

Outer Dowsing Offshore Wind

Environmental Statement

Chapter 24 Hydrology and Flood Risk

Volume 3 Appendices

Appendix 24.3 Flood Risk Assessment: Onshore Substation P3

6 of 8

Date: July 2024

Document Reference: 6.3.24.3

Pursuant to APFP Regulation: 5(2)(a) and 5(2)(e)

Rev: 2.0

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				
Internal Document Number:		PP1-ODOW-DEV-CS-REP-0196_02		3 rd 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	July 2024	Response to Section 51 Advice	SLR	Outer Dowsing	Shepherd and Wedderburn	Outer Dowsing



LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Difference in Hazard Class

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

Google Satellite



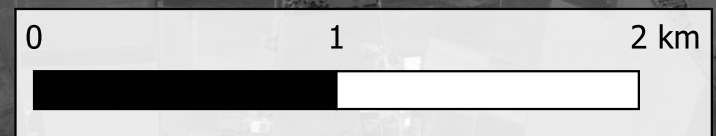
Figure No. 56

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

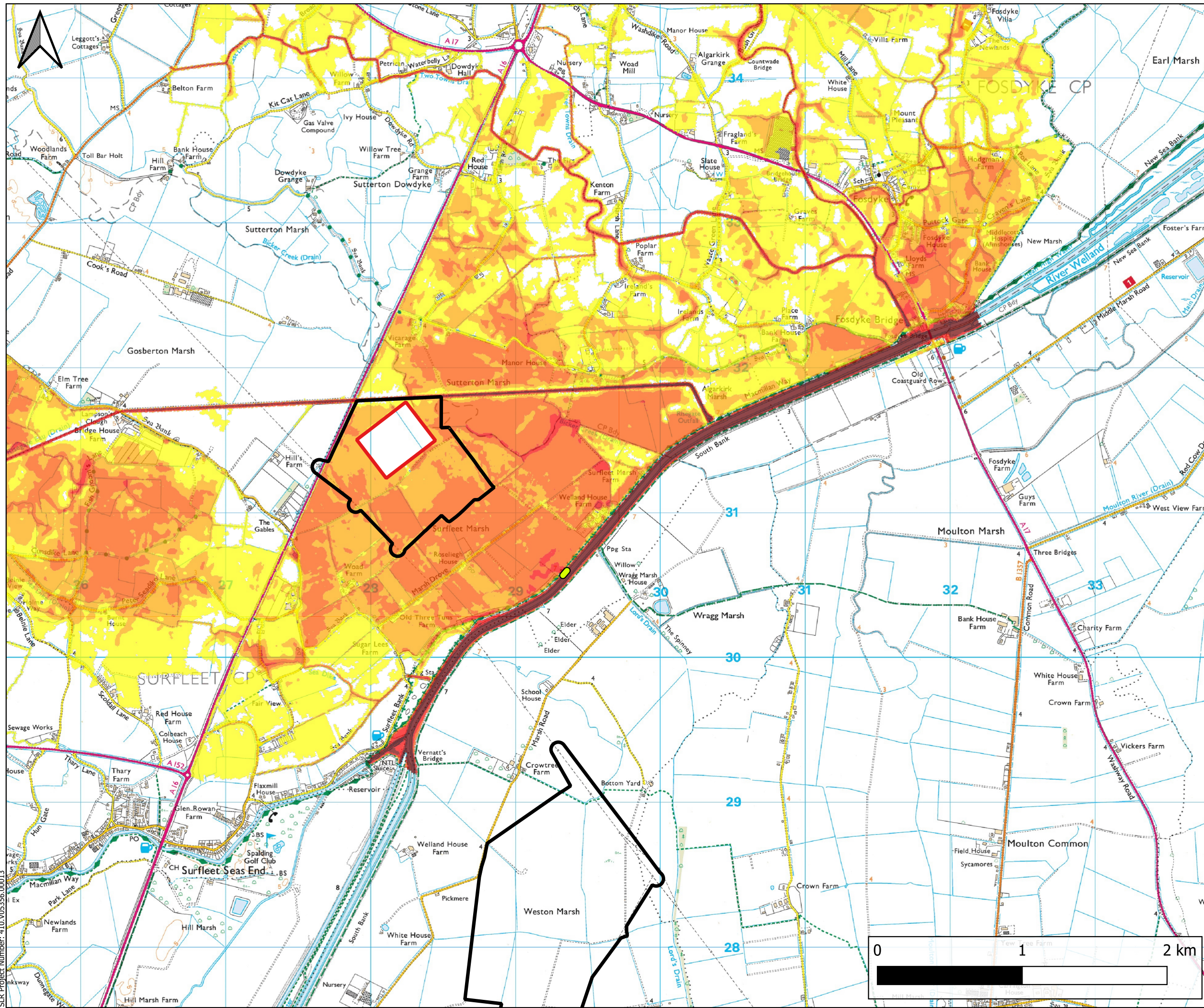


**Hazard Class Changes
 1:200yr North Breach 1
 Proposed Scenario**



Scale A3	Version 2.0	Date June 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



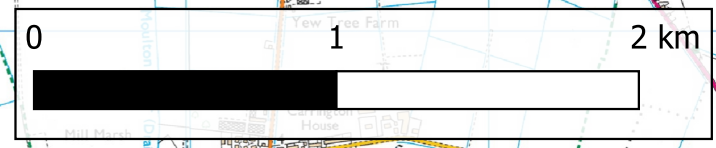
Figure No. 57

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

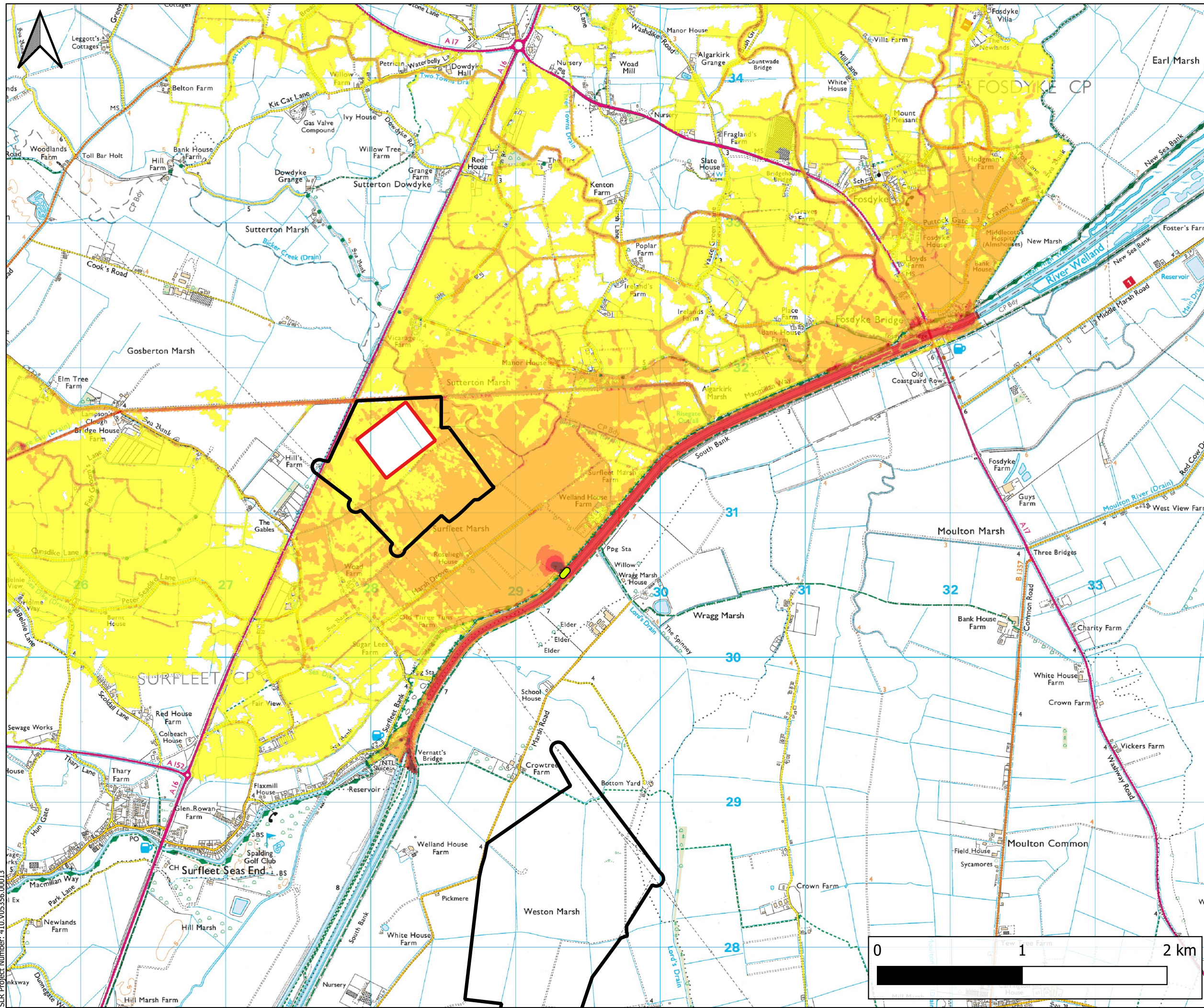


**Maximum Flood Depths
1:1000yr+CC North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 2024
-------------	----------------	-------------------

