



Recycling and recovery UK

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**Newquay**

**Household Waste Recycling Centre (HWRC)**

**1.6 Climate Change Risk Assessment**

**December 2025**

## DOCUMENT DETAILS

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## DOCUMENT REVIEW HISTORY

Date	Version	Summary of Changes
December 2025	1.0	Original document to support environmental permit application for a HWRC



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## CONTENTS

1 Climate Change Risk Assessment ..... 1

## APPENDICES

Appendix A Risk Assessment Definitions and Risk Assessment Matrix  
Appendix B Climate Change Risk Assessment

## **1 Climate Change Risk Assessment**

- 1.1.1 Newquay Household Waste Recycling Centre climate change risk assessment has been undertaken using the EA risk assessment example for adapting to climate change for the hazardous, non-hazardous and inert waste treatment sectors.
- 1.1.2 Risk assessment definitions and the risk estimation matrix are presented in Appendix A.
- 1.1.3 The climate change risk assessment is presented in Appendix B.

## Appendix A - Risk Scoring Definitions and Matrix

### Risk Scoring Definitions

Severity of Impact	Definition
Severe	short-term, acute impact to operations resulting in permanent compliance breach(es)
Medium	short-term, acute impact to operations resulting in multiple temporary compliance breaches
Mild	short-term, acute impact to operations resulting in single temporary compliance breach
Minor	short or long-term impact resulting in additional measures for compliance

Likelihood	Definition
Highly likely	Event appears very likely in the short term and almost inevitable over the long term, or there is evidence of the event already happening
Likely	It is probable that an event will occur, or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term
Low likelihood	Circumstances are such that an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term
Unlikely	Circumstances are such that it is improbable the event would occur even in the long term

## Risk Scoring Matrix

**Risk score:** This is the likelihood of something happening multiplied by the severity of its impact.

Risk Scoring Matrix				
	Impact			
Likelihood	Severe (score = 4)	Medium (score = 3)	Mild (score = 2)	Minor (score = 1)
Highly Likely (score = 4)	16	12	8	4
Likely (score = 3)	12	9	6	3
Low Likelihood (score = 2)	8	6	4	2
Unlikely (score = 1)	4	3	2	1

Where the residual **risk category** is:

12 to 16 = High

8 to 9 = Moderate to High

4 to 6 = Moderate to Low

1 to 3 = Low



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## Appendix B – Climate Change Risk Assessment

Potential Climate Change Variable	Possible Impacts	Potential Mitigation Measures	Likelihood Rating	Consequence Rating	Risk Rating
Summer daily maximum temperature	Potential for increased waste reactions or fires involving heat sensitive or combustible waste	<p>Site will operate in accordance with a Fire Prevention Plan (FPP). The FPP will be reviewed at regular intervals and on at least an annual basis and implement any changes, following any of the events below:</p> <ul style="list-style-type: none"> <li>• Testing of the plan to ensure the plan works and staff understand the procedures to be undertaken</li> <li>• An incident</li> <li>• Change in legislation or formal guidance</li> <li>• Prior to a change in activity on site.</li> </ul> <p>Appropriate storage of heat sensitive wastes Rapid turnaround of wastes received at the site.</p>	Low Likelihood	Medium	Moderate to Low
	Potential for fire from overheating electrical equipment	<p>Reviewing heat rating of equipment used on site Providing shaded or cooled areas for equipment</p>	Low Likelihood	Medium	Moderate to Low
	Potential increase in expansion and stress on equipment, and UV degradation of plastic pipes and hoses	<p>Regular planned preventative maintenance and checks on site equipment Routing pipework out of direct sunlight</p>	Low Likelihood	Minor	Low

