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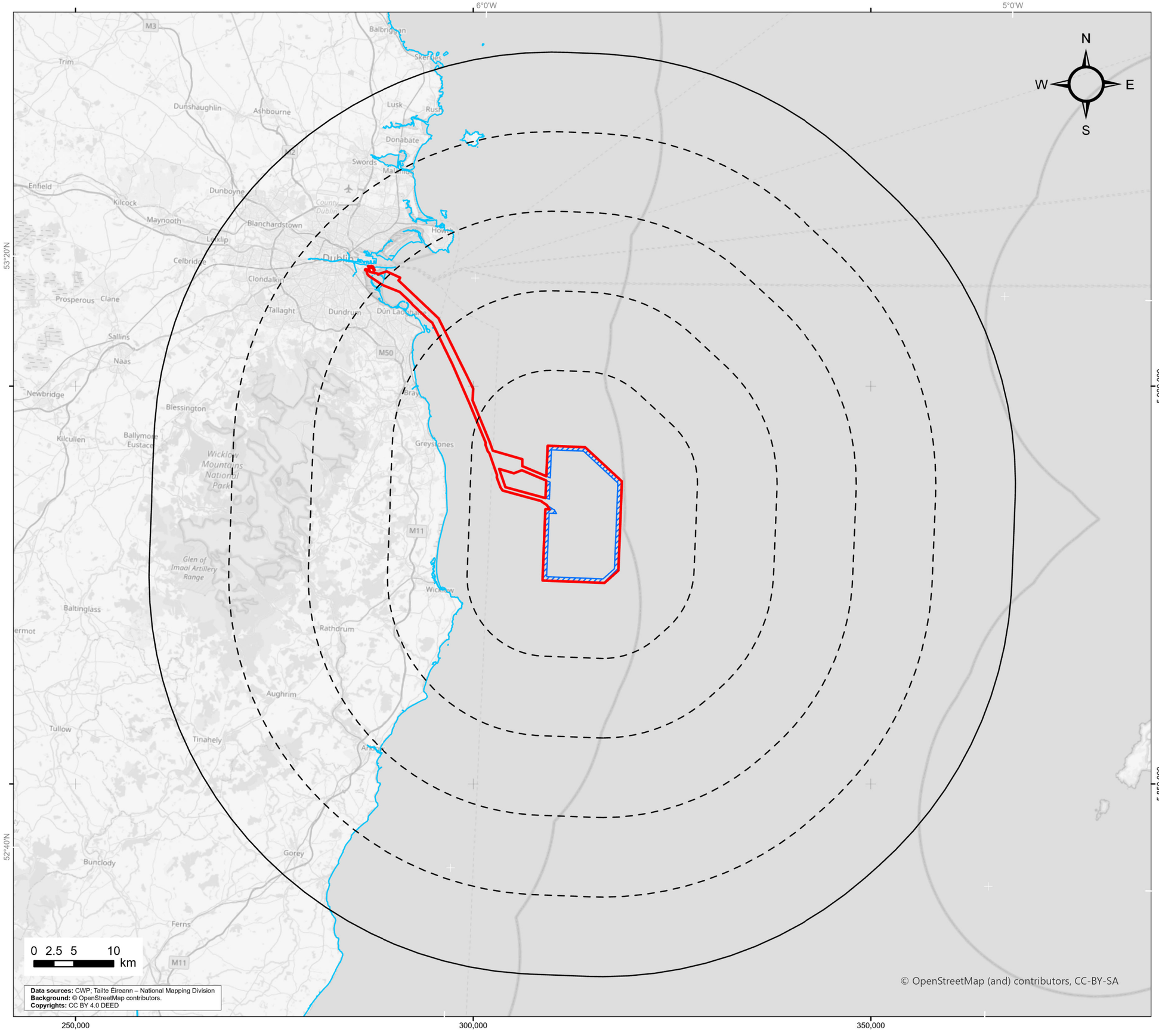
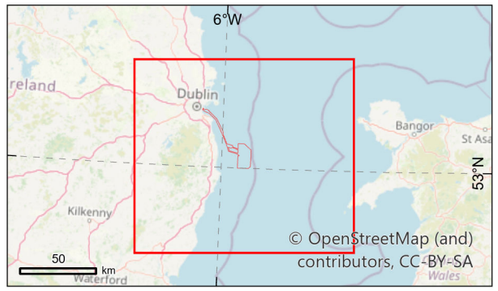
Environmental Impact Assessment Report

Volume 4

Appendix 15.10 Seascape, Landscape and Visual Impact Assessment (SLVIA) Figures





- Planning Application Boundary (PAB)
- Marine Safety Demarcation Area (MSDA)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark

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Contractor: LDĀDESIGN www.lda-design.co.uk

Figure 15.1
Seascape, Landscape and Visual Impact Assessment (SLVIA) study area

CWP doc. number: CWP-LDA-ENG-08-01-MAP-0653

Internal descriptive code: ALL - PAB..WF.BUFF.50km.SLVIA.STUDY.AREA - EIAR.FIG.15.01