SLR Project Number: 410.V05356.00013



LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Velocity (m/s)

- 0.00 - 0.30
- 0.30 - 1.00
- 1.00 - 1.50
- 1.50 - 2.50
- > 2.50

Ordnance Survey(OS) 1:25000
Raster Basemap



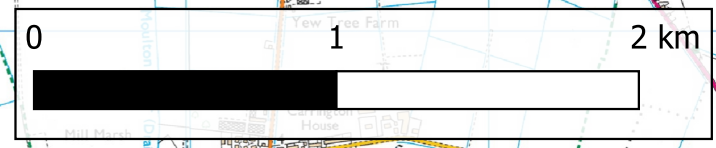
Figure No. 58

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

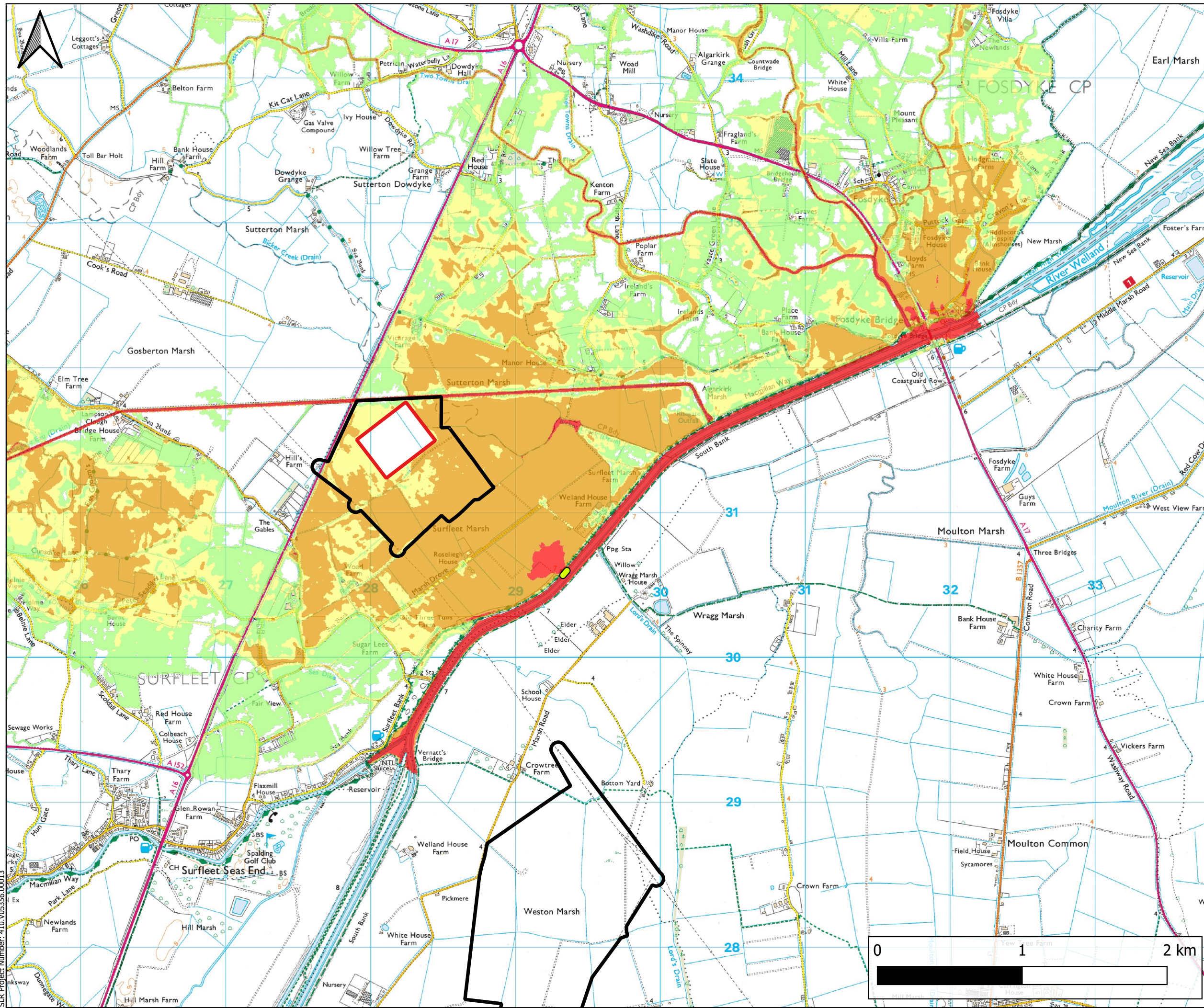


**Maximum Flood Velocity
1:1000yr+CC North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 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



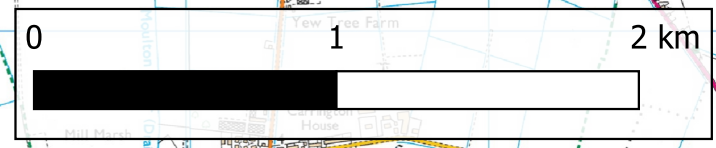
Figure No. 59

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

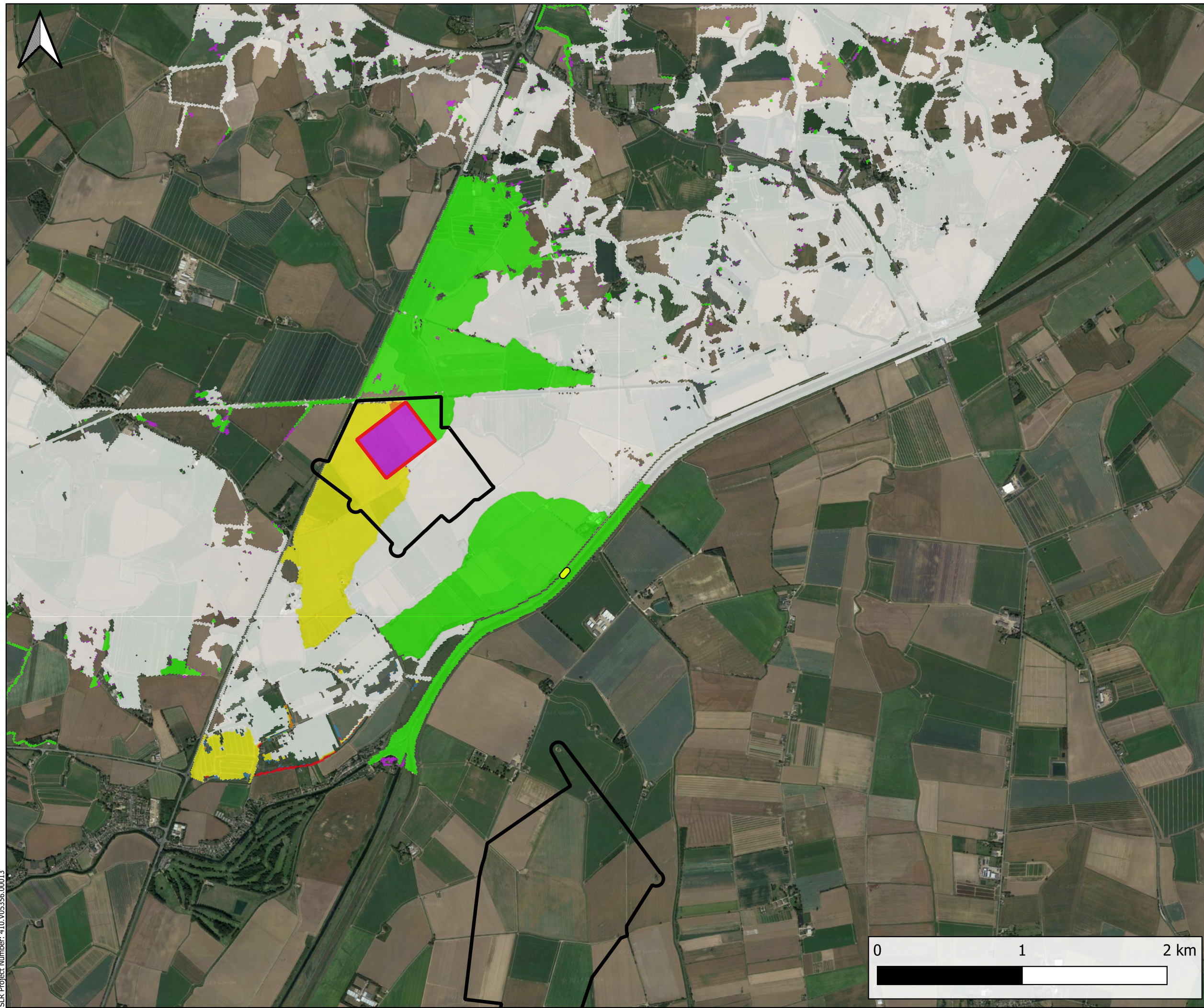


**Maximum Flood Hazard
1:1000yr+CC North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 2024
-------------	----------------	-------------------

