Humber river basin district: climate change risk assessment worksheet

Name (as on your part A application form): Doncaster ERF

Our permit reference number (if you have one): EPR/SP3904SR/A001

Your document reference number: Adapting_to_climate_change_risk_assessment_worksheet_Humber

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)
1. Summer daily maximum temperature may be around 6°C higher compared to average summer temperatures now.	The Facility will be slightly less efficient due to warmer temperatures.	2	1	2	No mitigation required	N/A	N/A	N/A

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2. Winter daily maximum temperature could be 4°C more than the current average.	No negative impact expected. The ACC's will be designed to operate in a range of climatic temperatures allowing for increases and reductions in the average temperature.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3. The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity)*.	Localised flooding within the installation boundary	2 (The site lies within flood zone 3. The EA surface water flood risk map indicates that a small portion of the site is considered to be at low risk of surface water flooding.)	3	6	The Facility has been designed with a SUDS system to mitigate the risk of off-site flooding and to manage the discharge of surface water from the installation. The SUDS system will be designed to provide sufficient surface water storage for storm events up to the 1 in 100 year return period event and including a 10% allowance for climate change. The surrounding areas to the site already benefit from flood defences. The Flood Risk Assessment considered that surface water flooding is not considered to pose a significant risk to the development, provided that appropriately designed SuDS drainage features are incorporated within the design.	1	3	3

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4. Average winter rainfall may increase by 29% on today's averages.	Localised flooding within the installation boundary	2 (The site lies within flood zone 3. The EA surface water flood risk map indicates that a small portion of the site is considered to be at low risk of surface water flooding.)	3	6	The Facility has been designed with a SUDS system to mitigate the risk of off-site flooding and to manage the discharge of surface water from the installation. The SUDS system will be designed to provide sufficient surface water storage for storm events up to the 1 in 100 year return period event and including a 10% allowance for climate change. The surrounding areas to the site already benefit from flood defences. The Flood Risk Assessment considered that surface water flooding is not considered to pose a significant risk to the development, provided that appropriately designed SuDS drainage features are incorporated within the design.	1	3	3
5. Sea level could be as much as 0.6m higher compared to today's level *.	Site not at risk of coastal flooding	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6. Drier summers, potentially up to 34% less rain than now.	No negative impact expected.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7. At its peak, the flow in watercourses could be 30% more than now, and at its lowest it could be 65% less than now.	Localised flooding within the installation boundary	2 (The site lies within flood zone 3. The Flood Risk Assessment considers that the site is not at significant risk of fluvial flooding).	3	6	The Facility has been designed with a SUDS system to mitigate the risk of off-site flooding and to manage the discharge of surface water from the installation. The site lies within Flood Zone 3. However, the Flood Risk Assessment concluded that the site is not at significant risk of fluvial flooding from the River Don. The surrounding areas already benefit from existing flood defences.	1	3	3

*Indicates data has come from climate change allowances as part of the spatial planning process. Evidence from your planning submission is acceptable evidence for this worksheet.