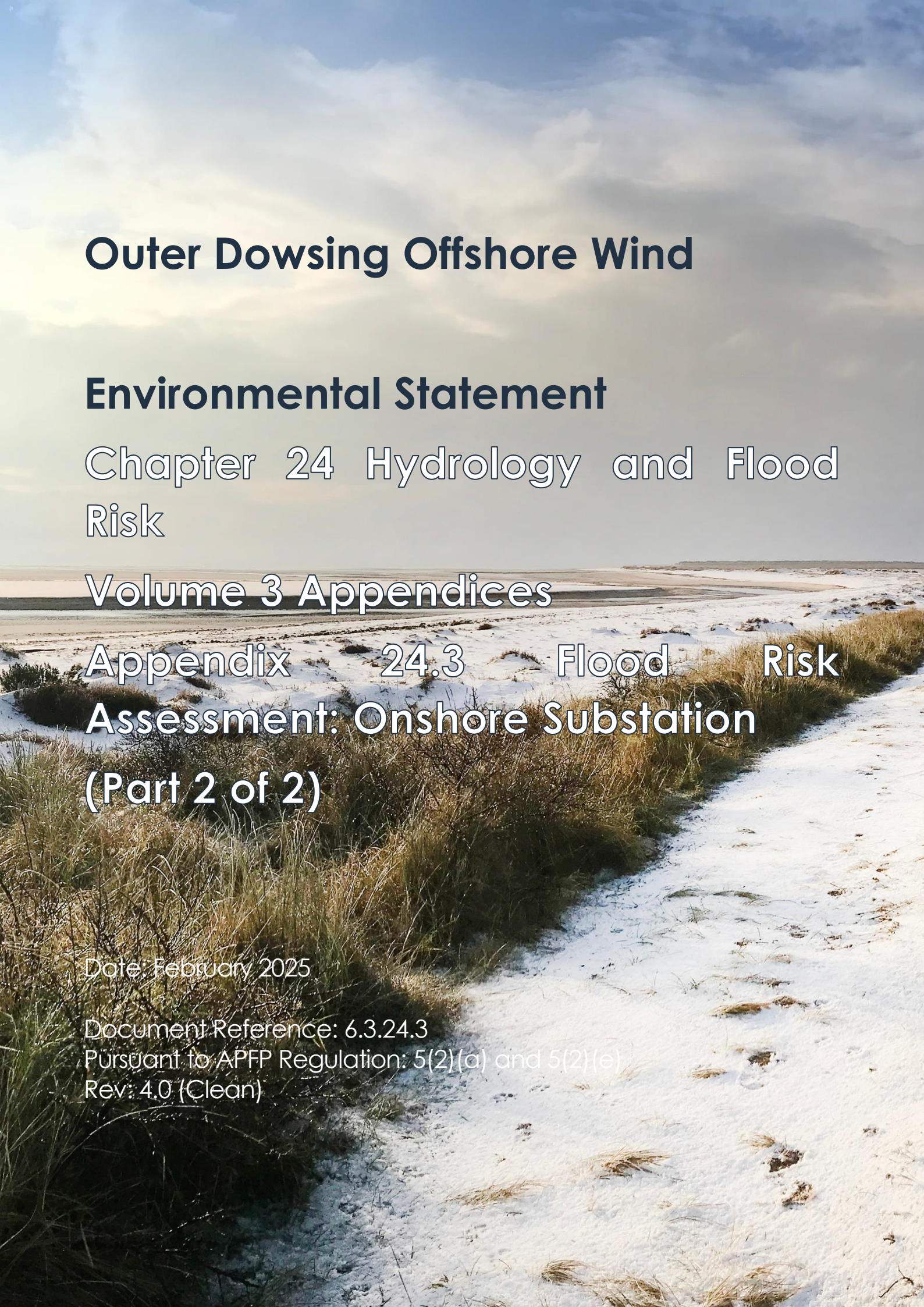


Outer Dowsing Offshore Wind

Environmental Statement

Chapter 24 Hydrology and Flood Risk

Volume 3 Appendices

Appendix 24.3 Flood Risk Assessment: Onshore Substation (Part 2 of 2)

Date: February 2025

Document Reference: 6.3.24.3
Pursuant to APFP Regulation: 5(2)(a) and 5(2)(e)
Rev: 4.0 (Clean)

Company:	**Outer Dowsing Offshore Wind**	Asset:	**Whole Asset**
Project:	**Whole Wind Farm**	Sub Project/Package:	Whole Asset
Document Title or Description:	Appendix 24.3 Flood Risk Assessment: Onshore Substation (Part 2 of 2)		
Internal Document Number:	PP1-ODOW-DEV-CS-REP-0196_04	3rd Party Doc No (If applicable):	N/A

