

Thames river basin district: climate change risk assessment worksheet

Name (as on your part A application form): **SOF-11 Docklands DC UK BIDCO LTD.**

Our permit reference number (if you have one): **EPR/QP3108ST/A001**

Your document reference number: **Climate Change Risk Assessment v2**

Risk assessment worksheet for the 2050s

Thames 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.	Higher Energy requirements for cooling demand which may cause a drop in efficiencies.	2	3	6	Periodic review of energy efficiency should help to identify opportunities for improvements. Temperature controls and limits are defined and measures are in place to help ensure these are met.	2	2	4

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)
2. Winter daily maximum temperature could be 4°C more than the current average.	Higher Energy requirements for cooling demand which may cause a drop in efficiencies.	2	3	6	<p>Periodic review of energy efficiency should help to identify opportunities for improvements.</p> <p>Temperature controls and limits are defined and measures are in place to help ensure these are met.</p>	2	2	4
3. The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity)*.	<p>With increased rainfall there is the possibility that surface drains would become overwhelmed and the site could experience various forms of flooding especially given its proximity to the Thames.</p> <p>Bunds could become ineffective once filled / partially filled with rainwater.</p>	2	3	6	<p>The entire site falls within the “very low” category for flooding from rivers, sea or surface waters. This is because it is protected from flooding from the Thames and surrounding dock by flood defences</p> <p>Periodic inspection of onsite drainage to help ensure there is no blockages or issues with surface water drainage systems.</p> <p>Fuel tanks and diesel generators are located internally to reduce the risk of increased rainfall impacting this mission critical equipment.</p> <p>Bunds have leak detection and high level alarms.</p>	2	2	4

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4. Average winter rainfall may increase by 36% on today's averages.	<p>Increased rainfall could lead to surface drains becoming overwhelmed.</p> <p>Bunds could become ineffective once filled / partially filled with rainwater.</p>	2	3	6	<p>The entire site falls within the "very low" category for flooding from rivers, sea or surface waters. This is because it is protected from flooding from the Thames and surrounding dock by flood defences</p> <p>Periodic inspection of onsite drainage to help ensure there is no blockages or issues with surface water drainage systems.</p> <p>Fuel tanks and diesel generators are located internally to reduce the risk of increased rainfall impacting this mission critical equipment.</p> <p>Bunds have leak detection and high level alarms.</p>	2	2	4
5. Sea level could be as much as 0.6m higher compared to today's level	Due to the proximity of the site to the Millwall dock and the river Thames, sea level rise could lead to potential flooding.	2	3	6	<p>A flood risk assessment has been completed at the site as part of a recent planning application. This has assessed the risks from a potential sea level rise.</p> <p>The site is protected by the Thames Tidal Defences (TDD) which include the Thames Barrier and secondary tidal flood defences along the River Thames. The TTD provides protection during fluvial and tidal events with up to a 1 in 1000 (0.1%) annual probability.</p>	2	2	4

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)
6. Drier summers, potentially up to 42% less rain than now.	The site may be subject to cooling water restrictions of temperature and volume.	2	3	6	<p>Where possible seek to reduce cooling loads / improve efficiencies / scale back operations during periods of low rainfall / high temperatures.</p> <p>Periodic review of energy efficiency should help to identify opportunities for improvements.</p> <p>Temperature controls and limits are defined and measures are in place to help ensure these are met.</p>	2	2	4
7. At its peak, the flow in watercourses could be 35% more than now, and at its lowest it could be 75% less than now.	<p>Due to the proximity of the site to the Millwall dock and the river Thames any increase in flow / sea level could lead to an increase in the risk of flooding at the site.</p> <p>The site may be subject to cooling water restrictions of temperature and volume.</p>	2	3	6	<p>A flood risk assessment has been completed at the site as part of a recent planning application. This has assessed the risks from a potential sea level rise.</p> <p>The site is protected by the Thames Tidal Defences (TDD) which include the Thames Barrier and secondary tidal flood defences along the River Thames. The TTD provides protection during fluvial and tidal events with up to a 1 in 1000 (0.1%) annual probability.</p> <p>Where possible seek to reduce cooling loads / improve efficiencies / scale back operations during periods of low rainfall / high temperatures.</p> <p>Temperature controls and limits are defined and measures are in place to help ensure these are met.</p>	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.