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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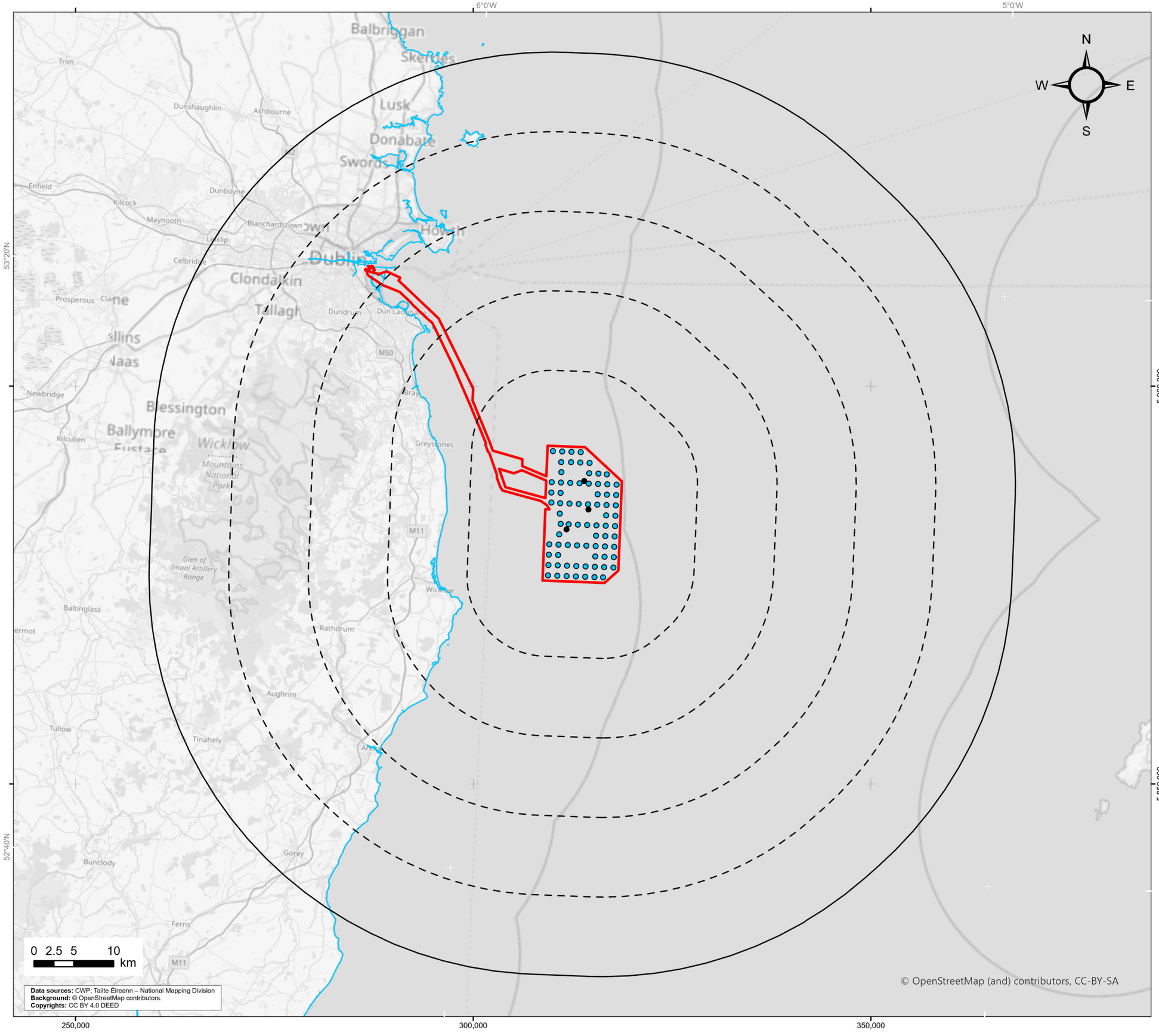

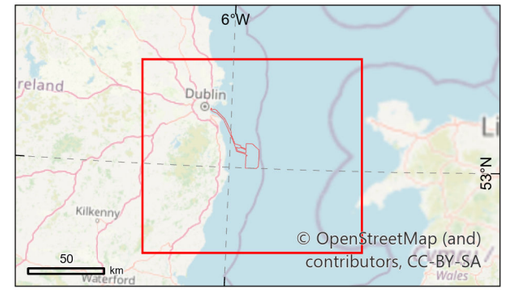

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option A location
- Offshore Substation Structure (OSS) location

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Figure 15.2a
Option A Wind Turbine Generator (WTG) layout

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1013

Internal descriptive code: ALL - PAB..WF.EUFF.50km.WTG.LO.75.L219 - EIAR.FIG.15.02a

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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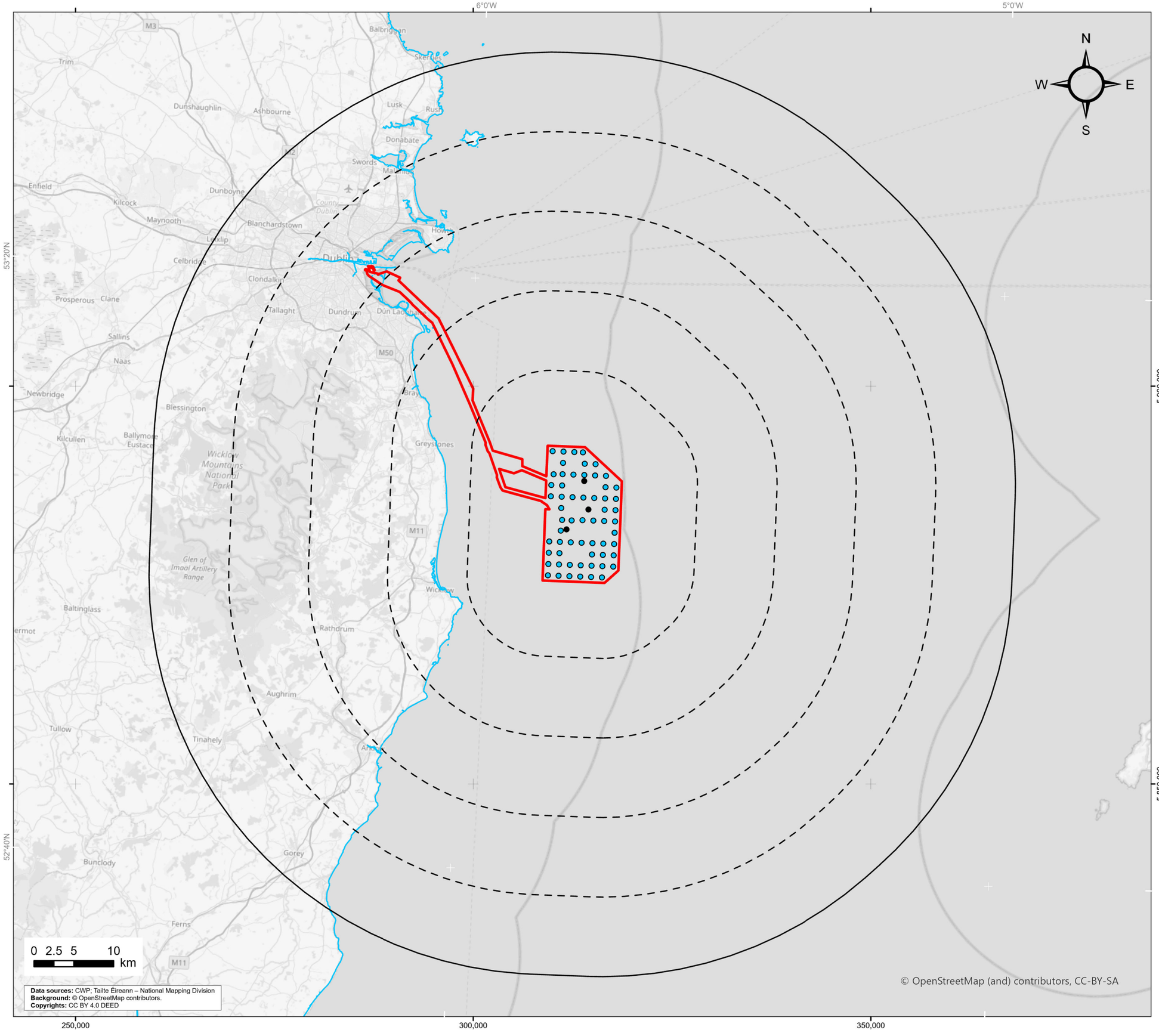