Rev No.	Date	Status / Reason for Issue	Author	Checked by	Reviewed by	Approved by
1.0	March 2024	DCO Application	SLR	GoBe	Shepherd and Wedderburn	Outer Dowsing
2.0	June 2024	Response to Section 51 Advice	SLR	Outer Dowsing	Shepherd and Wedderburn	Outer Dowsing
3.0	September 2024	Procedural Deadline 19th September	SLR	Outer Dowsing	Shepherd and Wedderburn	Outer Dowsing
4.0	February 2025	Examination Deadline 4	SLR	Outer Dowsing	Shepherd and Wedderburn	Outer Dowsing

Appendix B Sensitivity Analysis Maps – Peak Results

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 77

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Sensitivity Analysis Grid Size 14m Maximum Flood Depths 1:1000yr+CC Overtopping Baseline Scenario

Scale	Version	Date
A3	2.0	June 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

0 1 2 km

Figure No. 78

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Sensitivity Analysis Grid Size 6m Maximum Flood Depths 1:1000yr+CC Overtopping Baseline Scenario

Scale	Version	Date
A3	2.0	June 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

0 1 2 km

Figure No. 79

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Sensitivity Analysis
Manning's Roughness -20%
Maximum Flood Depths
1:1000yr+CC Overtopping
Baseline Scenario

Scale	Version	Date
A3	2.0	June 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 80

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Sensitivity Analysis
Manning's Roughness +20%
Maximum Flood Depths
1:1000yr+CC Overtopping
Baseline Scenario

Scale	Version	Date
A3	2.0	June 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

0 1 2 km

Figure No. 81

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Sensitivity Analysis H++ Climate Change Allowances Maximum Flood Depths 1:1000yr Overtopping Baseline Scenario

Scale	Version	Date
A3	2.0	June 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

0 1 2 km

Figure No. 82

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Sensitivity Analysis H++ Climate Change Allowances Maximum Flood Depths 1:200yr Overtopping Baseline Scenario

Scale	Version	Date
A3	2.0	June 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

0 1 2 km

Figure No. 83

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Sensitivity Analysis H++ Climate Change Allowances Maximum Flood Depths 1:1000yr North Breach 2 Baseline Scenario

Scale	Version	Date
A3	2.0	June 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

0 1 2 km

Figure No. 84

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Sensitivity Analysis H++ Climate Change Allowances Maximum Flood Depths 1:200yr North Breach 2 Baseline Scenario

Scale	Version	Date
A3	2.0	June 2024

SLR Project Number: 410.V05356.00013

Appendix C Technical Memorandum

Technical Memorandum

To:	Heather Tysoe	**From:**	Katrina Riches / George Frisby
Company:	Environment Agency		**SLR Consulting Limited**
cc:		**Date:**	21 August 2023
		Project No.	410.V05356.00013

RE: Outer Dowsing Offshore Windfarm Onshore Substation FRA
River Welland Breach Modelling

This technical note aims to outline the approach SLR propose to take with regard to breach and overtopping modelling for the Onshore Substation for Outer Dowsing Offshore Wind Farm.

A data request was submitted to the Environment Agency for model data relating to the proposed onshore cable route and substation search areas for Outer Dowsing Offshore Windfarm (ODOW). 2010 NTM Breach and Overtopping data was received with regard to scenarios for coastal areas and for the tidal reach of the River Welland.

Upon review it was evident that the data at the southern extent of the information provided, to the north and south of the River Welland, there were some issues and inconsistency in the data provided:

- north of the River Welland the flood model data is a lot coarser than the rest of the area provided, and interrogation of depth data only provides integer values such as '0', '1' or '2' ; and
- south of the River Welland the 1 in 200_CC2115_Depth and 1 in 1000_CC2115 Depth data seem to have the exact same extent and depths in certain areas.

The Environment Agency have reviewed these points and confirmed that they are aware of some issues in the modelling in certain locations, including the areas highlighted above. The Environment Agency are planning to update the existing modelling however no improvement on the data provided is currently available.

The Environment Agency have recommended that breach and overtopping analysis is carried out to ensure that the proposed design datums are sufficient to ensure that the proposed substation remains operational for the 0.1% annual exceedance probability scenario plus an allowance for climate change. Modelling completed by SLR will also ensure that breaches can be located at the critical locations.

The Environment Agency have provided guidelines for undertaking breach modelling which are appended to this note (Environment Agency, Anglian Region, Northern Area Requirements for Hazard Mapping, Version 8, Jan 2014).

1.0 Proposed Breach Modelling Criteria

1.1 Hydrology

- The shape of the astronomical tidal curves to be used in the modelling were taken from Environment Agency Flood Risk Mapping and Data Management: Anglian

Region Report (2016). These have been scaled to fit gauged water levels at Fosdyke Bridge.