Potential Climate Change Variable	Possible Impacts	Potential Mitigation Measures	Likelihood Rating	Consequence Rating	Risk Rating
	Potential increased dust emissions	Review and if necessary, installation and increased use of dust suppression systems	Low Likelihood	Medium	Moderate to Low
	Potential for drought and loss of water supply	Review of contingency plans Explore options for water harvesting and retention, if necessary	Low Likelihood	Medium	Moderate to Low
	Potential increased risk of pests and scavengers	Pest control in place, monthly visits by expert provider Regular cleaning of storage areas	Low Likelihood	Medium	Moderate to Low
	Potential increased risk of wildfires affecting the site	Implementing fire breaks around the site boundary Implementation of Fire Prevention Plan on site	Unlikely	Mild	Low
Winter daily maximum temperature	Slightly higher winter maximums could generate regular odour complaints and pest infestations	Enhanced pest control measures Rapid turnaround of wastes likely to reduce pests or generate odour.	Low Likelihood	Medium	Moderate to Low
	Lower winter temperatures could result in an increased risk of pipes (or similar) freezing	Regular planned preventative maintenance and checks on site equipment Increased pipe lagging and insulation	Low Likelihood	Medium	Moderate to Low

Potential Climate Change Variable	Possible Impacts	Potential Mitigation Measures	Likelihood Rating	Consequence Rating	Risk Rating
Daily extreme rainfall	Potential for increased site surface water and flooding	Review and preparation of a site-specific flood plan	Low Likelihood	Medium	Moderate to Low
	Potential for drainage systems and interceptors to be overwhelmed	Inspection and maintenance of drainage systems Reviewing the capacity of drainage systems	Low Likelihood	Medium	Moderate to Low
	Potential for increased incidents involving water-reactive wastes	Store reactive wastes in appropriate containers	Low Likelihood	Minor	Low
Average winter rainfall	Potential for increased site surface water and flooding	Preparation of a site-specific flood plan	Low Likelihood	Medium	Moderate to Low
	Potential for drainage systems and interceptors to be overwhelmed	Inspection and maintenance of drainage systems Reviewing the capacity of drainage systems	Low Likelihood	Medium	Moderate to Low
	Potential for increased incidents involving water-reactive wastes	Store reactive wastes in appropriate containers	Low Likelihood	Minor	Low
Sea level rise	If a site is located near the coast there is potential increased risk of flooding and corrosion	Considered to be not applicable due to low risk of flooding from sea	N/A	N/A	N/A

Potential Climate Change Variable	Possible Impacts	Potential Mitigation Measures	Likelihood Rating	Consequence Rating	Risk Rating
	There could be localised issues with surface water discharge leading to backing up and worsening site flooding	Monitor and review situation Consider site-specific flood defences Prepare site specific flood plan.	Low Likelihood	Medium	Moderate to Low
Drier summers	Long periods of hot and dry weather could lead to a drought and may have an impact on water supplies for: <ul style="list-style-type: none"> <li>emergency water usage</li> <li>cooling systems</li> <li>fire fighting</li> <li>processes that require water as input for example dust suppression etc</li> </ul>	Reviewing current water usage Implementing recirculation or water harvesting systems Review Fire Prevention Plan Reviewing alternative measures for dust and fire suppression	Low Likelihood	Medium	Moderate to Low
	Potential increased impact of discharge to watercourse from on-site drainage systems where connected to water courses	Reviewing ERA and in particular surface water emissions and controls	Low Likelihood	Medium	Moderate to Low
More variance in river flow	Increased impact from on-site drainage systems or effluent treatment plants where they are connected to watercourses	Review drainage systems Review ERA	Low Likelihood	Medium	Moderate to Low

Potential Climate Change Variable	Possible Impacts	Potential Mitigation Measures	Likelihood Rating	Consequence Rating	Risk Rating
Storms	Potential for high winds to damage buildings and infrastructure and blow waste from the site	Review infrastructure Assess receptors and prevailing wind directions Implementing windbreaks Increased housekeeping measures Implement contingency plans	Low Likelihood	Mild	Moderate to Low
	Potential for lightning strikes to damage buildings and infrastructure	There are no tall structures on the site. If needed, carry out lightning risk assessment and install lightning conductors as necessary.	Low Likelihood	Mild	Moderate to Low