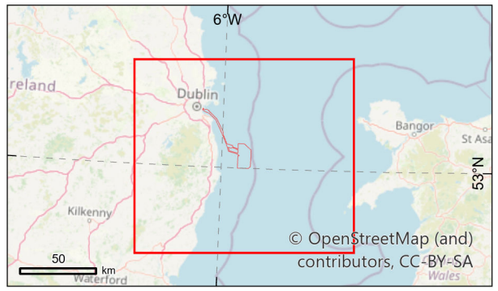

- Planning Application Boundary (PAB)
- 10 km incremental buffers of array site / wind farm site
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- Offshore Substation Structure (OSS) location

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Figure 15.2b
Option B Wind Turbine Generator (WTG) layout

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1014

Internal descriptive code: ALL - PAB..WF.BUFF.50km..WTG.LO.60.L214 - EIAR.FIG.15.02b

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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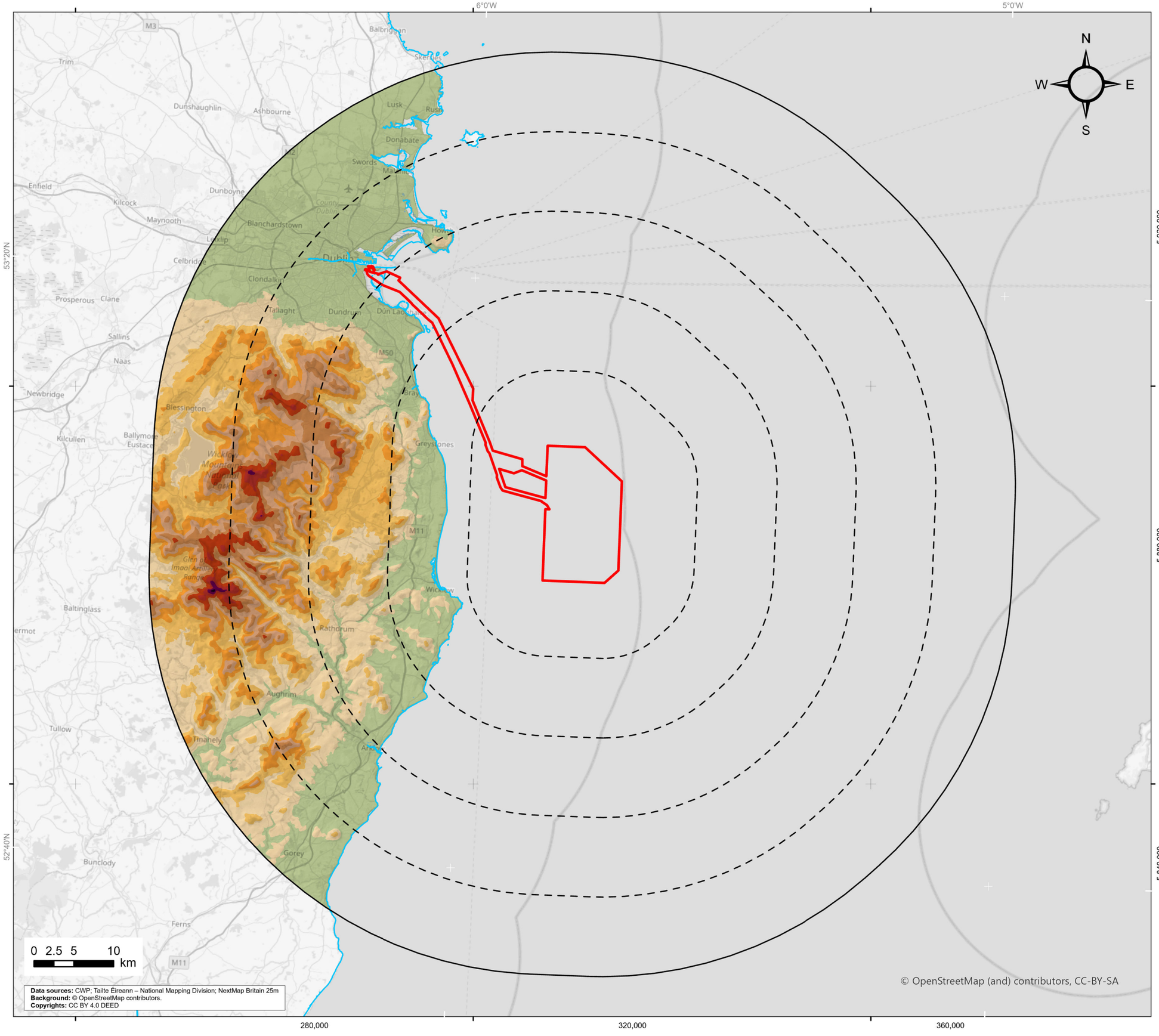