- These tidal curves have been scaled to fit the extreme water levels at Fosdyke Bridge (CFB conditions for the UK 2018 for 'Location: ESTURY_RiverWELLAND Chainage: _3992_5).
- Climate change allowances for the sea level has been calculated from a base year of 2018 using the current guidance from EA for the Anglian Region for Upper End scenario (Flood risk assessments climate change allowances).
- Resultant Peak Tidal Levels at Fosdyke Bridge are summarised below:

AEP%	EA Report (m)	CFB (m)	CFB (97.5%confidence levels)
0.5%	5.99	5.98	6.38
0.1%	6.69	6.29	6.97
0.5%+CC	7.13	6.68	7.08
0.1%+CC	7.83	6.99	7.67

Climate change allowances
2018 – 2035 – 17yrs x 7mm = 119mm
2036 – 2065 = 339mm
2066 – 2080 – 15yrs x 15.8 = 237mm

Total sea level rise (2018-2080) = ***695mm***

Full head time (HT) boundary conditions can be found in the accompanying excel sheet.

1.2 Hydraulic Modelling

- Proposed southern and northern breach locations along the River Welland have been located at critical locations along the primary flood defences, which will allow for worst case flood events to the proposed sub station site option search areas. These locations have high levels of hydraulic connectivity to the sites due to proximity and existing watercourses, which also being downstream for the River Glen and Welland confluence and therefore close enough to the location of estuarine extreme water levels. (Fosdyke Bridge). The Breach locations are attached in the accompanying shapefiles and pdf.
- Modelling will be completed using 2D TUFLOW software with a grid size of 10m. Use of HPC and SGS to allow for underlying 1m LiDAR to be taken into account.
- LiDAR Composite DTM (1m 2022) will be used. (example tile: LIDAR-DTM-1m-2022-TF22nw)
- The heights of riverbank defenses in the River Welland study area are defined by a series of ZSH polylines in the TUFLOW 2D domain.
- A Head Time boundary on the River Welland will apply the coastal level in the watercourse channel.
- The flood plain model extent to extend significantly far from the site for no effects and all relevant flow paths to be modelled.

- The crest elevations used for the defences to be obtained from 'EA Spatial Flood Defences Including Standardised Attributes' layer and cross referenced against LiDAR.
- Breach of flood defences will be represented in TUFLOW using variable shape files.
- Breach criteria (as per EA guidance):
  - Ground level behind defence extracted to Lidar
  - Breach width = 50m
  - Breach duration 70hr
- The 0.1%+CC event peak water level is higher than the current crest level of the embankment. Therefore, for this event the embankment will be raised in the model to a suitable height so that the peak water level in the River Welland does not overtop the flood embankment.
- Hazard, Depth and Velocity Mapping, along with Flood Depth Progression and Sensitivity Testing will be completed in line with the EA guidance.
- Results will be reported in a suitable modelling report.
- All events to be modelled with a base date of 2006 for present day.

2.0 Proposed Overtopping Modelling Criteria

In email correspondence with Heather Tysoe on 4th August 2023, the Environment Agency have stated that *"With regards to overtopping, the Environment Agency will seek to raise flood defences in line with the climate change levels, however it is important to assess the potential depths which may occur from overtopping, should the defence heights remain unchanged".*

It is therefore proposed that overtopping modelling will also be undertaken to address the effect of inundation with regard to finished floor levels of the substations. Only the 0.1% AEP+CC event has estimated levels higher than the current defence crest levels. Overtopping modelling can be completed for this event for the River Welland for the reach from the Fosdyke bridge to such a point upstream where the Flood Defence crest levels are higher than the peak water level. The overtopping would be simulated fully in the 2D domain with both north and south defence embankments being overtopped simultaneously.

3.0 Climate Change Allowances

As detailed in Section 1.1, the climate change allowances have been calculated using the guidance for the Anglian Region for the Upper End scenario.

In email correspondence with Heather Tysoe on the 4th August 2023, the Environment Agency have stated that *"The following climate change guidance (section titled Assessing credible maximum scenarios for nationally significant infrastructure projects, new settlements or urban extensions) suggests that for an NSIP, the H++ climate change allowances should be applied."*

It is understood that the H++ climate change allowances should be applied as a sensitivity test to *"help assess how sensitive your proposal is to changes in the climate for different future scenarios. This will help to ensure your development can be adapted to large-scale climate change over its lifetime".* It is therefore proposed that the Upper End scenario is used to assess the design level for the onshore substation, however a sensitivity test using the H++ climate change allowance will be included as part of the assessment. It would be grateful if we could receive clarity that this approach is correct.

Outer Dowsing Offshore Windfarm
River Welland Breach Modelling

Appendix D Environment Agency Letter

Ms Katrina Riches
Senior Hydrologist
SLR Consulting
Manchester House 86 (Third Floor)
Princess Street
Manchester
M1 6NG

Our ref: AN/2023/134856/04-L01
Your ref: EN010130-000032-220802

Date: 10 December 2024

Dear Katrina

Construction of the Outer Dowsing Offshore Wind Farm
River Welland Breach Model – 3rd Review Response

Thank you for submitting the updated River Welland breach analysis for review.

We have reviewed the information provided and we are satisfied that our previous comments have been addressed. The model is now considered to be fit for purpose in relation to assessing flood risk mitigation requirements for the Onshore Substation. Please see the attached Model Review Response sheet for further information.

