Report

Dengie Marshes Wind Farm

EIA Scoping Report Figures

For Dengie Marshes Wind Farm Limited

30 May 2025

[This page is intentionally left blank]

DO NOT SCALE

NASEBY ENERGY HOLDINGS

Project: **Dengie Marshes Wind Farm**

Title: **EIA Scoping Request: Boundary**

Scale: 1:40,000		Date: 12-May-25
Draw: AV	Check:	Approve:

Status: Preliminary

Drawing No: ESSW1-ENG-250512-01
EIA Scoping RLB

0991-Scoping.aprx/6.1 Landscape Context and Designations A3

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.1

Landscape Context and Designations

KEY

- Site Boundary
- Distance Radii from Site (5, 10, 15, 20km)
- Registered Parks and Gardens
- Country Parks
- Conservation Areas
- National Cycle Network Route
- Other Cycle Route
- King Charles III England Coast Path
- Existing Windfarms within 20km

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:175,000	A3	MP	EF	JI	-

0991-Scoping.aprx/6.2 Landscape Topography A3

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.2

Landscape Topography

KEY

- Site Boundary
- Distance Radii from Site (5, 10, 15, 20km)
- Watercourse/Waterbody
- Woodland

Elevation (AOD)

- 110m
- 0m

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:175,000	A3	MP	EF	JI	-

0991-Scoping aprx/6.3 National Character Areas and Marine Character Areas 20km A3

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.3

National Character Areas and Marine Character Areas

KEY

- Site Boundary
- Distance Radii from Site (5, 10, 15, 20km)

National Character Areas

- NCA 81: Greater Thames Estuary
- NCA 86: South Suffolk and North Essex Clayland
- NCA 111: Northern Thames Basin

South East Marine Character Areas

- MCA 16: Swale, Kentish Flats and Margate Sand
- MCA 18: Thames and Medway Estuaries
- MCA 19: Essex and South Suffolk Estuaries and Coastal Waters
- MCA 20: Thames Approaches

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:175,000	A3	MP	EF	JI	-

0991-Scoping.aprx/6.4 Essex Landscape Character Areas 10km A3

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.4

Essex County Landscape Character Areas

KEY

- Site Boundary
- Distance Radii from Site (5, 10km)

Essex Landscape Character Assessment (2003)

- E1: South Essex Farmlands
- F2: Crouch and Roach Farmland
- F3: Dengie & Foulness Coast
- F4: Blackwater Estuary
- F5: North Blackwater & Colne Coastal Farmlands
- F6: Mersea Island
- F7: Brightlingsea-Clacton-Frinton Coast