SLR Project Number: 410.V05356.00013



LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Difference in Depth (m)

- <= -0.01
- 0.01 - 0.01
- 0.01 - 0.03
- 0.03 - 0.05
- 0.05 - 0.15

Change in Conditions

- Was wet now dry
- Was dry now wet

Google Satellite



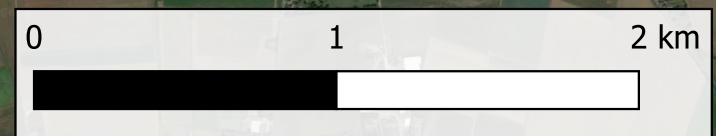
Figure No. 60

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind



**Flood Depth Difference
 1:1000yr+CC North Breach 2
 Proposed Scenario**



Scale A3	Version 2.0	Date June 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



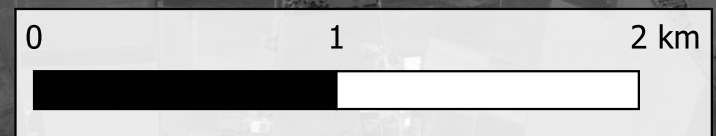
Figure No. 61

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

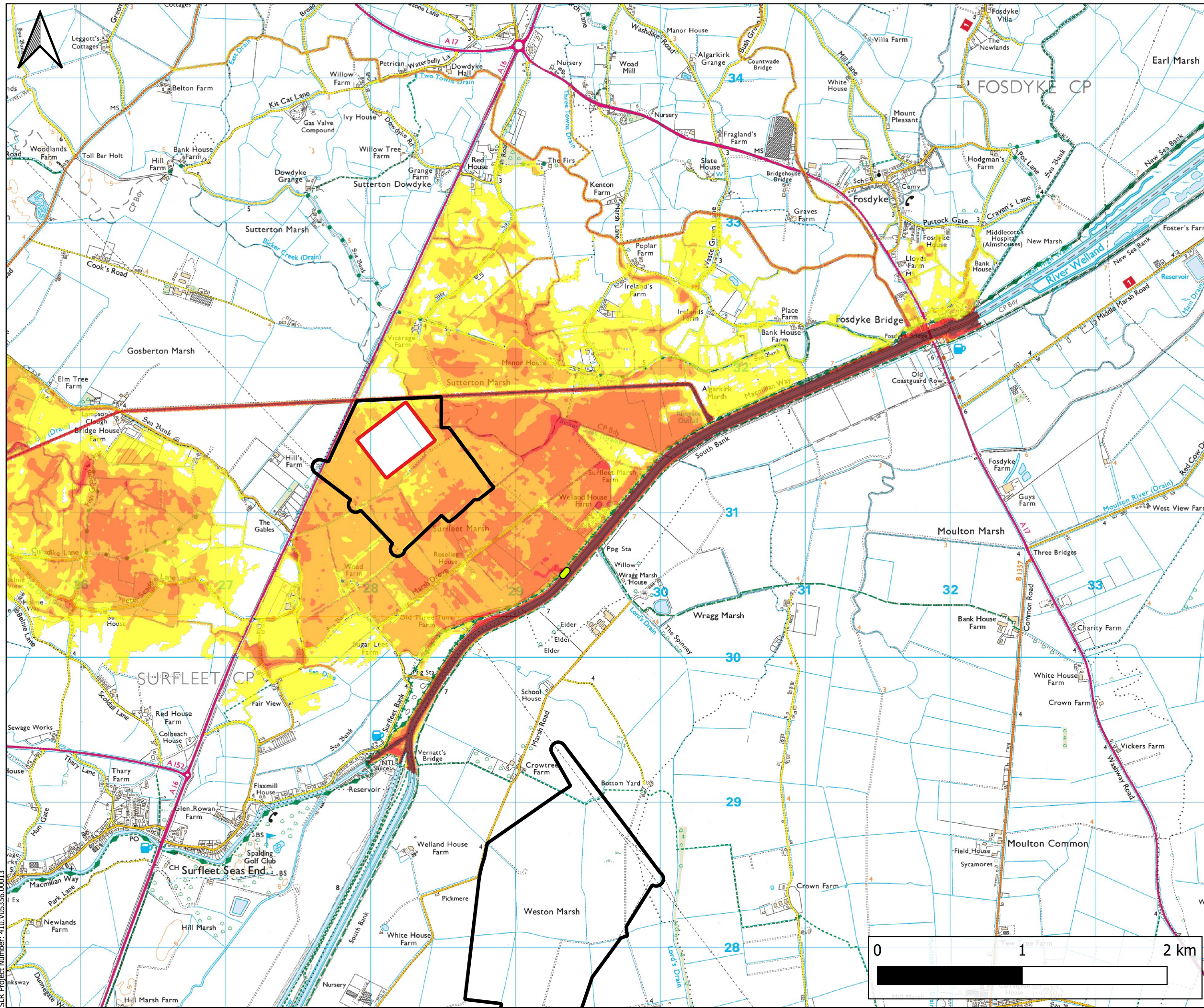


**Hazard Class Changes
 1:1000yr+CC North Breach 2
 Proposed Scenario**



Scale A3	Version 2.0	Date June 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



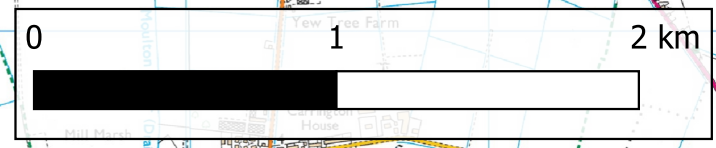
Figure No. 62

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

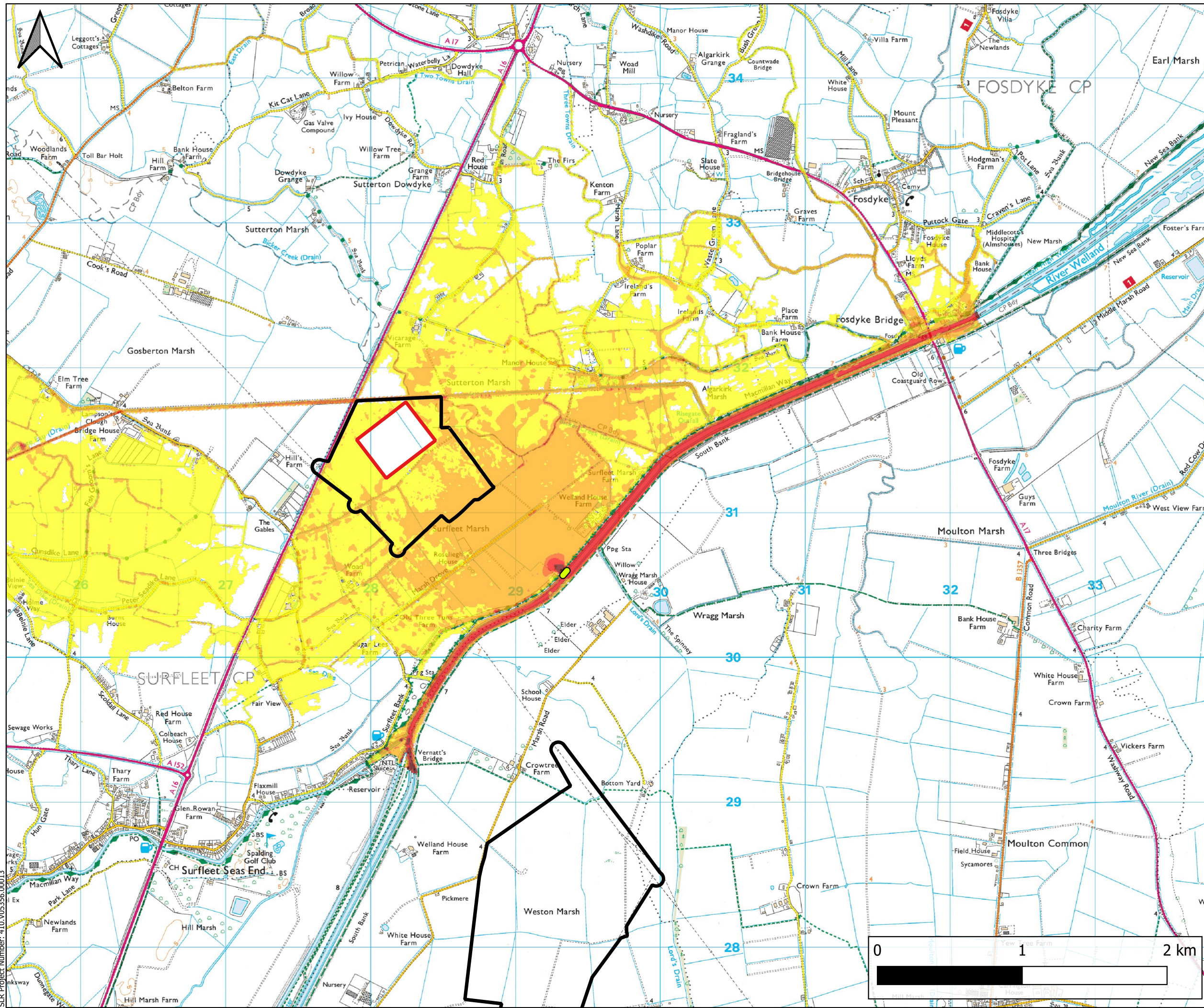


**Maximum Flood Depths
1:1000yr North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 2024
-------------	----------------	-------------------