We look forward to receiving the additional modelling in relation to the potential 3rd party impacts, which you are undertaking to align with the national planning policy, 75-year timeframe requirement.

Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me at the number below.

Yours sincerely

Annette Hewitson
Principal Planning Adviser

[redacted]

Enc: Hydraulic Model Review 3rd Response spreadsheet

Appendix E 75-year lifetime Technical Addendum

Appendix E: Technical Addendum to Annex 1: River Welland Breach Modelling Report (document reference 6.3.24.3) – 75 year lifetime

Date: February 2025

SLR Project No.: 410.V05356.00013

Revision: V1.0

Prepared by: SLR Consulting Limited

1.0 Introduction

1. The purpose of this technical addendum is to present the hydraulic modelling results for the consideration of a 75-year lifetime for the proposed Outer Dowsing Offshore Wind (ODOW) Onshore Substation (OnSS). This additional modelling has been undertaken due to comments received from the Environment Agency requesting for the assessment of the scenario of the raised platform and OnSS remaining in place beyond 2065 and in particular the impact this could have on 3rd parties in relation to flood hazard, following the additional years of allowances for climate change.
2. This document presents the adjustment of the hydraulic modelling boundaries, modelling results, and analysis to account for the consideration of the 75 year lifetime of development. The River Welland Breach Modelling Report (document reference 6.3.24.3 Annex 1) documents the modelling methodology and parameterisation and should be referred to for any other details of the model.

2.0 Modelling Updates and Results

2.1 Hydraulic Boundaries

3. The boundary condition applied to the TUFLOW model was a Head-Time (HT) boundary placed across the River Welland at Fosdyke Bridge. This boundary is used to assign the tidal curves for the 1 in 200 annual chance (0.5% Annual Exceedance Probability (AEP)), 1 in 1,000 annual chance (0.1% AEP), 1 in 200 annual chance (0.5% AEP) plus an allowance for climate change and 1 in 1,000 annual chance (0.1% AEP) plus an allowance for climate change events.
4. Previous studies commissioned by the Environment Agency show coastal flooding to be the critical flood mechanism for this area of The Fens. This is considered mutually exclusive from fluvial flooding, as the same conditions that generate peak coastal flooding levels on this section of coastline are not thought to be linked with storm conditions which will generate large fluvial floods. Therefore, this study focuses solely on coastal / tidal flooding mechanisms.
5. The shape of the astronomical tidal curves used in the modelling were taken from the 2011 Hyder River Welland Hydraulic modelling report1. CFB 97.5% confidence levels have been selected to minimise the uncertainty. These tidal curves have then been

[1] April 2011, Hyder/Environment Agency: Strategic Flood Risk Management Framework Tidal Nene and Tidal Welland Hazard Mapping Hydraulic Modelling Report

scaled to fit the extreme water levels estimated at Fosdyke Bridge2 (CFB conditions for the UK 2018 for 'Location: ESTURY_RiverWELLAND Chainage: _3992_5).

6. A normal depth boundary condition (HQ) has been used at the upstream end of the River Welland to avoid glass walling across the river. The location of the 2D boundary condition (2d_bc) differs between overtopping and breach scenarios due to the different model boundaries (2d_code) used in each scenario.
7. Climate change allowances for sea level rise have been calculated from a base year of 2018 using the current Guidance from the EA for the Anglian Region for the Upper End Scenario (Flood risk assessments climate change allowances). A lifetime of 75 years has been considered (from 2030) and therefore climate change allowances up to 2105 have been calculated.
8. Resultant peak tidal levels at Fosdyke Bridge for the 75 year lifetime are summarised below in Table 2-1.

Table 2-1: Summary of Peak Tidal Levels at Fosdyke Bridge

AEP %	EA Report[3] (m)	CFB (m)	CFB (97.5% confidence levels)
1:200 (0.5% AEP)	5.99	5.98	6.38
1:200 (0.5% AEP) + CC UE	7.13	6.44	7.49
1:200 (0.5% AEP) + CC HC	-	-	7.22
1:1000 (0.1% AEP)	6.69	6.29	6.97
1:1000 (0.1% AEP) + CC UE	7.83	6.75	8.08
1:1000 (0.1% AEP) + CC HC	-	-	7.81

Climate change allowances:

(HC) Higher Central total cumulative sea level rise (2018-2105) = 838mm

(UE) Upper End total cumulative sea level rise (2018-2105) = 1113mm

3.0 Model Results

9. Maximum flood extents and depths, and hazard rating results for the areas on and surrounding the site are presented in Appendix A of this Technical Addendum.

3.1 Scenarios and Events

10. The peak flood extents for the overtopping baseline scenario show flood water reaches the site for all the scenarios presented in Table 2-1 with the exception of the (0.5% AEP) + CC Higher Central (HC) event. The flood extent for the (0.5% AEP) + CC HC event is contained within the channel immediately north of the site.
11. The peak flood extents for both breach events under baseline conditions show significant flooding at the site, which is summarised in Table 31 and Table 3-3 below. The A16 road plays a significant role in controlling flood depths around the site area, acting as an obstruction to flow, holding water between the river and the road.