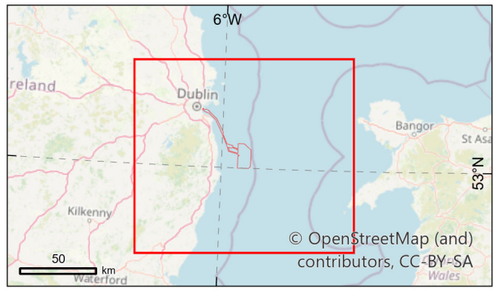

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark

Elevation (m ODD)

- 900 - 1000
- 800 - 900
- 700 - 800
- 600 - 700
- 500 - 600
- 400 - 500
- 300 - 400
- 200 - 300
- 100 - 200
- 0 - 100
- -10 - 0

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Figure 15.3
Onshore Topographic model

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1015

Internal descriptive code: ALL - PAB..WF.FLB.BUFF.50km - ONSH.DEM.NMB.5m - EIAR.FIG.15.03

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

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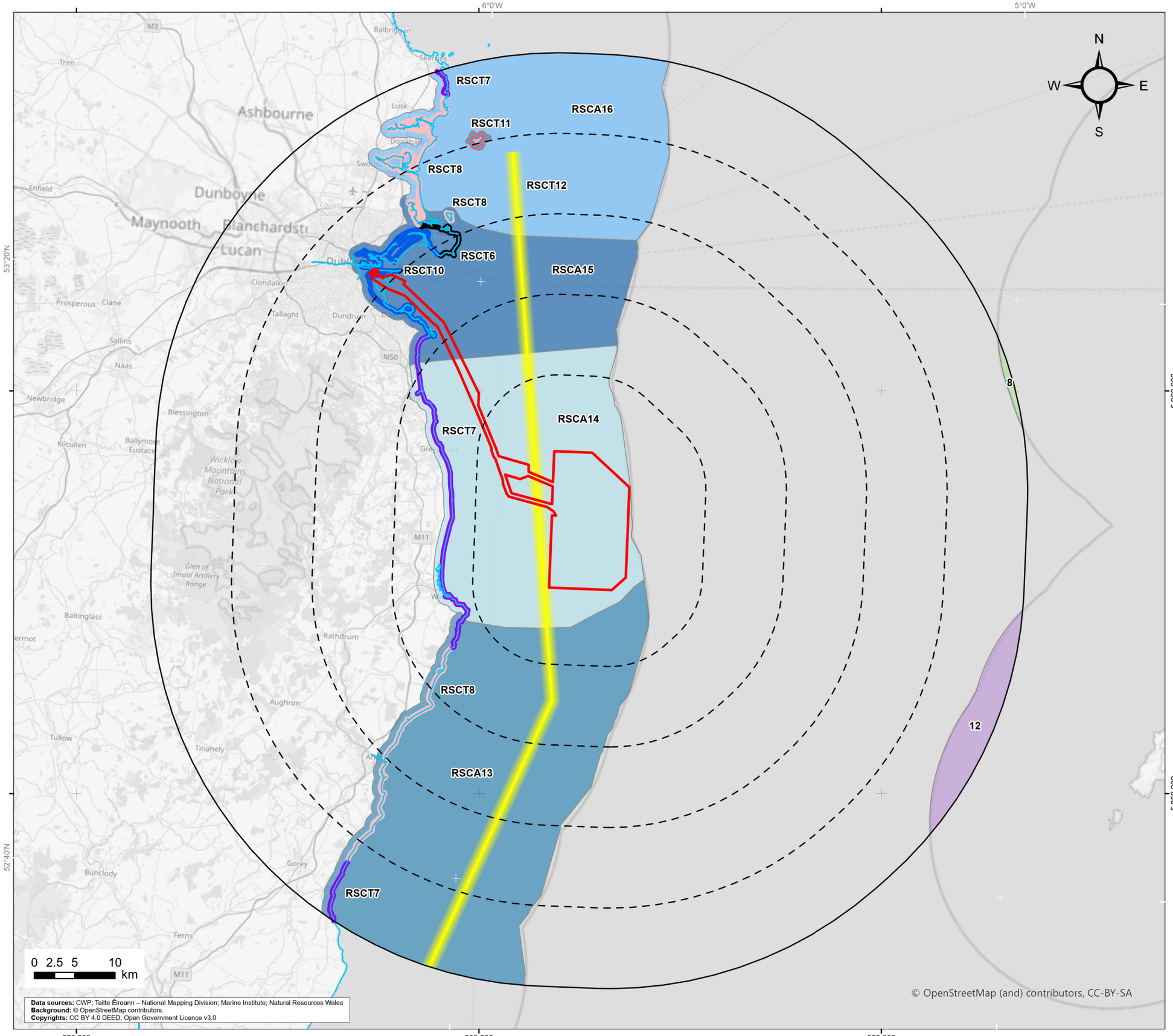

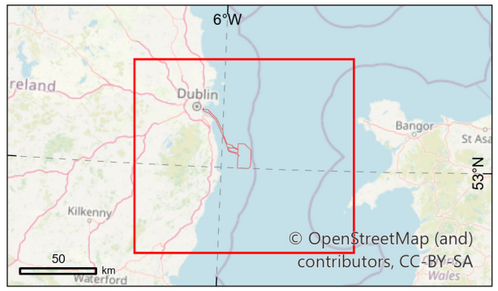

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark

Regional Seascape Character Types (RSCTs)

- 6: High granite/sandstone cliffs and plateau
- 7: Broad estuarine bays and complex low plateau and cliff coastline
- 8: Low lying and estuarine coastal plain with long, narrow sandy beaches
- 10: Modified historic urban bay
- 11: Large islands
- 12: Shallow offshore waters

Regional Seascape Character Areas (RSCAs)

- 13: South east irish sea
- 14: Irish sea, sandbanks and broadbays
- 15: Dublin bay
- 16: Northeastern irish sea islands and beaches

National Marine Character Areas (NMCAs) (Wales)

- 8: West Anglesey open waters
- 12: Llŷn and south west Anglesey open waters

Data sources: CWP; Tailte Éireann – National Mapping Division; Marine Institute; Natural Resources Wales
Background: © OpenStreetMap contributors.
Copyrights: CC BY 4.0 DEED; Open Government Licence v3.0