SLR Project Number: 410.V05356.00013



LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Velocity (m/s)

- 0.00 - 0.30
- 0.30 - 1.00
- 1.00 - 1.50
- 1.50 - 2.50
- > 2.50

Ordnance Survey(OS) 1:25000
Raster Basemap



Figure No. 63

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

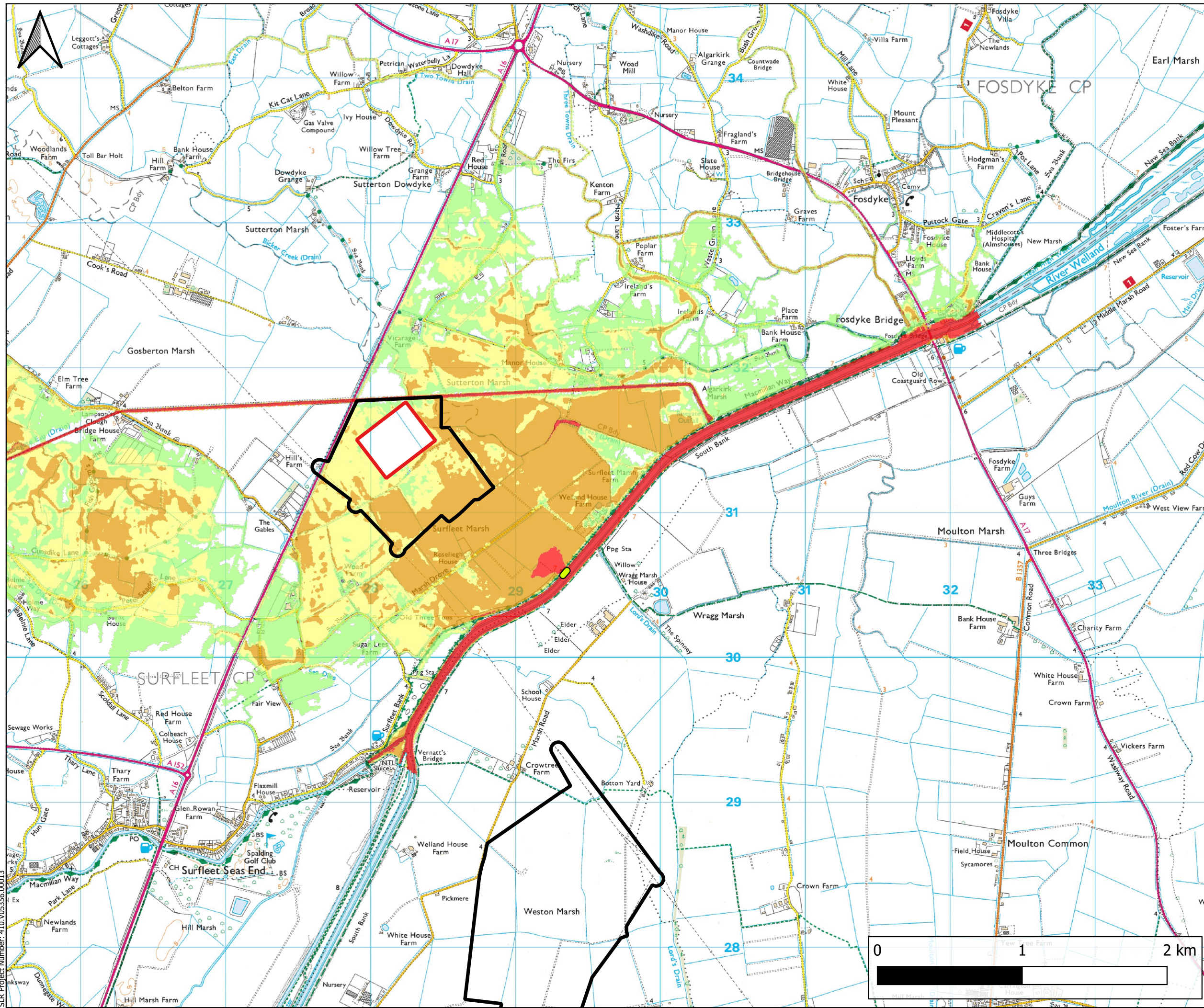
Client
Outer Dowsing Offshore Wind



**Maximum Flood Velocity
1:1000yr North Breach 2
Proposed Scenario**

Scale A3	Version 2.0	Date June 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. 64

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

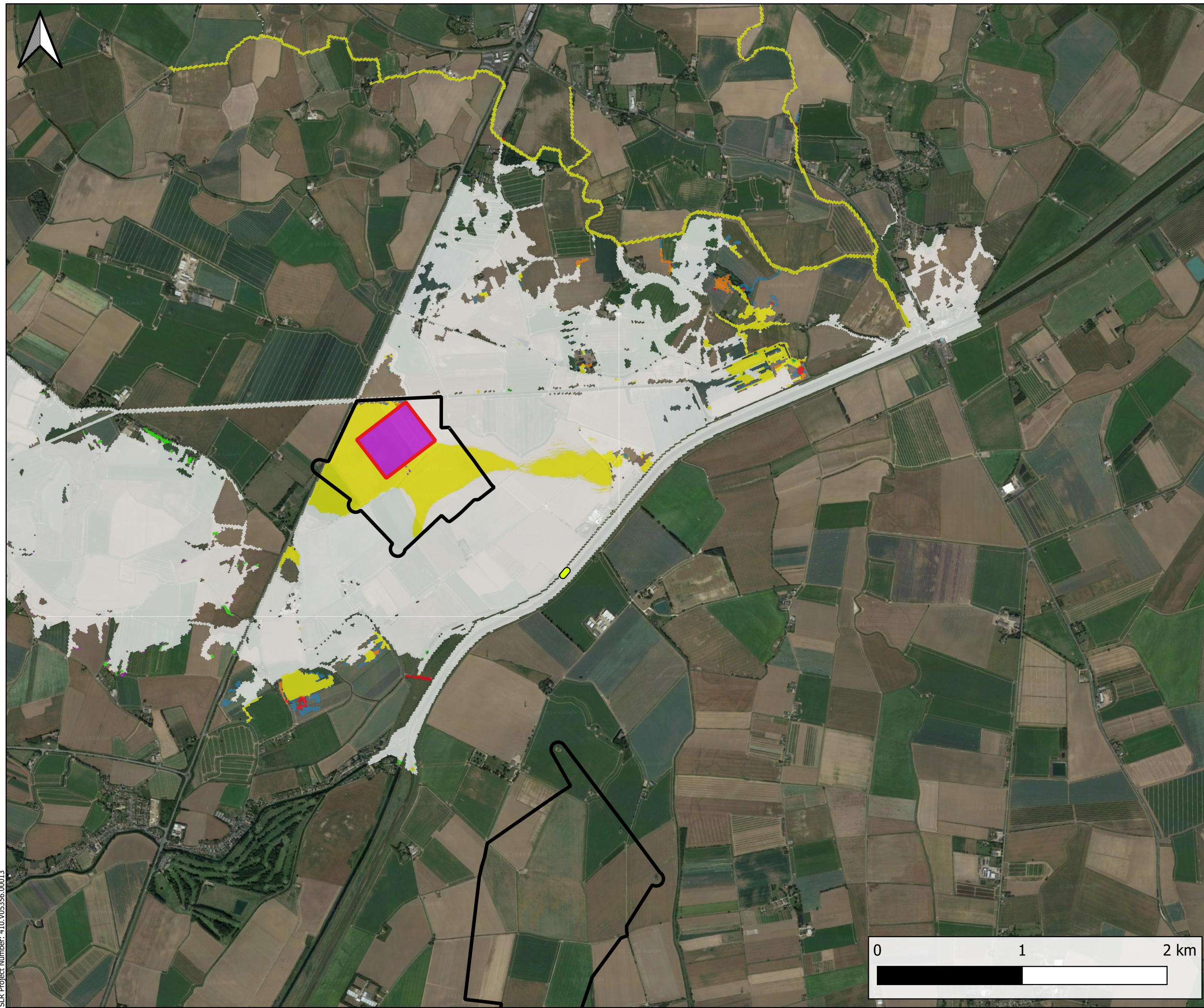


**Maximum Flood Hazard
1:1000yr North Breach 2
Proposed Scenario**






Scale A3	Version 2.0	Date June 2024
-------------	----------------	-------------------






