to operations commencing. | a) 2 b) 2 c) 2 | a) 2 b) 2 c) 2 | a) 4 b) 4 c) 4 |
| 4. Average winter rainfall may increase by 29% on today's averages. | Increased surface water runoff into the River Trent located to the north and east of the site. | 3 | 2 | 6 | Further details are presented above under Item 3. | 2 | 2 | 4 |
| 5. Sea level could be as much as 0.6m higher compared to today's level *. | Inland site above sea level. | 1 | 1 | 1 | No mitigation required as very low risk. Score under 5. | 1 | 1 | 1 |
| 6. Drier summers, potentially up to 34% less rain than now. | Increased disamenity from dust. | 3 | 2 | 6 | Ensure dust mitigation measures are carried out including dust suppression using water bowsers. Install a water storage tank or use a lagoon at the site to store suppression water. | 2 | 2 | 4 |