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:100,000	A3	MP	EF	JI	-

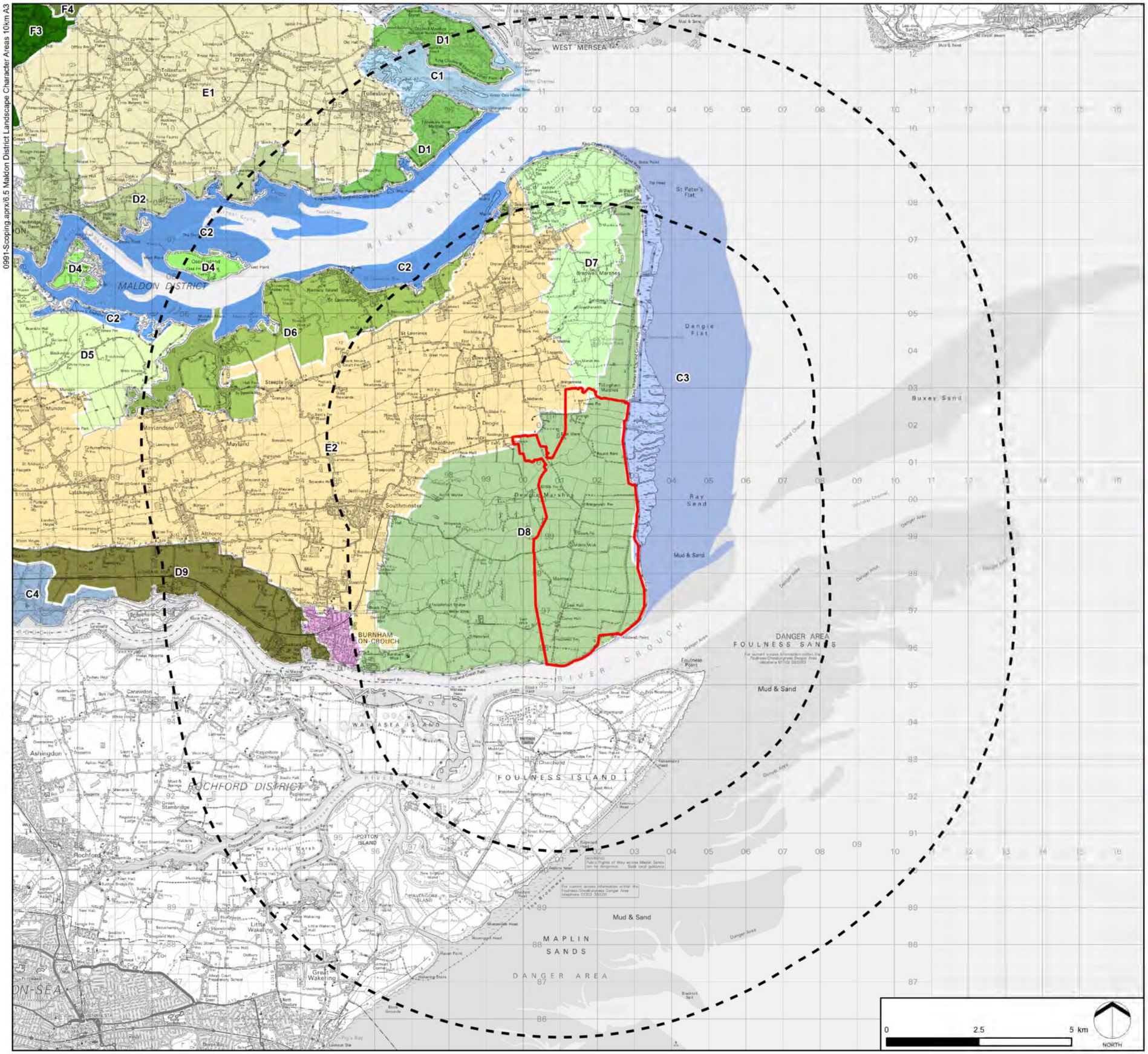
0991-Scoping.aprx/6.5 Maldon District Landscape Character Areas 10km A3

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.5

Maldon District Landscape Character Areas



KEY

- Site Boundary
- Distance Radii from Site (5, 10, 15, 20km)

Maldon Landscape Character Types and Areas (2006)

C - Estuarine Marsh/Mudflats Landscape Type

- C1: Blackwater Estuarine Marsh/Mudflats
- C2: Blackwater Estuarine Marsh/Mudflats
- C3: Dengie Flats Estuarine Marsh/Mudflats
- C4: Fleet Estuarine Marsh/Mudflats

D - Drained Estuarine Marsh Landscape Type

- D1: Old Hall Marshes and Tollesbury Wick Drained Estuarine Marsh
- D2: Maldon Drained Estuarine Marsh
- D4: Osea Island Drained Estuarine Marsh
- D5: Mundon Drained Estuarine Marsh
- D6: Ramsey Drained Estuarine Marsh
- D7: Bradwell Drained Estuarine Marsh
- D8: Dengie Drained Estuarine Marsh
- D9: Fambridge Drained Estuarine Marsh

E - Coastal Farmland Landscape Type

- E1: Tolleshunt Coastal Farmland
- E2: Tillingham and Latchingdon Coastal Farmland