SLR Project Number: 410.V05356.00013





LEGEND

-  Substation Search Areas
-  Onshore Substation Area
-  Breach Location

Difference in Depth (m)

-  ≤ -0.01
-  -0.01 - 0.01
-  0.01 - 0.03
-  0.03 - 0.05
-  0.05 - 0.15

Change in Conditions

-  Was wet now dry
-  Was dry now wet

Google Satellite



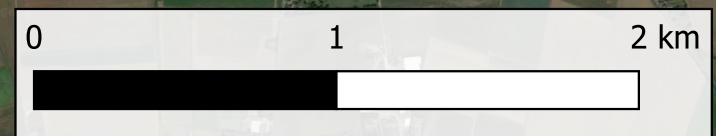
Figure No. 65

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind



**Flood Depth Difference
 1:1000yr North Breach 2
 Proposed Scenario**






Scale A3	Version 2.0	Date June 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



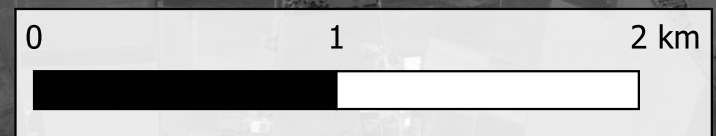
Figure No. 66

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

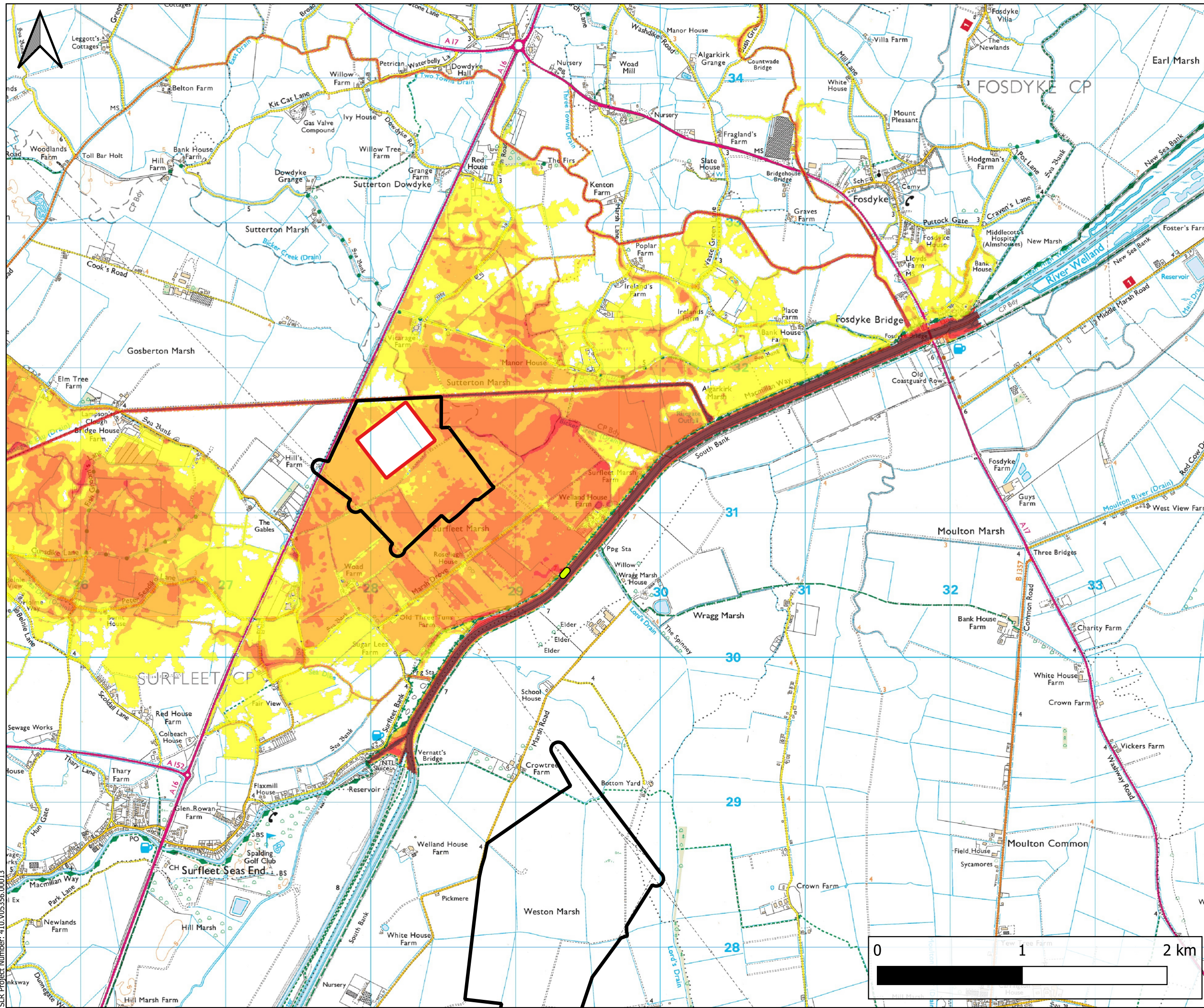


**Hazard Class Changes
 1:1000yr North Breach 2
 Proposed Scenario**



Scale A3	Version 2.0	Date June 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. 67

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

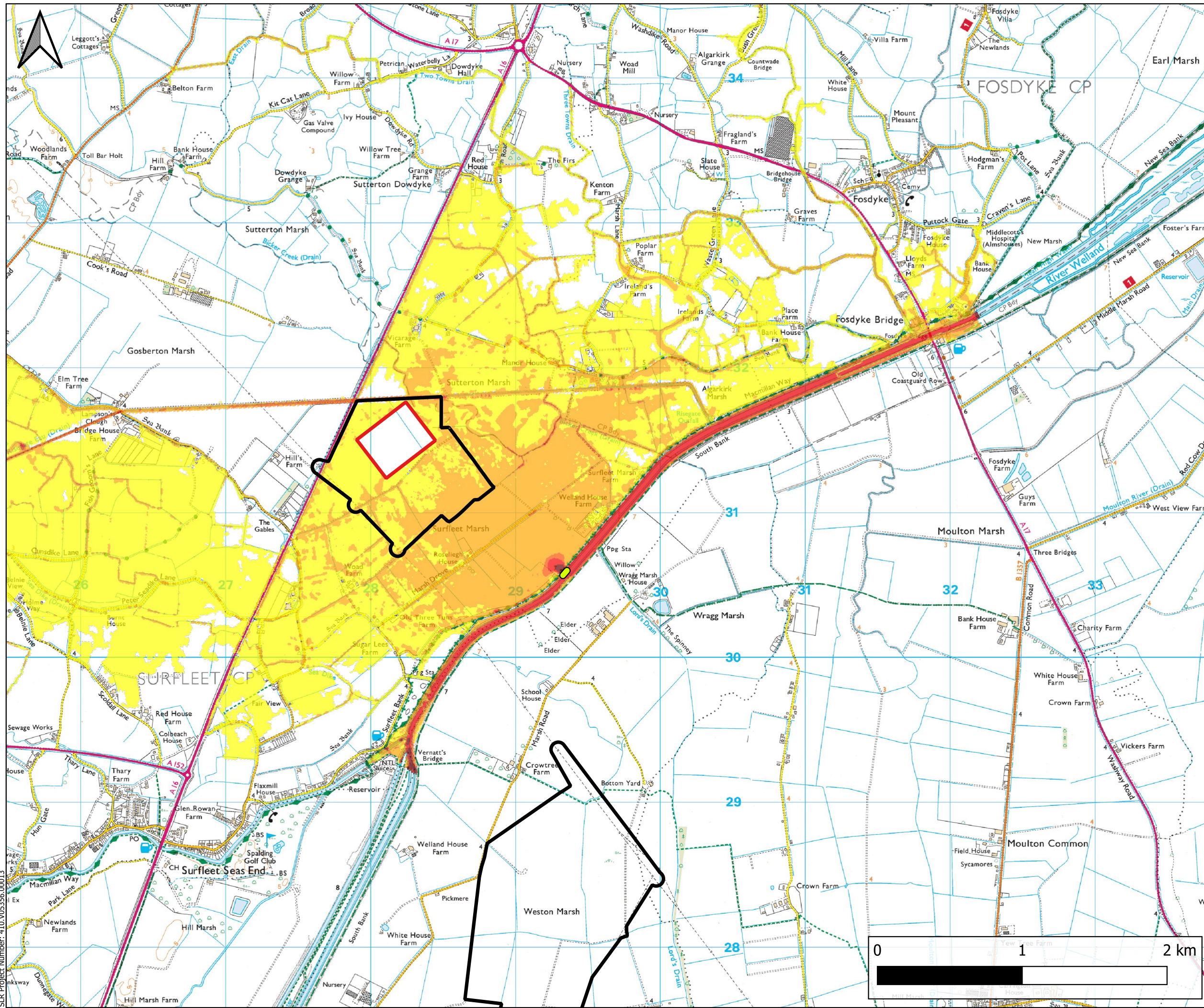


**Maximum Flood Depths
1:200yr+CC North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 2024
-------------	----------------	-------------------