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Figure 15.4
Regional Seascape Character Types (RSCTs) and Regional Seascape Character Areas (RSCAs)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-0654

Internal descriptive code: ALL - PAB..WF.BUFF.50km..RSCTs.RSCAs - EIAR.FIG.15.04

Size: A3
Scale: 1:460,000

CRS: EPSG 25830

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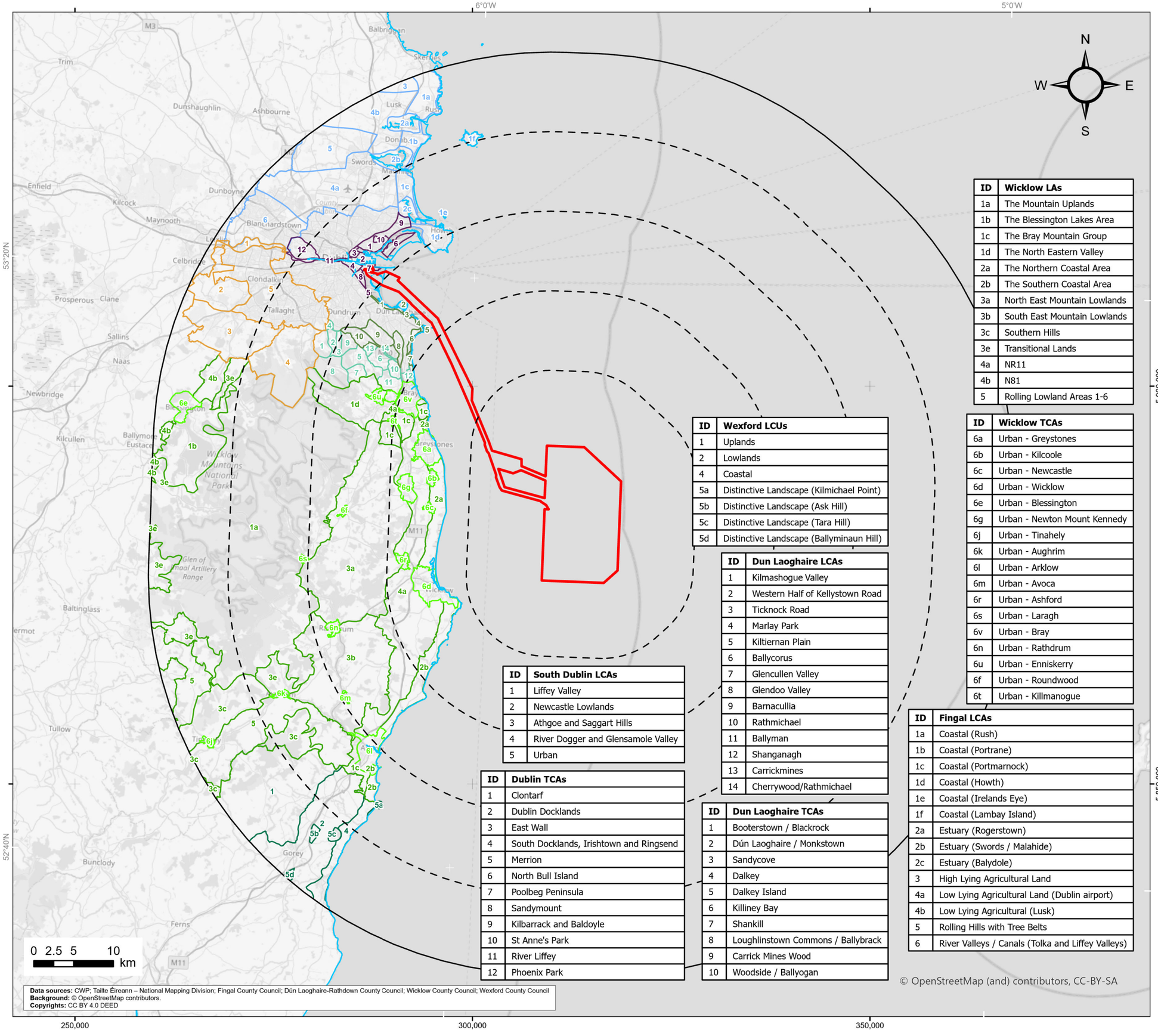


ID	Wicklow LAs
1a	The Mountain Uplands
1b	The Blessington Lakes Area
1c	The Bray Mountain Group
1d	The North Eastern Valley
2a	The Northern Coastal Area
2b	The Southern Coastal Area
3a	North East Mountain Lowlands
3b	South East Mountain Lowlands
3c	Southern Hills
3e	Transitional Lands
4a	NR11
4b	N81
5	Rolling Lowland Areas 1-6

ID	Wexford LCUs
1	Uplands
2	Lowlands
4	Coastal
5a	Distinctive Landscape (Kilmichael Point)
5b	Distinctive Landscape (Ask Hill)
5c	Distinctive Landscape (Tara Hill)
5d	Distinctive Landscape (Ballyminaun Hill)

ID	Wicklow TCAs
6a	Urban - Greystones
6b	Urban - Kilcoole
6c	Urban - Newcastle
6d	Urban - Wicklow
6e	Urban - Blessington
6g	Urban - Newton Mount Kennedy
6j	Urban - Tinahely
6k	Urban - Aughrim
6l	Urban - Arklow
6m	Urban - Avoca
6r	Urban - Ashford
6s	Urban - Laragh
6v	Urban - Bray
6n	Urban - Rathdrum
6u	Urban - Enniskerry
6f	Urban - Roundwood
6t	Urban - Killmanogue

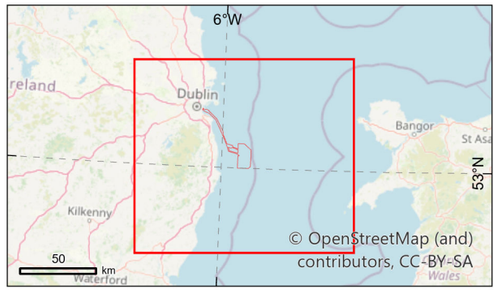
ID	Dun Laoghaire LCAs
1	Kilmashogue Valley
2	Western Half of Kellystown Road
3	Ticknock Road
4	Marlay Park
5	Kiltiernan Plain
6	Ballycorus
7	Glencullen Valley
8	Glendoo Valley
9	Barnacullia
10	Rathmichael
11	Ballyman
12	Shanganagh
13	Carrickmines
14	Cherrywood/Rathmichael