F - Wooded Farmland Landscape Type

- F3: Totham Wooded Farmland
- F4: Tolleshunt Knights Wooded Farmland

Urban Areas

- Burnham-on-Crouch

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:100,000	A3	MP	EF	JI	-

0991-Scoping.aprx

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.6

Zone of Theoretical Visibility - Hub Height (Bare Earth)

KEY

- Site Boundary
- Distance Radii from Site (15, 30, 45km)
- Proposed Viewpoints

Zone of Theoretical Visibility (125m to hub height)

- More theoretical visibility
- Less theoretical visibility

FIGURE DATA:
This figure has been based on the following data:

Layout file: D001-obsv-HH-T5-35km.shp; D001-obsv-HH-T5-110km.shp
Terrain data: T5-DTM.asc; T50-DTM.asc
Viewer's eye height: 2m above ground level
Calculation grid size: 5m (to 15km from turbines) / 50m (beyond)

NOTES:
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS.

The areas shown are the maximum theoretical visibility, taking topography into account.

This visibility map is based on a 'bare earth' model of the landform and does not show any effects of screening from obstacles such as buildings and vegetation.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a DTM and has a $5m^2$ (to 15km from turbines) / $50m^2$ (beyond) resolution.

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:175,000	A1	MP	EF	JI	-

0 5 10 km

NORTH

0991-Scoping.aprx

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.8

Zone of Theoretical Visibility - Hub Height (Screened)

KEY

- Site Boundary
- Distance Radii from Site (15, 30, 45km)
- Proposed Viewpoints
- Woodland (modelled at 15m)

Zone of Theoretical Visibility (125m to hub height)

- More theoretical visibility
- Less theoretical visibility

FIGURE DATA:
This figure has been based on the following data:

Layout file: D001-obsv-HH-T5-35km.shp; D001-obsv-HH-T5-110km.shp
Terrain data: T5-DSM.asc; T50-DSM.asc
Viewer's eye height: 2m above ground level
Calculation grid size: 5m (to 15km from turbines) / 50m (beyond)

NOTES:
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS.

The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and buildings.

A digital surface model (DSM) has been derived from OS Terrain 5 / 50 height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 15m, representing a conservative estimate of average heights within the study area.

The model does not take into account some localised features such as small copses, hedgerows or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a $5m^2$ (to 15km from turbines) / $50m^2$ (beyond) resolution.

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:175,000	A1	MP	EF	JI	-

0 5 10 km

NORTH

0991-Scoping.aprx

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.9

Zone of Theoretical Visibility - Blade Tip (Screened)

KEY

- Site Boundary
- Distance Radii from Site (15, 30, 45km)
- Proposed Viewpoints
- Woodland (modelled at 15m)

Zone of Theoretical Visibility (200m to blade tip)

- More theoretical visibility
- Less theoretical visibility

FIGURE DATA:
This figure has been based on the following data:

Layout file: D001-obsv-BT-T5-35km.shp; D001-obsv-BT-T5-110km.shp
Terrain data: T5-DSM.asc; T50-DSM.asc
Viewer's eye height: 2m above ground level
Calculation grid size: 5m (to 15km from turbines) / 50m (beyond)

NOTES:
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS.

The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and buildings.

A digital surface model (DSM) has been derived from OS Terrain 5 / 50 height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 15m, representing a conservative estimate of average heights within the study area.

The model does not take into account some localised features such as small copses, hedgerows or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a $5m^2$ (to 15km from turbines) / $50m^2$ (beyond) resolution.

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:175,000	A1	MP	EF	JI	-

0 5 10 km

NORTH

0991-Scoping.aprx

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.7

Zone of Theoretical Visibility - Blade Tip (Bare Earth)

KEY

- Site Boundary
- Distance Radii from Site (15, 30, 45km)
- Proposed Viewpoints

Zone of Theoretical Visibility (200m to blade tip)

- More theoretical visibility
- Less theoretical visibility

FIGURE DATA:
This figure has been based on the following data:

Layout file: D001-obsv-BT-T5-35km.shp; D001-obsv-BT-T5-110km.shp
Terrain data: T5-DTM.asc; T50-DTM.asc
Viewer's eye height: 2m above ground level
Calculation grid size: 5m (to 15km from turbines) / 50m (beyond)

NOTES:
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS.