[2] 2018, Environment Agency: Coastal Flood Boundary Extreme Sea Levels
[3] April 2011, Hyder/Environment Agency: Strategic Flood Risk Management Framework Tidal Nene and Tidal Welland Hazard Mapping Hydraulic Modelling Report

12. Under the proposed conditions, the OnSS remains free from flooding from all assessed scenarios for overtopping. For breach 1 and 2 all events show flooding of the OnSS, with the exception of the 0.5% AEP + CC HC scenario which remains flood free. The depth of flooding in the proposed scenarios range from 38mm to 149mm.
13. The peak flood levels and depths on site for baseline and proposed scenarios are provided in Table 31 to Table 3-4 below.

Table 31: Baseline Peak Water Levels across the Site

Maximum Flood Levels (m AOD)	Overtopping	Breach 1	Breach 2
1:200 (0.5% AEP) + CC UE	3.623	4.235	4.288
1:200 (0.5% AEP) + CC HC	-	4.141	4.197
1:1000 (0.1% AEP) + CC UE	3.847	4.289	4.328
1:1000 (0.1% AEP) + CC HC	3.704	4.236	4.290

Table 3-2: Proposed Peak Water Levels across the Site

Maximum Flood Levels (m AOD)	Overtopping	Breach 1	Breach 2
1:200 (0.5% AEP) + CC UE	-	4.238	4.315
1:200 (0.5% AEP) + CC HC	-	-	4.269
1:1000 (0.1% AEP) + CC UE	-	4.290	4.349
1:1000 (0.1% AEP) + CC HC	-	4.241	4.315

Table 3-3: Baseline Peak Water Depths across the Site

Maximum Flood Depths (m)	Overtopping	Breach 1	Breach 2
1:200 (0.5% AEP) + CC UE	0.062	0.842	0.884
1:200 (0.5% AEP) + CC HC	-	0.750	0.790
1:1000 (0.1% AEP) + CC UE	0.405	0.898	0.925
1:1000 (0.1% AEP) + CC HC	0.154	0.843	0.866

Table 3-4: Proposed Peak Water Depths across the Site

Maximum Flood Levels (m AOD)	Overtopping	Breach 1	Breach 2
1:200 (0.5% AEP) + CC UE	-	0.038	0.115
1:200 (0.5% AEP) + CC HC	-	-	0.069
1:1000 (0.1% AEP) + CC UE	-	0.090	0.149
1:1000 (0.1% AEP) + CC HC	-	0.041	0.115

14. The peak flood extents for the proposed and baseline conditions for all of the simulated events for overtopping and breach 1 & 2 are presented in Appendix A of this Technical Addendum. The hazard class change mapping, are also presented Appendix A.
15. The hazard class change maps show which receptors may potentially be affected by the development of the OnSS. The results demonstrate a limited change on hazard class for all simulated modelled events. The results and effect on receptors of the 75 year lifetime

scenario has been discussed further in the Onshore Substation Flood Risk Assessment (document reference 6.3.24.3 version 3)

Appendix A 75-year lifetime Figures

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 1

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Upper End) Overtopping Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

<= 0.75

0.75 - 1.25

1.25 - 2.00

> 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 2

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Upper End) Overtopping Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 3

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Higher Central) Overtopping Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

<= 0.75

0.75 - 1.25

1.25 - 2.00

> 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 4

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Higher Central) Overtopping Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 5

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Upper End) North Breach 1 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

0 1 2 km

Figure No. 6

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Upper End) North Breach 1 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 1.00 - 2.00
- 0.50 - 1.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

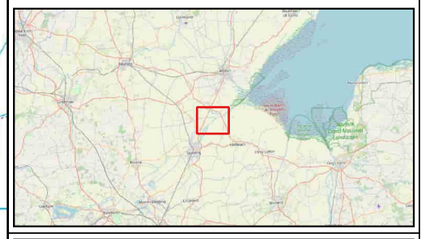


Figure No. 7

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Higher Central) North Breach 1 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 8

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Higher Central) North Breach 1 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

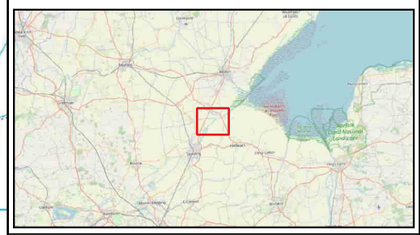
LEGEND

- Substation Search Areas
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap



0 1 2 km

Figure No. 9

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR
6 PRINCESS STREET
MANCHESTER
M1 6NG
www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Upper End) North Breach 2 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 10

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Upper End) North Breach 2 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 11

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Higher Central) North Breach 2 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

<= 0.75

0.75 - 1.25

1.25 - 2.00

> 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 12

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Higher Central) North Breach 2 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 13

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Upper End) Overtopping Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 14