ID	Fingal LCAs
1a	Coastal (Rush)
1b	Coastal (Portrane)
1c	Coastal (Portmarnock)
1d	Coastal (Howth)
1e	Coastal (Irelands Eye)
1f	Coastal (Lambay Island)
2a	Estuary (Rogerstown)
2b	Estuary (Swords / Malahide)
2c	Estuary (Balydole)
3	High Lying Agricultural Land
4a	Low Lying Agricultural Land (Dublin airport)
4b	Low Lying Agricultural (Lusk)
5	Rolling Hills with Tree Belts
6	River Valleys / Canals (Tolka and Liffey Valleys)

ID	South Dublin LCAs
1	Liffey Valley
2	Newcastle Lowlands
3	Athgoe and Saggart Hills
4	River Dogger and Glensamole Valley
5	Urban

ID	Dublin TCAs
1	Clontarf
2	Dublin Docklands
3	East Wall
4	South Docklands, Irishtown and Ringsend
5	Merrion
6	North Bull Island
7	Poolbeg Peninsula
8	Sandymount
9	Kilbarrack and Baldoyle
10	St Anne's Park
11	River Liffey
12	Phoenix Park

ID	Dun Laoghaire TCAs
1	Booterstown / Blackrock
2	Dún Laoghaire / Monkstown
3	Sandycove
4	Dalkey
5	Dalkey Island
6	Killiney Bay
7	Shankill
8	Loughlinstown Commons / Ballybrack
9	Carrick Mines Wood
10	Woodside / Ballyogan



- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark

Landscape and townscape character

- Fingal Landscape Character Areas (LCAs)
- Dublin Townscape Character Areas (TCAs)
- South Dublin Landscape Character Areas (LCAs)
- Dun Laoghaire Landscape Character Areas (LCAs)
- Dun Laoghaire Townscape Character Areas (TCAs)
- Wicklow Landscape Areas (LAs)
- Wicklow Townscape Character Areas (TCAs)
- Wexford Landscape Character Units (LCUs)

Data sources: CWP; Tailte Éireann – National Mapping Division; Fingal County Council; Dún Laoghaire-Rathdown County Council; Wicklow County Council; Wexford County Council
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Figure 15.5
Landscape and townscape character
(Context scale 1:460,000)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-0655

Internal descriptive code: ALL - PAB..WF.BUFF.50km..LCAs.TCAs.460K - EIAR.FIG.15.05

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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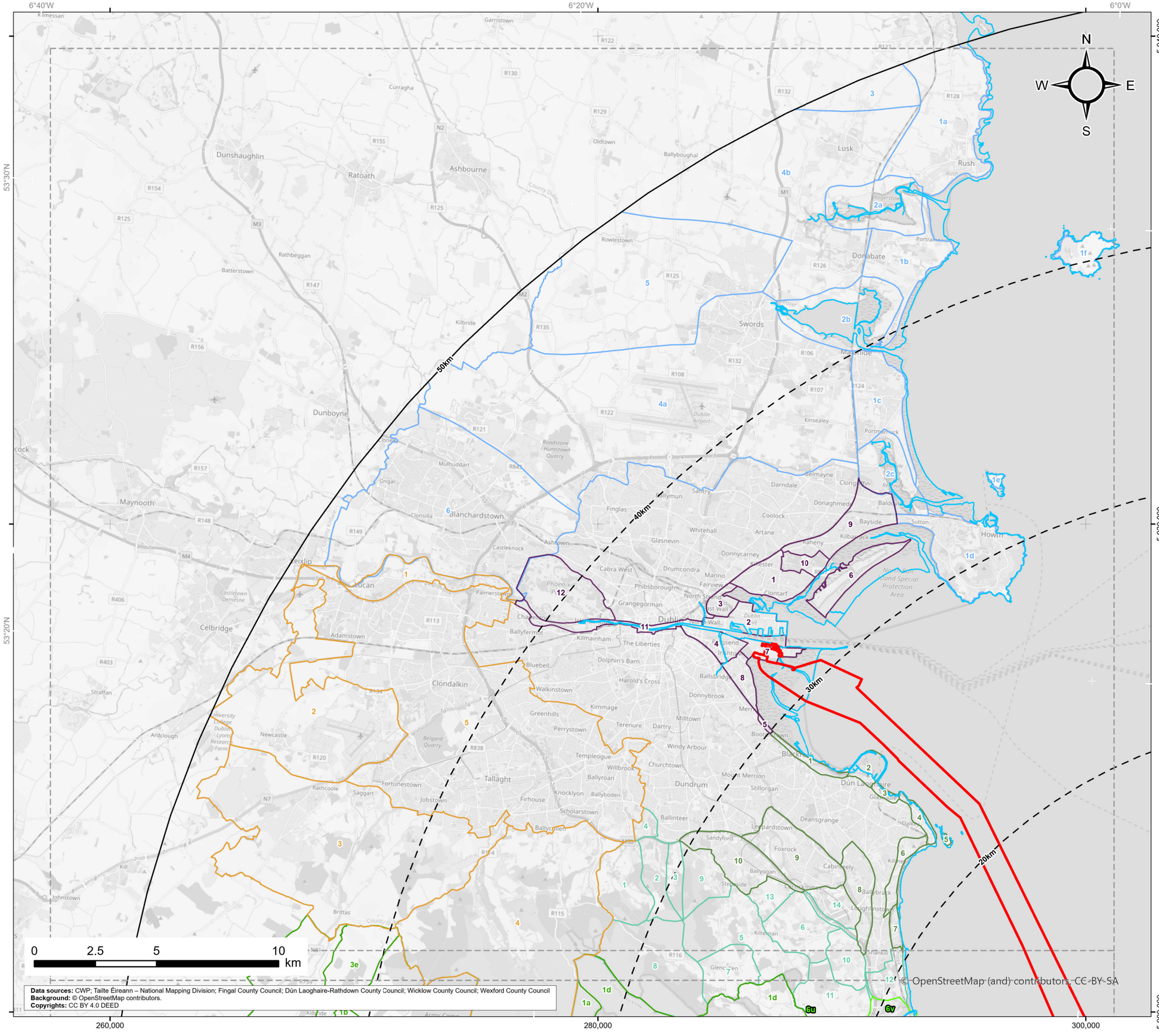