The areas shown are the maximum theoretical visibility, taking topography into account.

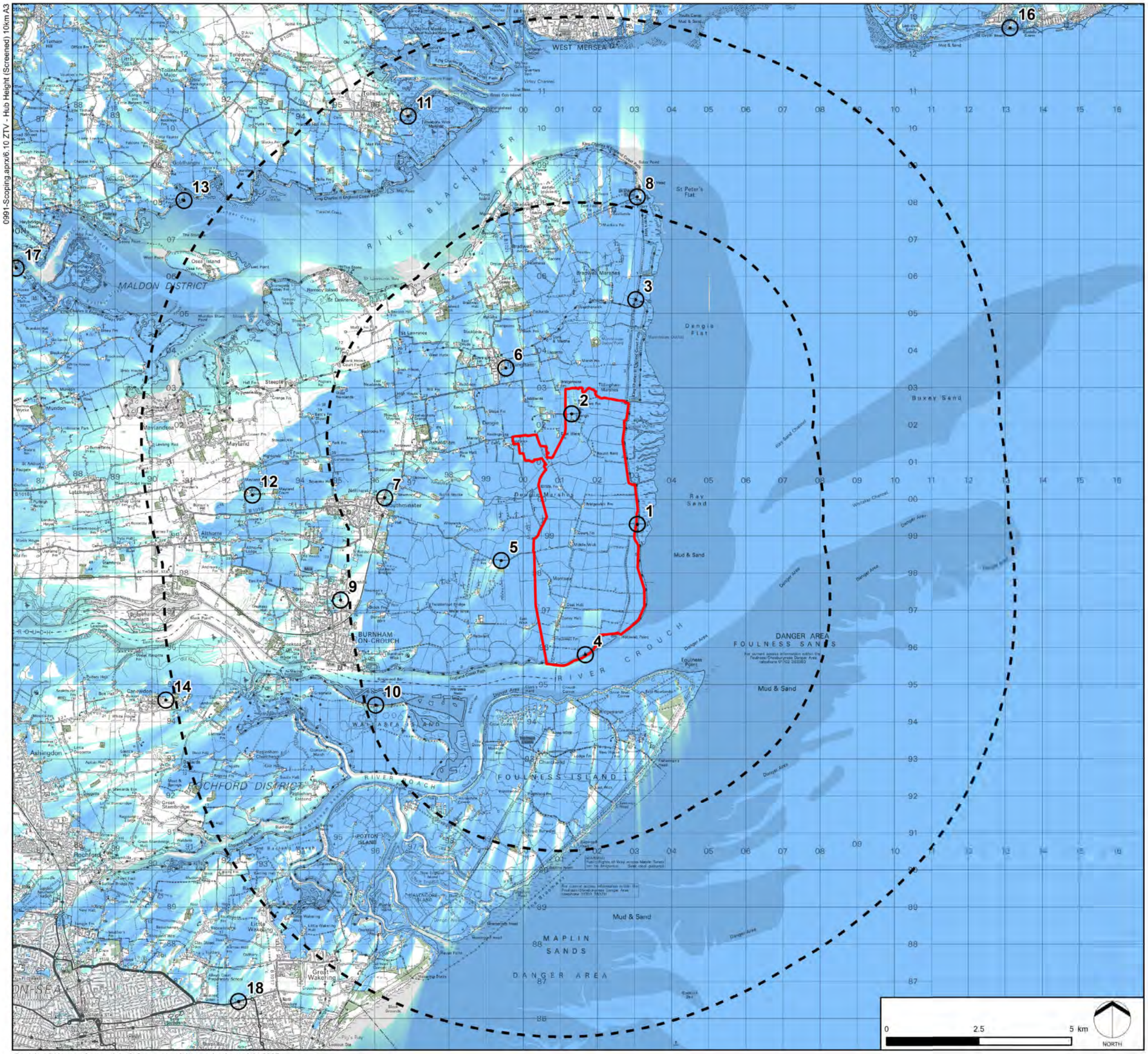
This visibility map is based on a 'bare earth' model of the landform and does not show any effects of screening from obstacles such as buildings and vegetation.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a DTM and has a $5m^2$ (to 15km from turbines) / $50m^2$ (beyond) resolution.

