

South east England river basin district: climate change risk assessment worksheet

Name (as on your part A application form): Inert Recycling (UK) Limited

Our permit reference number (if you have one): EPR/JB3102MM/A001 (Pre-application reference number)

Your document reference number: Climate Change Assessment (Appendix L)

Risk assessment worksheet for the 2050s

South east England 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 7°C higher compared to average summer temperatures now.	<p>The proposal entails the importation of inert waste for infilling of the quarry void that will be created following the mineral extraction activities.</p> <p>It's considered that the proposed waste types are not putrescible and therefore will not biodegrade to produce offensive odours.</p> <p>Furthermore, it's considered that proposed waste type is not combustible in nature.</p> <p>As such, it's considered that there will not be any negative environmental impacts arising from an increase in the summer daily temperature.</p>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2. Winter daily maximum temperature could be 4°C more than the current average.	In light of the comments mentioned above, it's considered that there will be no negative environmental impacts arising from an increase in the winter daily 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)*.	There are two ways in which surface water will be managed at the site. Firstly, the sand within the site lies above and below the water table and so it is proposed that the site will be dewatered under a water discharge licence to enable extraction of	3	2	6	<p>Inert Recycling will monitor the local climate in order to identify any significant trends in rainfall that may result in an increased risk to flooding.</p> <p>If necessary, Inert Recycling will review site operations and consider the implementation of additional or alternative</p>	2	2	4

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	<p>the deeper sands and allow the engineering and infilling of the site to be done dry. Rainwater falling on unfilled areas of the Site will collect in low areas, where it will be allowed to soak away naturally or will be removed by dewatering.</p> <p>Second, once the inert restoration materials rises above the water table, the working area will be kept free from surface water by grading the surface of the restoration materials to facilitate runoff.</p> <p>On completion, the gradient of the final landform will control surface water drainage across the installation. The Site will be internally draining and surface water will collect in the surface water features at the Site. From here, the water would either evaporate or flow through the Folkestone Formation aquifer (the larger lake will be connected to the aquifer, see the HRA for further detail).</p> <p>Increase in rainfall intensity may result in an increased amount of surface water which</p>				measures to manage surface water.			

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	<p>consequently may result in a number of impacts at different stages of the work. This includes the following:-</p> <ul style="list-style-type: none"> • Increased stress at the discharge point during extraction and infilling; and • Increased stress on the surface water features that are proposed post restoration. <p>Both of the above may result in an increased risk of flooding.</p>							
4. Average winter rainfall may increase by 44% on today's average.	As mentioned above, an increase in rainfall may result in increased stress on the discharge point during extraction/infilling or stress on the surface water features once the site has been restored.	3	2	6	<p>Inert Recycling will monitor the local climate in order to identify any significant trends in rainfall that may result in an increased risk to flooding.</p> <p>If necessary, Inert Recycling will review site operations and consider the implementation of additional or alternative measures to manage surface water.</p>	2	2	4
5. Sea level could be as much as 0.6m higher compared to today's level *.	<p>The site is situated inland and the nearest surface water feature is a tributary of the River Stor which is located along the northern boundary of the site. The River Stor is located approximately 700m west of the site.</p> <p>As such, a low environmental impact is</p>	3	2	6	Monitor permanent change to local river levels and plan for flood defences as appropriate.	2	1	2

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	expected with regards to increased sea levels.							
6. Drier summers, potentially up to 44% less rain than now.	Increase in summer temperatures may result in increased risk to dust emissions during the infilling and restoration process.	2	3	6	<p>As a function of the environmental permit application, a dust management plan has been prepared which identifies the potential causes and effects of dust and describes the measures that will be in place to prevent the occurrence of dust at the site.</p> <p>In the event that an environmental permit gets issued for the site and includes the dust management plan as part of the operating techniques, Inert Recycling will ensure site operations are undertaken in accordance with the dust management plan.</p> <p>As detailed in the dust management plan, the plan will be reviewed every 12 months to ensure that it is fit for purpose and meets the requirements of current guidance.</p> <p>Further, Inert Recycling will monitor the local climate in order to identify any significant trends that may result in an increased risk to dust.</p> <p>If necessary, Inert Recycling will review site operations and consider the implementation of additional or alternative dust suppression systems. This may include a rainwater harvesting system which will also help to mitigate the impact of increased rainfall.</p>	2	2	4

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7. At its peak, the flow in watercourses could be 50% more than now, and at its lowest it could be 75% less than now.	Increased stress on the River Stor tributary at the discharge point.	3	2	6	Manage the discharge flow rate to avoid impacts.	2	2	4

*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.