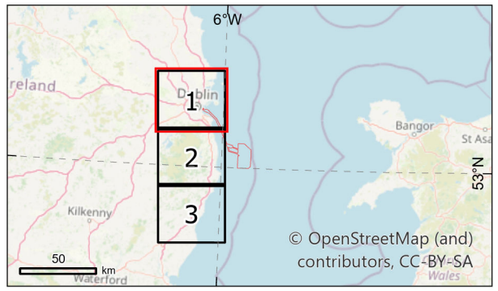

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark

Landscape and townscape character

- Fingal Landscape Character Areas (LCAs)
- Dublin Townscape Character Areas (TCAs)
- South Dublin Landscape Character Areas (LCAs)
- Dun Laoghaire Landscape Character Areas (LCAs)
- Dun Laoghaire Townscape Character Areas (TCAs)
- Wicklow Landscape Areas (LAs)
- Wicklow Townscape Character Areas (TCAs)

Note:
For information on landscape types, areas, categories and units ID please refer back to Figure 15.5 Landscape and townscape character.

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Figure 15.6 Landscape and townscape character (scale 1:150,000)

Page 1 of 3

CWP doc. number: CWP-LDA-ENG-08-01-MAB-1016

Internal descriptive code: ONSH.ALL - PAB..WF.BUFF.50km..LCAs.TCAs.150K - EIAR.FIG.15.06

Size: A3

Scale: 1:150,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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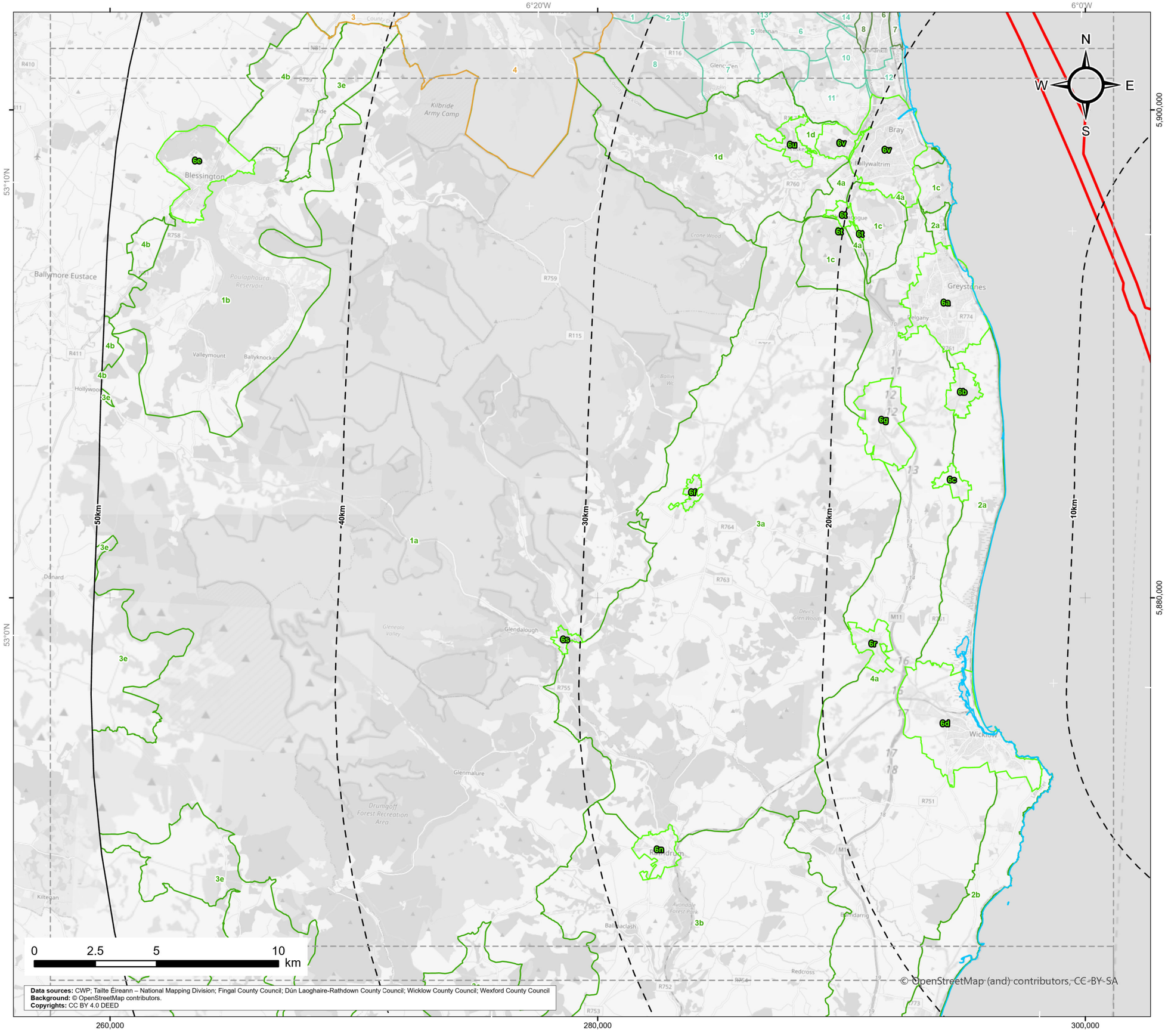

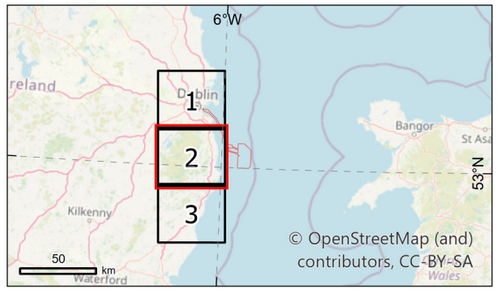

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark

Landscape and townscape character

- South Dublin Landscape Character Areas (LCAs)
- Dun Laoghaire Landscape Character Areas (LCAs)
- Dun Laoghaire Townscape Character Areas (TCAs)
- Wicklow Landscape Areas (LAs)
- Wicklow Townscape Character Areas (TCAs)

Note:
For information on landscape types, areas, categories and units ID please refer back to Figure 15.5 Landscape and townscape character.