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:175,000	A1	MP	EF	JI	-

0991-Scoping.aprx/6.10 ZTV - Hub Height (Screened) 10km A3



STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.10

Zone of Theoretical Visibility - Hub Height (Screened)

KEY

- Site Boundary
- Distance Radii from Site (5, 10km)
- Proposed Viewpoints
- Woodland (modelled at 15m)

Zone of Theoretical Visibility (125m to hub height)

- More theoretical visibility
- Less theoretical visibility

FIGURE DATA:
This figure has been based on the following data:

Layout file: D001-obsv-HH-T5-35km.shp
Terrain data: T5-DSM.asc
Viewer's eye height: 2m above ground level
Calculation grid size: 5m

NOTES:
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS.

The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and buildings.

A digital surface model (DSM) has been derived from OS Terrain 5 height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 15m, representing a conservative estimate of average heights within the study area.

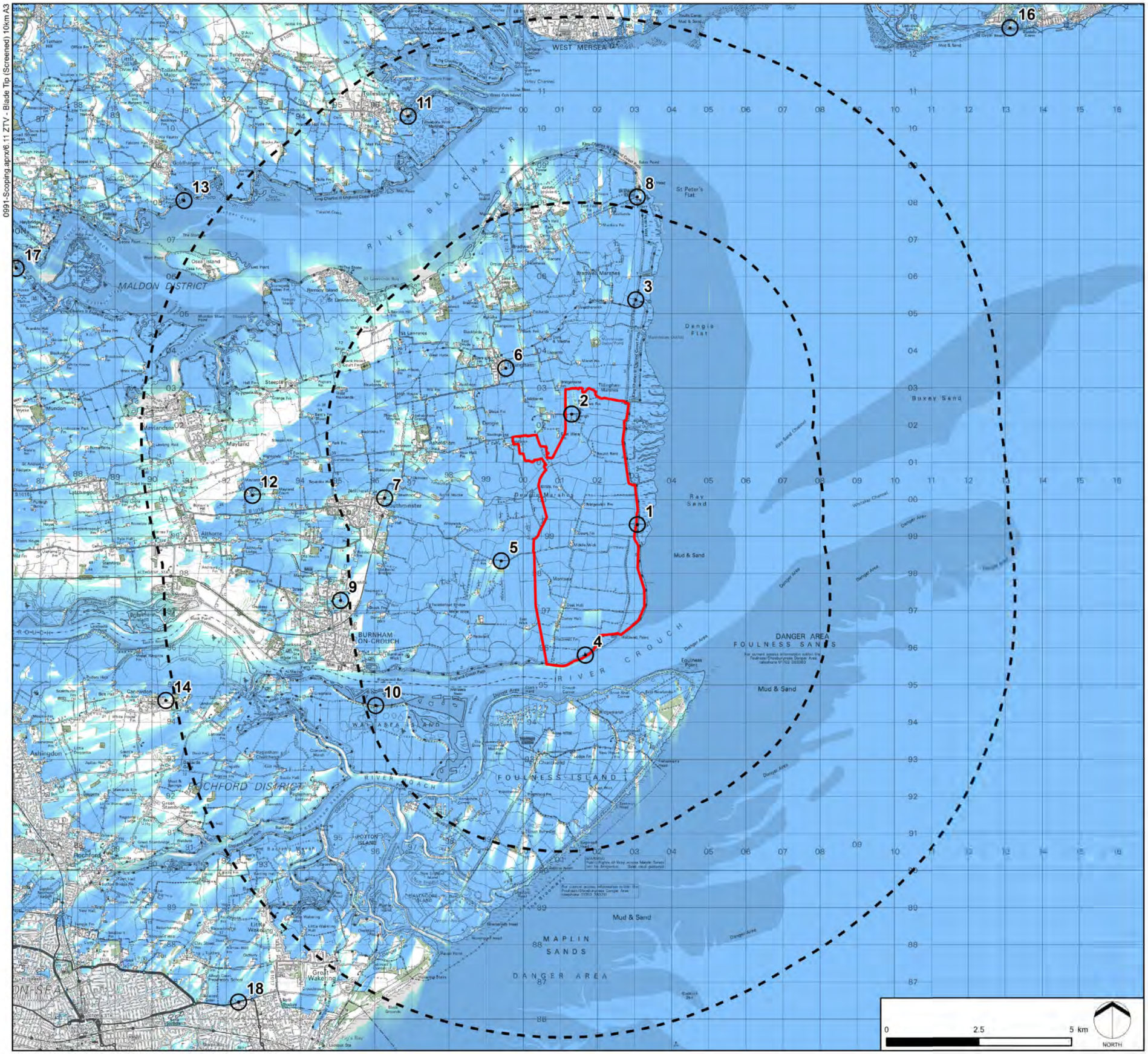
The model does not take into account some localised features such as small copses, hedgerows or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a $5m^2$ resolution.