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Upper End) Overtopping Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 15

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client
Outer Dowsing Offshore Wind

SLR
6 PRINCESS STREET
MANCHESTER
M1 6NG
www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Higher Central) Overtopping Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 16

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Higher Central) Overtopping Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

0 1 2 km

Figure No. 17

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client
Outer Dowsing Offshore Wind

SLR
6 PRINCESS STREET
MANCHESTER
M1 6NG
www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Upper End) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 18

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Upper End) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

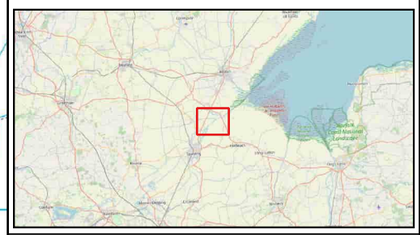
LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap



0 1 2 km

Figure No. 19

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client
Outer Dowsing Offshore Wind

SLR
6 PRINCESS STREET
MANCHESTER
M1 6NG
www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Higher Central) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

0 1 2 km

Figure No. 20

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR
6 PRINCESS STREET
MANCHESTER
M1 6NG
www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Higher Central) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 21

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Upper End) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 22

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Upper End) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 23

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:200yr+CC (Higher Central) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 24

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:200yr+CC (Higher Central) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Difference in Hazard Class

- -3
- -2
- -1
- 1
- 2
- 3

Google Satellite

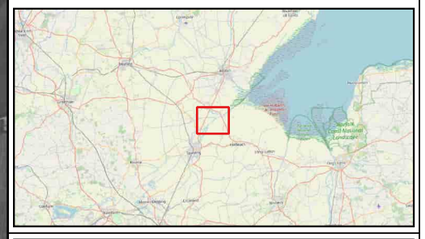


Figure No. 25

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Hazard Class Changes 1:200yr+CC (Upper End) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Difference in Hazard Class

- -3
- -2
- -1
- 1
- 2
- 3

Google Satellite

0 1 2 km

Figure No. 26

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

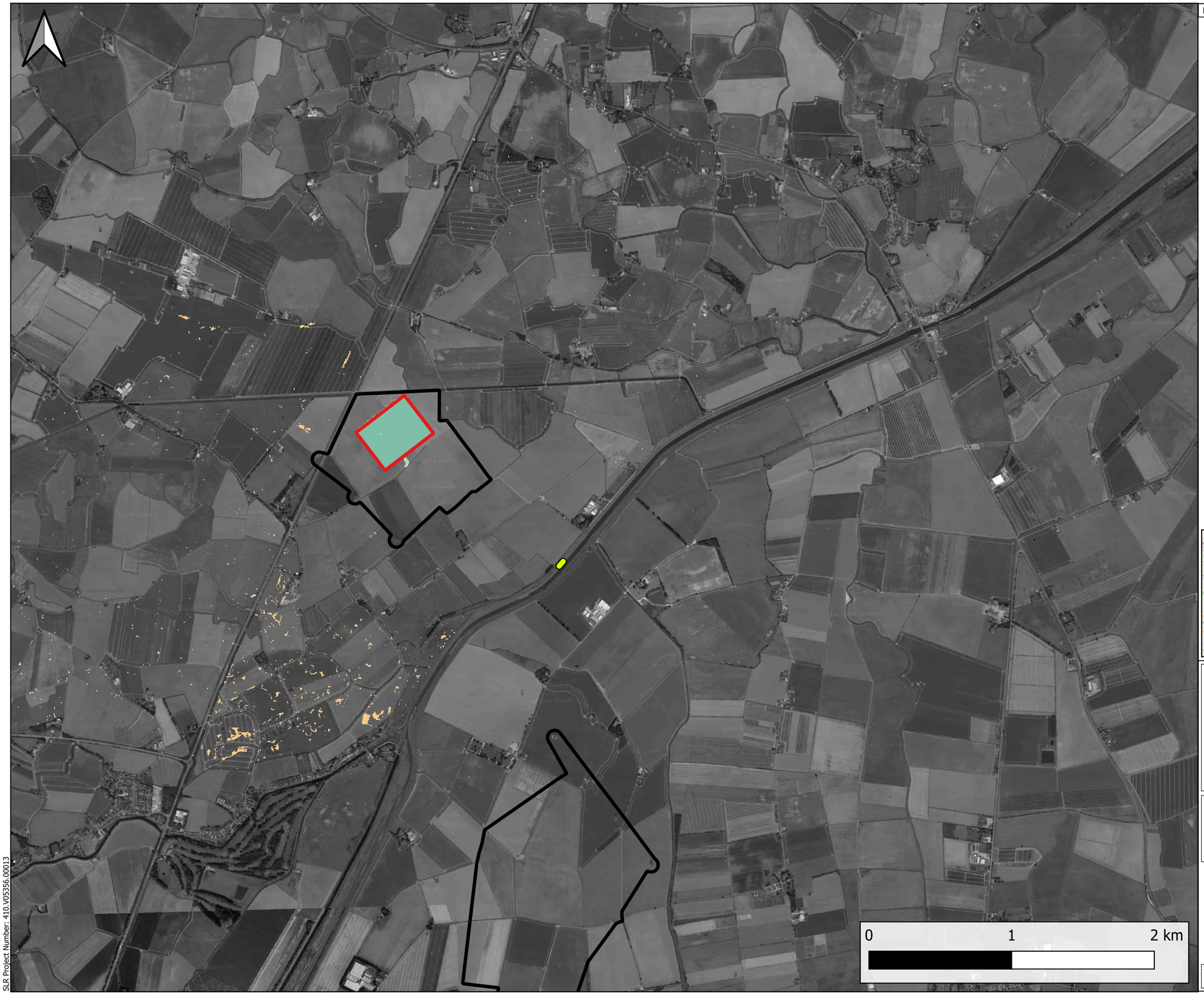
6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Hazard Class Changes 1:200yr+CC (Higher Central) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013



LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Difference in Hazard Class

- -3
- -2
- -1
- 1
- 2
- 3

Google Satellite

Figure No. 27

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Hazard Class Changes 1:200yr+CC (Upper End) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Onshore Substation Area

Breach Location

Difference in Hazard Class

-3

-2

-1

1

2

3

Google Satellite

0 1 2 km

Figure No. 28

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Hazard Class Changes 1:200yr+CC (Higher Central) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

0 1 2 km

Figure No. 29

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Upper End) Overtopping Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

0 1 2 km

Figure No. 30

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Upper End) Overtopping Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 31

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Higher Central) Overtopping Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

<= 0.75

0.75 - 1.25

1.25 - 2.00

> 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 32

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Higher Central) Overtopping Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

0 1 2 km

Figure No. 33

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client
Outer Dowsing Offshore Wind

SLR
6 PRINCESS STREET
MANCHESTER
M1 6NG
www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Upper End) North Breach 1 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

<= 0.75

0.75 - 1.25

1.25 - 2.00

> 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 34

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Upper End) North Breach 1 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

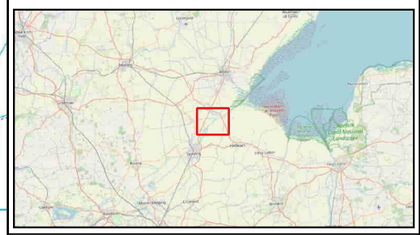


Figure No. 35

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Higher Central) North Breach 1 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

0 1 2 km

Figure No. 36

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Higher Central) North Breach 1 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 37

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Upper End) North Breach 2 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 38

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Upper End) North Breach 2 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

0 1 2 km

Figure No. 39

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Higher Central) North Breach 2 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Breach Location

Flood Hazard Rating

<= 0.75

0.75 - 1.25

1.25 - 2.00

> 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 40

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Higher Central) North Breach 2 Baseline Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

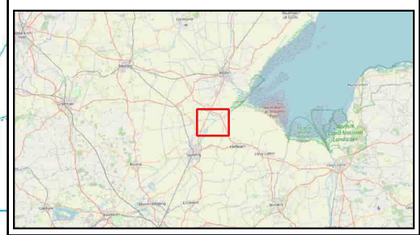


Figure No. 41

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Upper End) Overtopping Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 42

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Upper End) Overtopping Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 43

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Higher Central) Overtopping Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 44

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Higher Central) Overtopping Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

0 1 2 km

Figure No. 45

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client
Outer Dowsing Offshore Wind

SLR
6 PRINCESS STREET
MANCHESTER
M1 6NG
www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Upper End) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 46

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Upper End) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

0 1 2 km

Figure No. 47

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Higher Central) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 48

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Higher Central) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

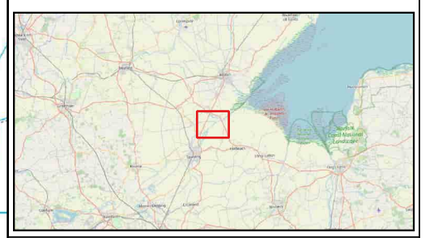


Figure No. 49

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR
6 PRINCESS STREET
MANCHESTER
M1 6NG
www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Upper End) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 50

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Upper End) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Depth (m)

- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000
Raster Basemap

Figure No. 51

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Depths 1:1000yr+CC (Higher Central) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Flood Hazard Rating

- <= 0.75
- 0.75 - 1.25
- 1.25 - 2.00
- > 2.00

Ordnance Survey(OS) 1:25000 Raster Basemap

Figure No. 52

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Maximum Flood Hazard 1:1000yr+CC (Higher Central) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Onshore Substation Area

Breach Location

Difference in Hazard Class

-3

-2

-1

1

2

3

Google Satellite

0 1 2 km

Figure No. 53

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Hazard Class Changes 1:1000yr+CC (Upper End) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Onshore Substation Area