SLR Project Number: 410.V05356.00013



LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Velocity (m/s)

- 0.00 - 0.30
- 0.30 - 1.00
- 1.00 - 1.50
- 1.50 - 2.50
- > 2.50

Ordnance Survey(OS) 1:25000
Raster Basemap



Figure No. 68

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

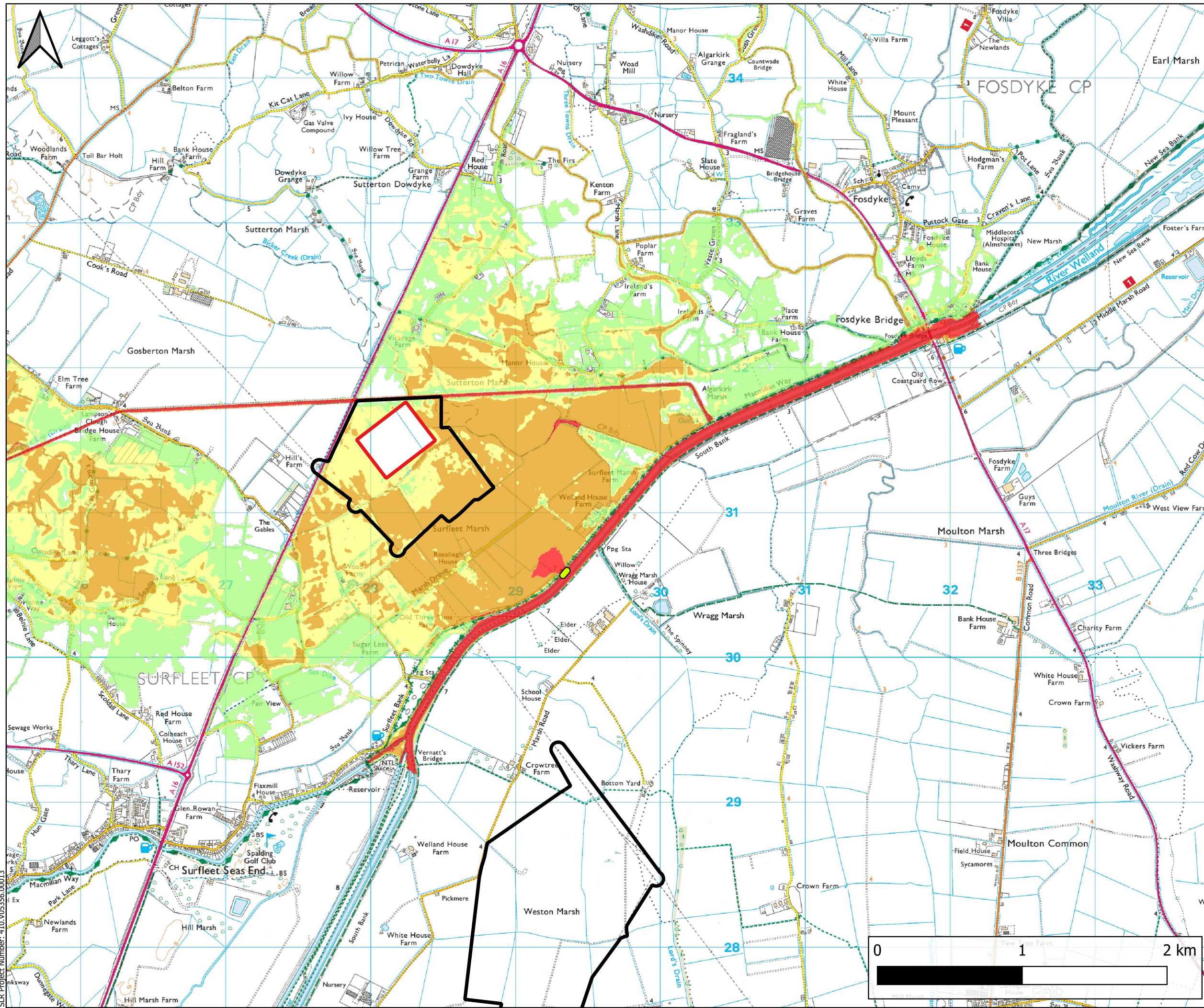


**Maximum Flood Velocity
1:200yr+CC North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 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. 69

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

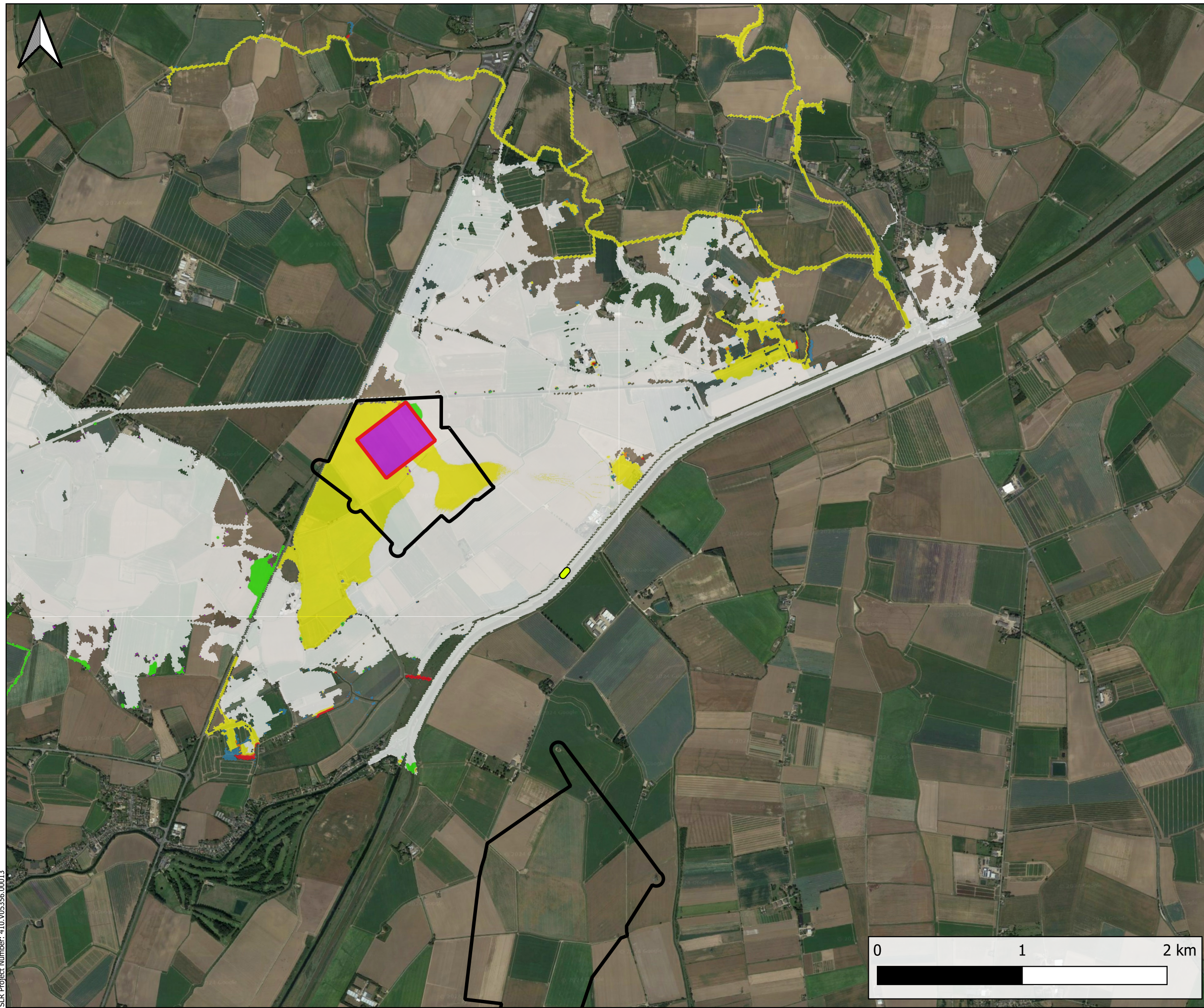


**Maximum Flood Hazard
1:200yr+CC North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 2024
-------------	----------------	-------------------

SLR Project Number: 410.V05356.00013



LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Difference in Depth (m)

- <= -0.01
- 0.01 - 0.01
- 0.01 - 0.03
- 0.03 - 0.05
- 0.05 - 0.15

Change in Conditions

- Was wet now dry
- Was dry now wet

Google Satellite



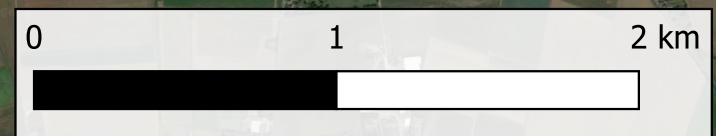
Figure No. 70

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind



**Flood Depth Difference
 1:200yr+CC North Breach 2
 Proposed Scenario**






Scale A3	Version 2.0	Date June 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. 71