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:100,000	A3	MP	EF	JI	-

0991-Scoping.aprx/6.11 ZTV - Blade Tip (Screened) 10km A3



Contains Ordnance Survey data © Crown copyright and database right 2025

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

DENGIE WINDFARM

FIGURE 6.11

Zone of Theoretical Visibility - Blade Tip (Screened)

KEY

- Site Boundary
- Distance Radii from Site (5, 10km)
- Proposed Viewpoints
- Woodland (modelled at 15m)

Zone of Theoretical Visibility (200m to blade tip)

- More theoretical visibility
- Less theoretical visibility

FIGURE DATA:
This figure has been based on the following data:

Layout file: D001-obsv-BT-T5-35km.shp
Terrain data: T5-DSM.asc
Viewer's eye height: 2m above ground level
Calculation grid size: 5m

NOTES:
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS.

The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and buildings.

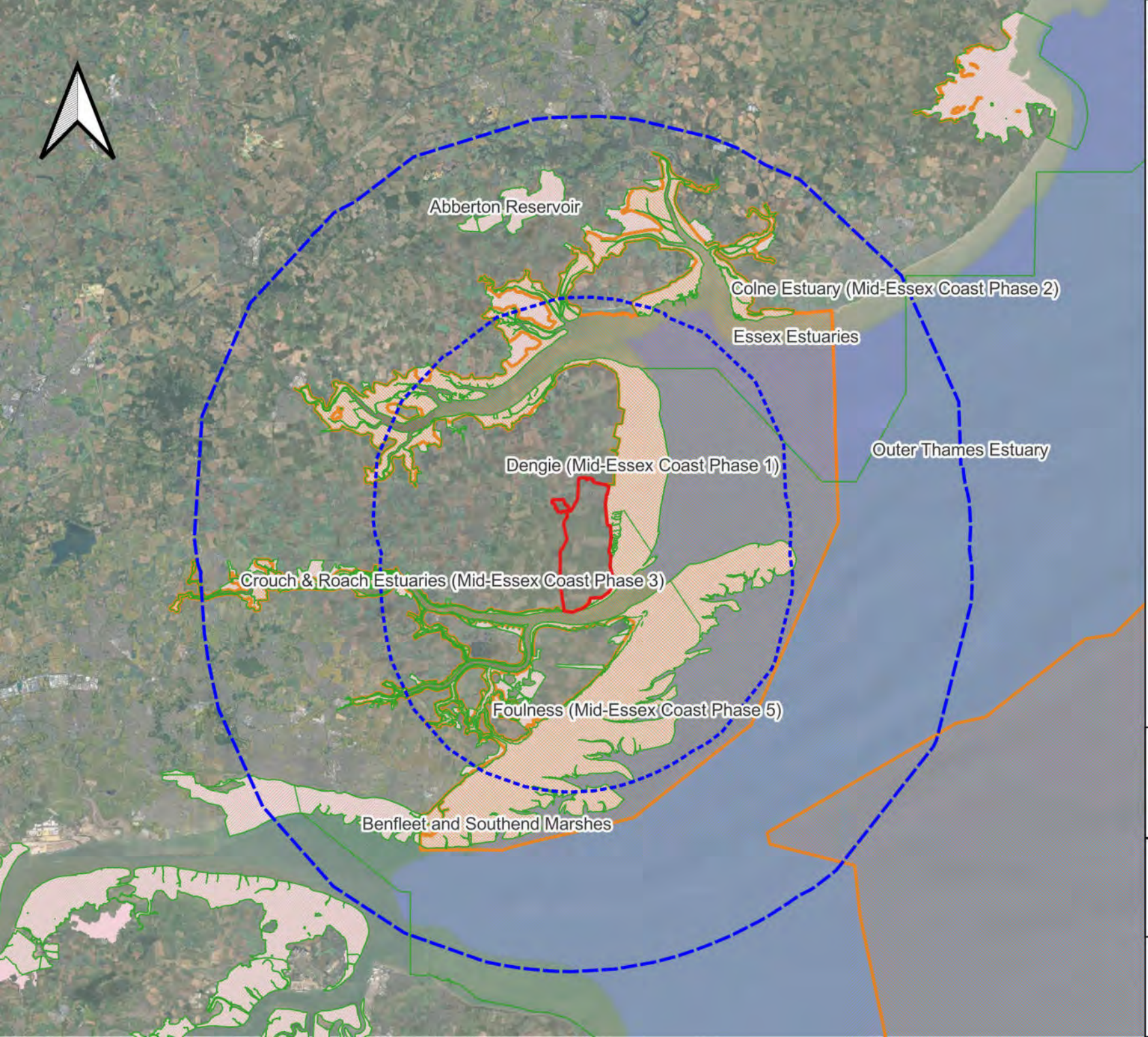
A digital surface model (DSM) has been derived from OS Terrain 5 height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 15m, representing a conservative estimate of average heights within the study area.

The model does not take into account some localised features such as small copses, hedgerows or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a $5m^2$ resolution.

Projected Coordinate System: British National Grid

DATE	SCALE	PAPER	BY	CHK	QA	REV
MAY 2025	1:100,000	A3	MP	EF	JI	-



Site Boundary
10km Buffer
20km Buffer
Special Protection Areas
Special Areas of Conservation
Ramsar Sites

Logika GROUP

Figure 7-1 International Statutory Designated Sites

0 5 10 km

Site Boundary
5km Buffer
National Nature Reserves
Sites of Special Scientific Interest