Breach Location

Difference in Hazard Class

-3

-2

-1

1

2

3

Google Satellite

0 1 2 km

Figure No. 54

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Hazard Class Changes 1:1000yr+CC (Higher Central) North Breach 1 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Onshore Substation Area

Breach Location

Difference in Hazard Class

-3

-2

-1

1

2

3

Google Satellite

0 1 2 km

Figure No. 55

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Hazard Class Changes 1:1000yr+CC (Upper End) North Breach 2 Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013

LEGEND

Substation Search Areas

Onshore Substation Area

Breach Location

Difference in Hazard Class

-3

-2

-1

1

2

3

Google Satellite

0 1 2 km

Figure No. 56

Project

Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping (75y Life Span)

Client

Outer Dowsing Offshore Wind

SLR

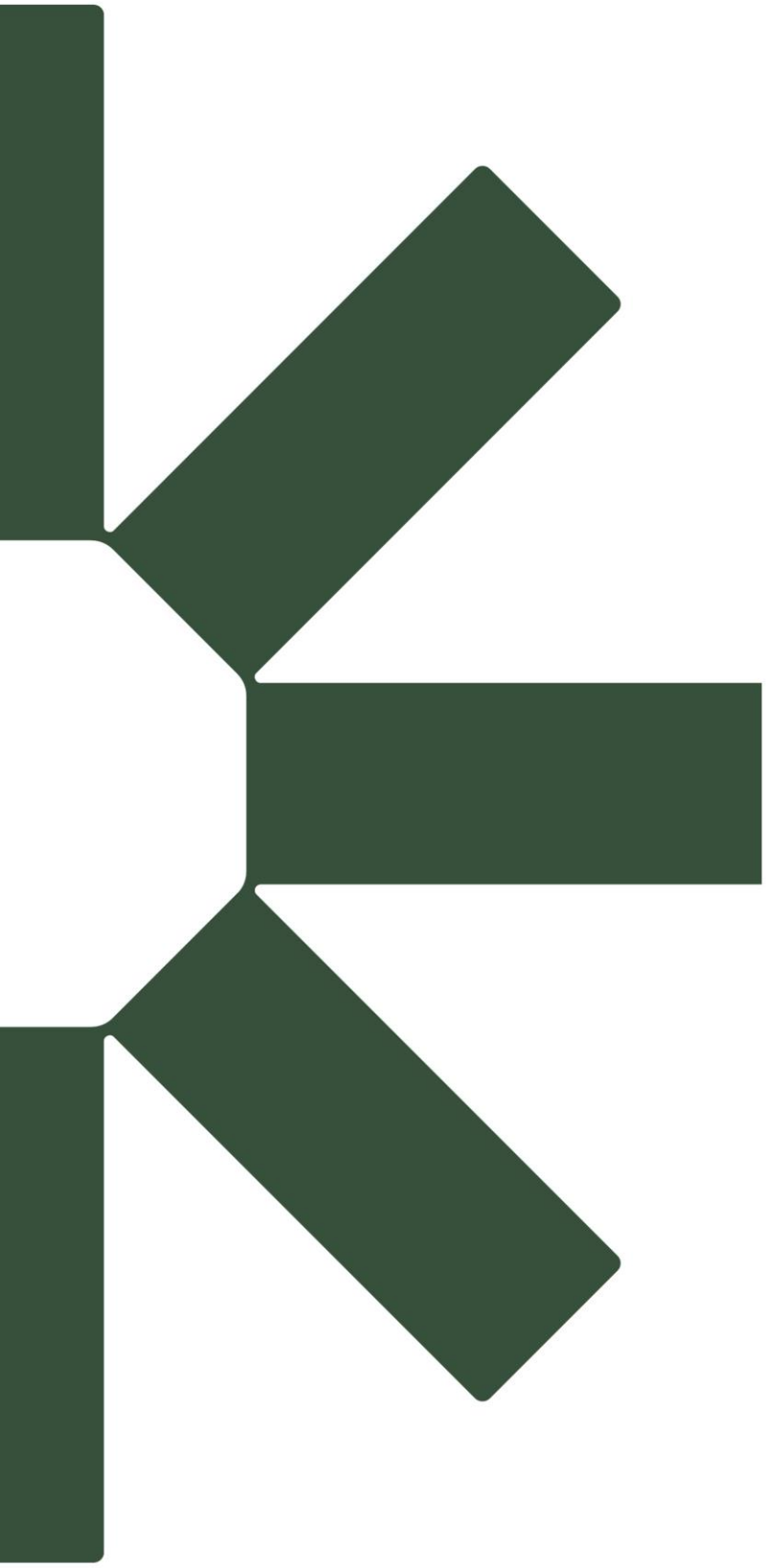
6 PRINCESS STREET
MANCHESTER
M1 6NG

www.slrconsulting.com

Hazard Class Changes
1:1000yr+CC (Higher Central)
North Breach 2
Proposed Scenario

Scale	Version	Date
A3	1.0	November 2024

SLR Project Number: 410.V05356.00013



Making Sustainability Happen