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

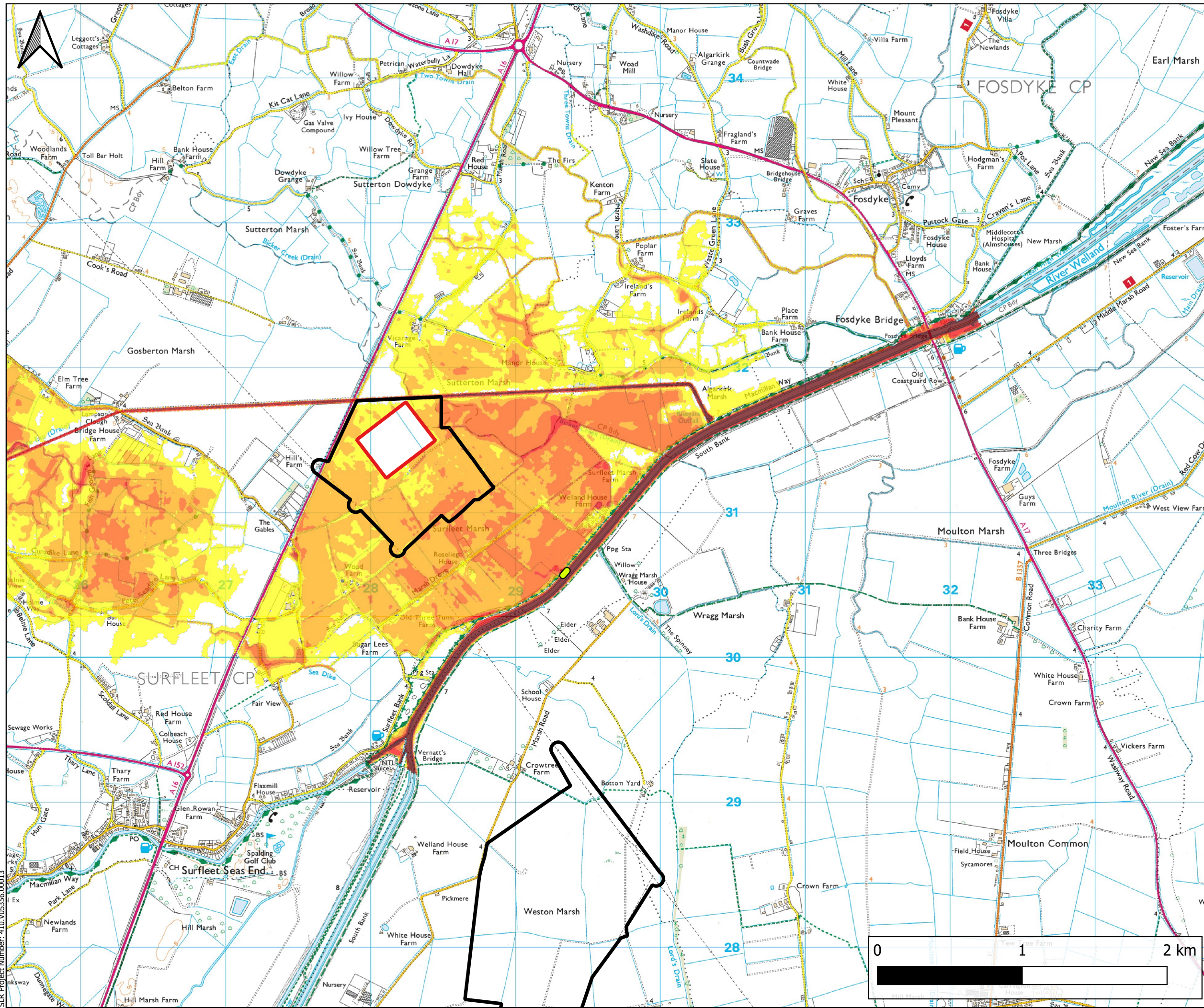
Client
Outer Dowsing Offshore Wind



**Hazard Class Changes
 1:200yr+CC North Breach 2
 Proposed Scenario**

Scale A3	Version 2.0	Date June 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. 72

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

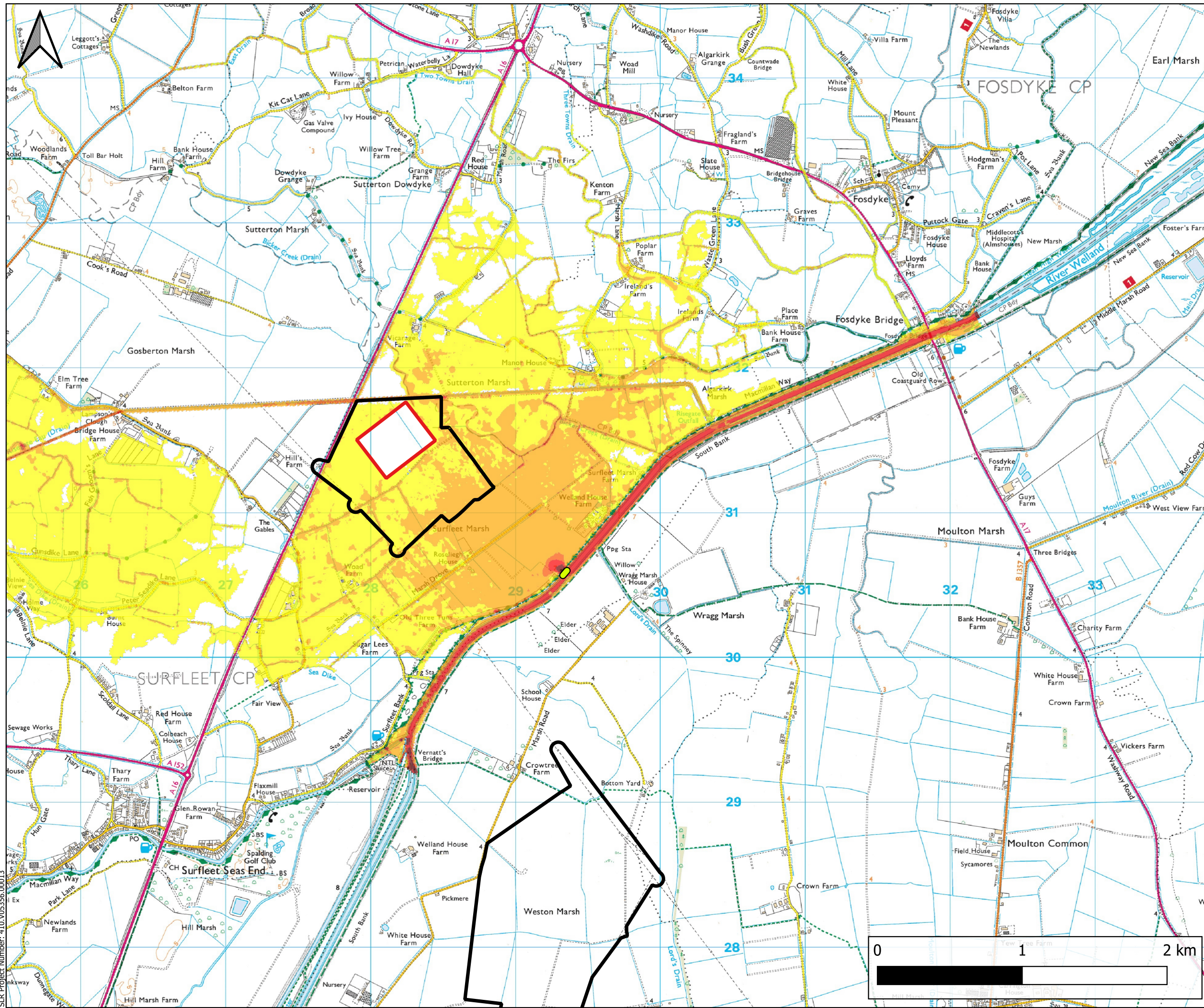


**Maximum Flood Depths
1:200yr North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 2024
-------------	----------------	-------------------

SLR Project Number: 410.V05356.00013



LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Maximum Flood Velocity (m/s)