Logika GROUP

Figure 7-2 National Statutory Designated Sites

0 2 4 km

Site Boundary
Winter Birds - Transects

Logika GROUP

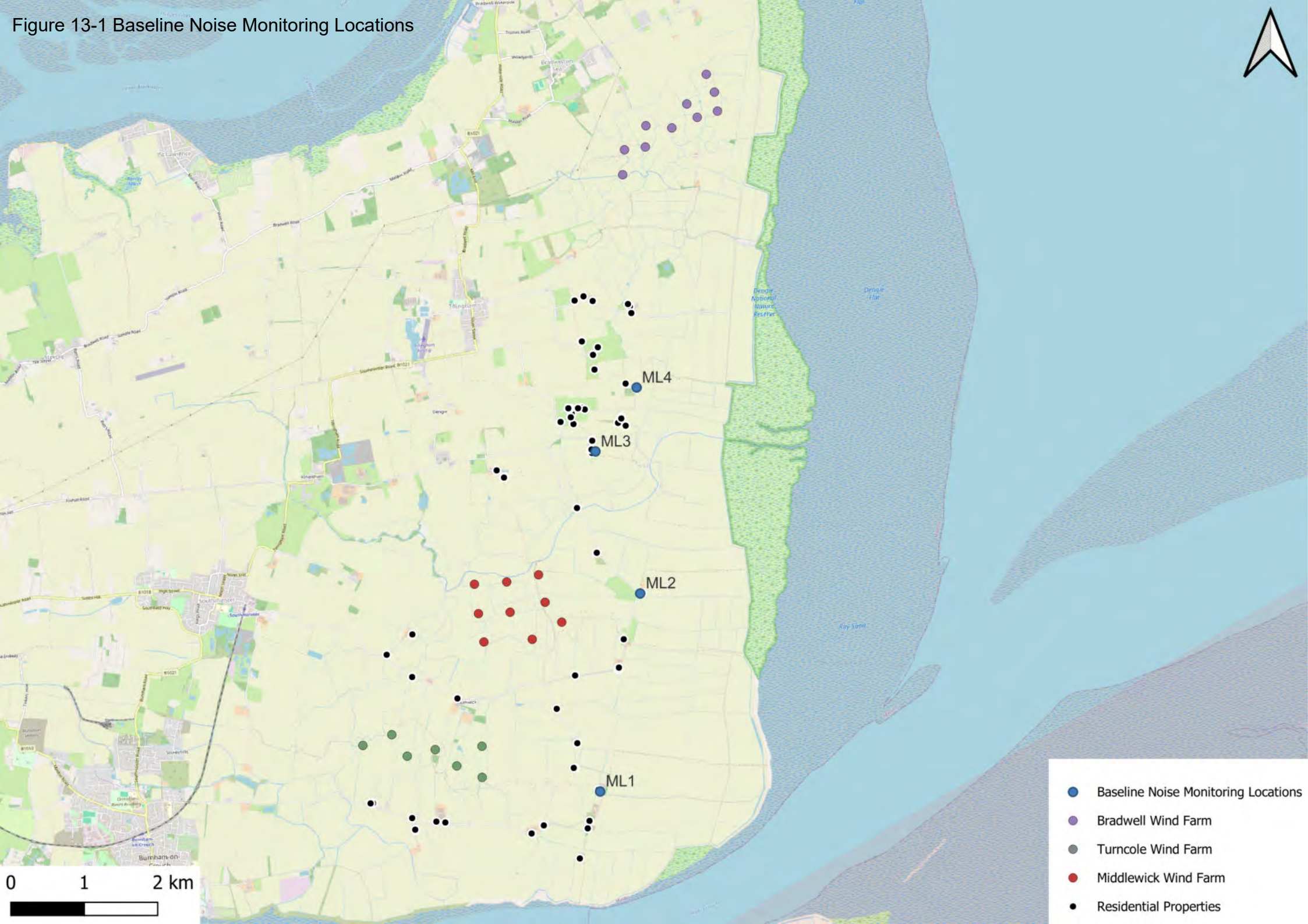
Figure 7-3 Non-Breeding Bird Surveys - Transect Routes

0 1,000 2,000 m


Site Boundary
Vantage Point Survey 2km Viewshed
Logika GROUP
Figure 7-4 Vantage Point Survey - Viewsheds
0
1,000
2,000 m


Site Boundary
500m Buffer
Inaccessible
Not Suitable for Survey
Surveyed
20
19
12
14
16
17
13
15
18
10
11
9
8
D23
7
5
6
4
3
2
Logika
GROUP
Figure 7-5 Waterbodies within 500m
0
1,000
2,000 m

Figure 13-1 Baseline Noise Monitoring Locations



London • Bristol • Warrington • Brussels