- 0.00 - 0.30
- 0.30 - 1.00
- 1.00 - 1.50
- 1.50 - 2.50
- > 2.50

Ordnance Survey(OS) 1:25000
Raster Basemap



Figure No. 73

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

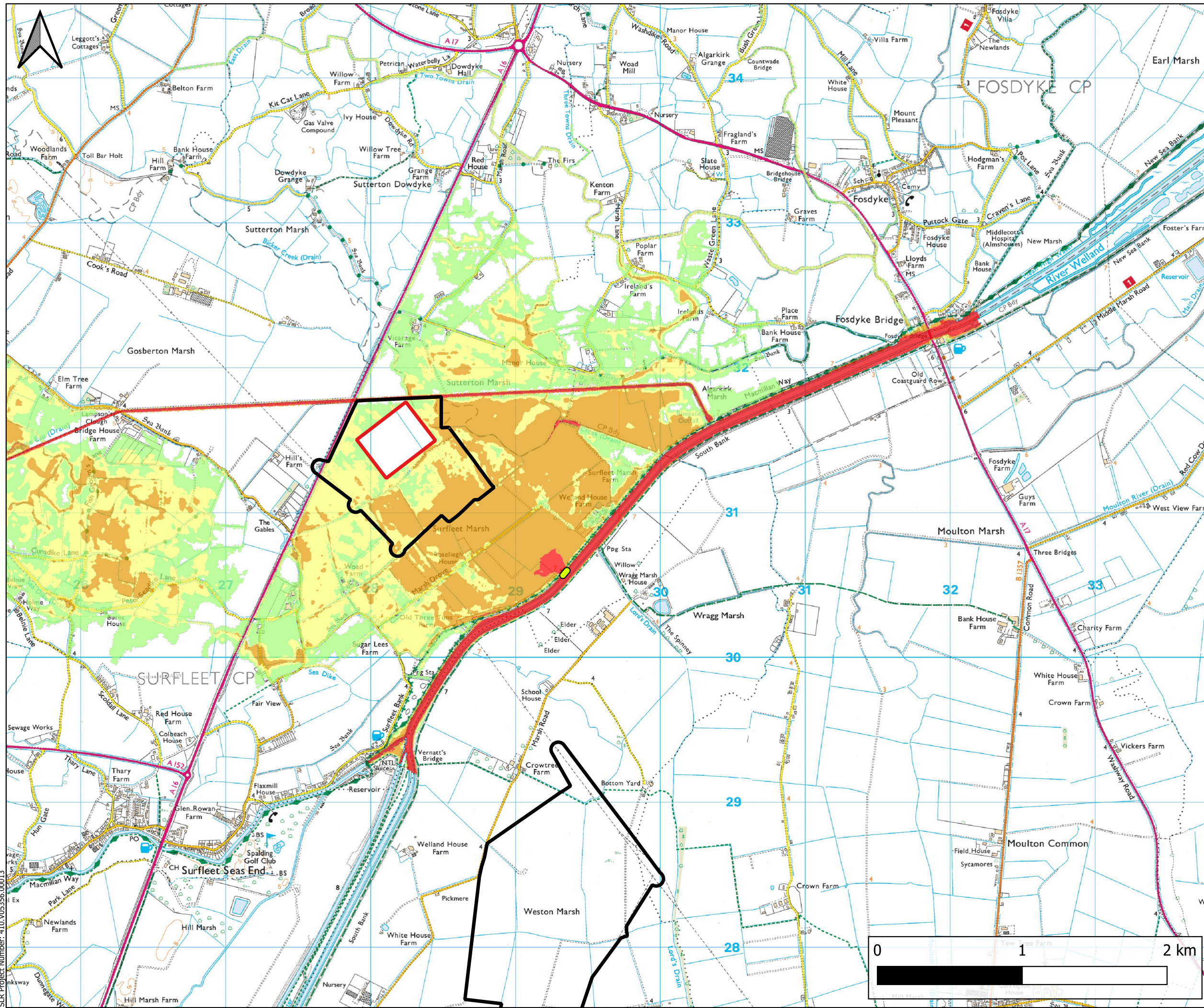


**Maximum Flood Velocity
1:200yr North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 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. 74

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind

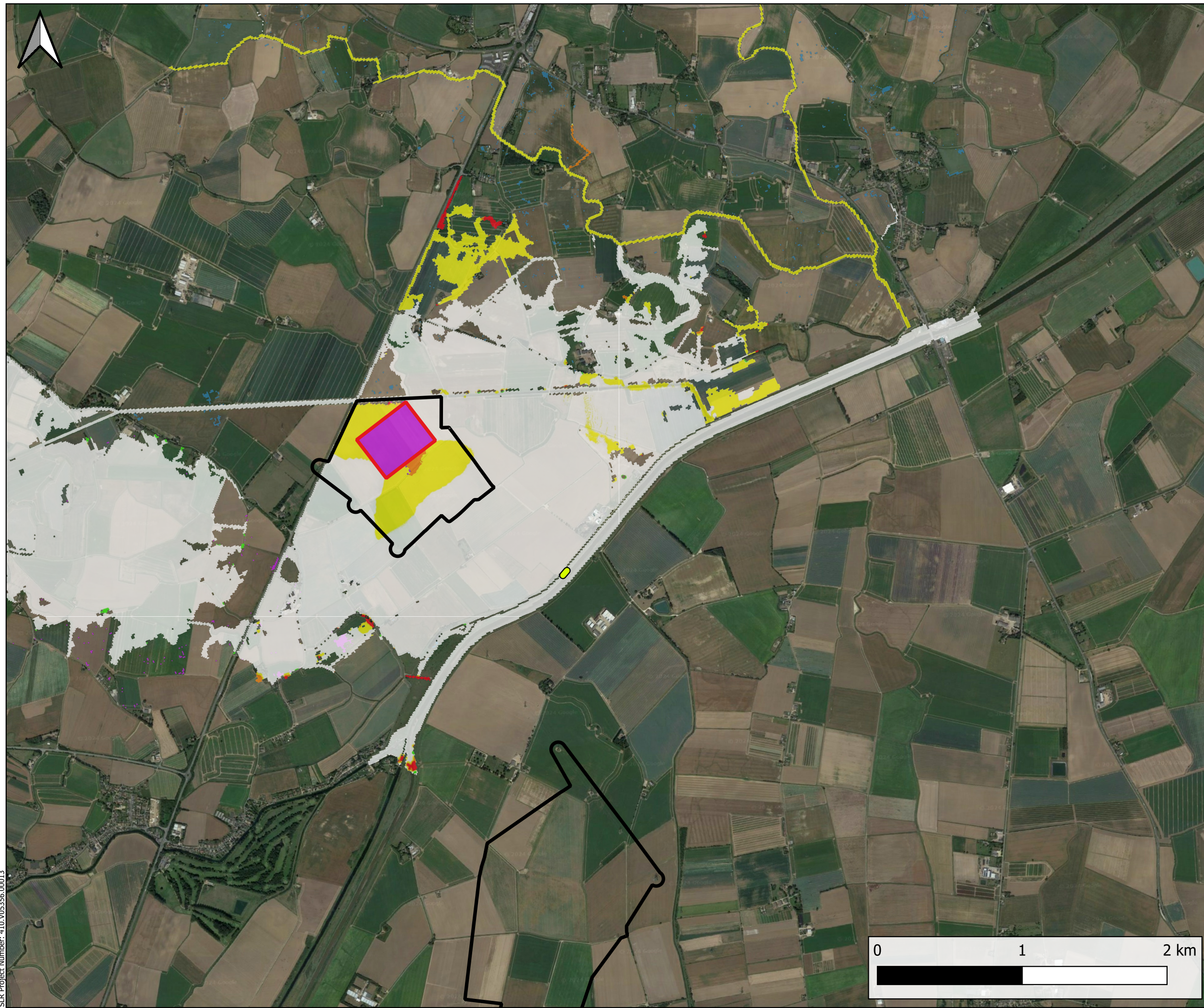


**Maximum Flood Hazard
1:200yr North Breach 2
Proposed Scenario**



Scale A3	Version 2.0	Date June 2024
-------------	----------------	-------------------

SLR Project Number: 410.V05356.00013



LEGEND

- Substation Search Areas
- Onshore Substation Area
- Breach Location

Difference in Depth (m)

- <= -0.01
- 0.01 - 0.01
- 0.01 - 0.03
- 0.03 - 0.05
- 0.05 - 0.15

Change in Conditions

- Was wet now dry
- Was dry now wet

Google Satellite



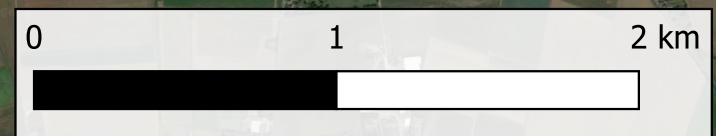
Figure No. 75

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind



**Flood Depth Difference
 1:200yr North Breach 2
 Proposed Scenario**






Scale A3	Version 2.0	Date June 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



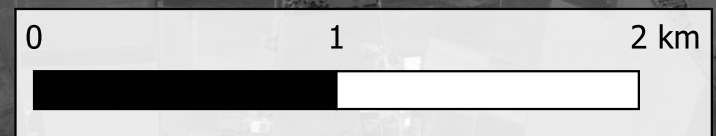
Figure No. 76

Project
Outer Dowsing Offshore Wind Farm - Flood Inundation Mapping

Client
Outer Dowsing Offshore Wind



**Hazard Class Changes
 1:200yr North Breach 2
 Proposed Scenario**



Scale A3	Version 2.0	Date June 2024
-------------	----------------	-------------------

SLR Project Number: 410.V05356.00013