Data sources: CWP; Tailte Éireann – National Mapping Division; Fingal County Council; Dún Laoghaire-Rathdown County Council; Wicklow County Council; Wexford County Council
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Figure 15.6
Landscape and townscape character (scale 1:150,000)

Page 2 of 3

CWP doc. number: CWP-LDA-ENG-08-01-MAB-1016

Internal descriptive code: ONSH.ALL - PAB..WF.BUFF.50km..LCAs.TCAs.150K - EIAR.FIG.15.06

Size: A3
Scale: 1:150,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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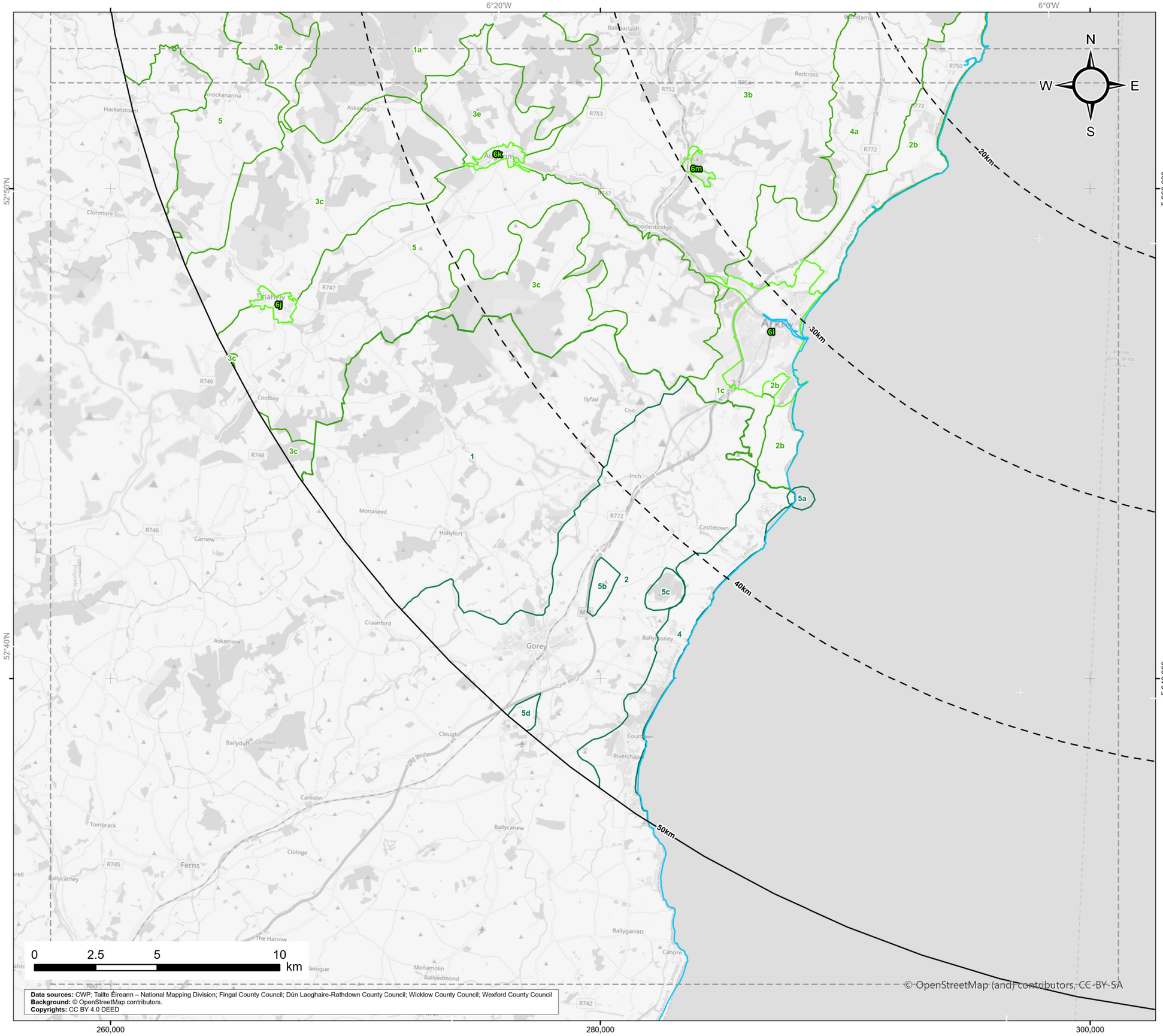

Data sources: CWP; Tailte Éireann – National Mapping Division; Fingal County Council; Dún Laoghaire-Rathdown County Council; Wicklow County Council; Wexford County Council
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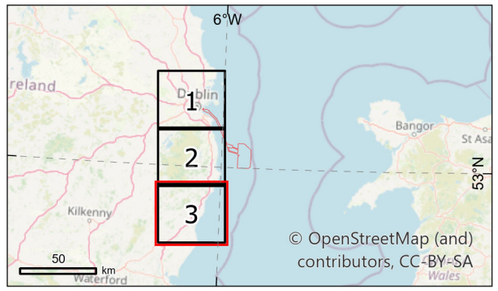

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark

Landscape and townscape character

- Wicklow Landscape Areas (LAs)
- Wicklow Townscape Character Areas (TCAs)
- Wexford Landscape Character Units (LCUs)

Note:
For information on landscape types, areas, categories and units ID please refer back to Figure 15.5 Landscape and townscape character.

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Figure 15.6 Landscape and townscape character (scale 1:150,000)

Page 3 of 3

CWP doc. number: CWP-LDA-ENG-08-01-MAB-1016

Internal descriptive code: ONSH.ALL - PAB..WF.BUFF.50km..LCAs.TCAs.150K - EIAR.FIG.15.06

Size: A3
Scale: 1:150,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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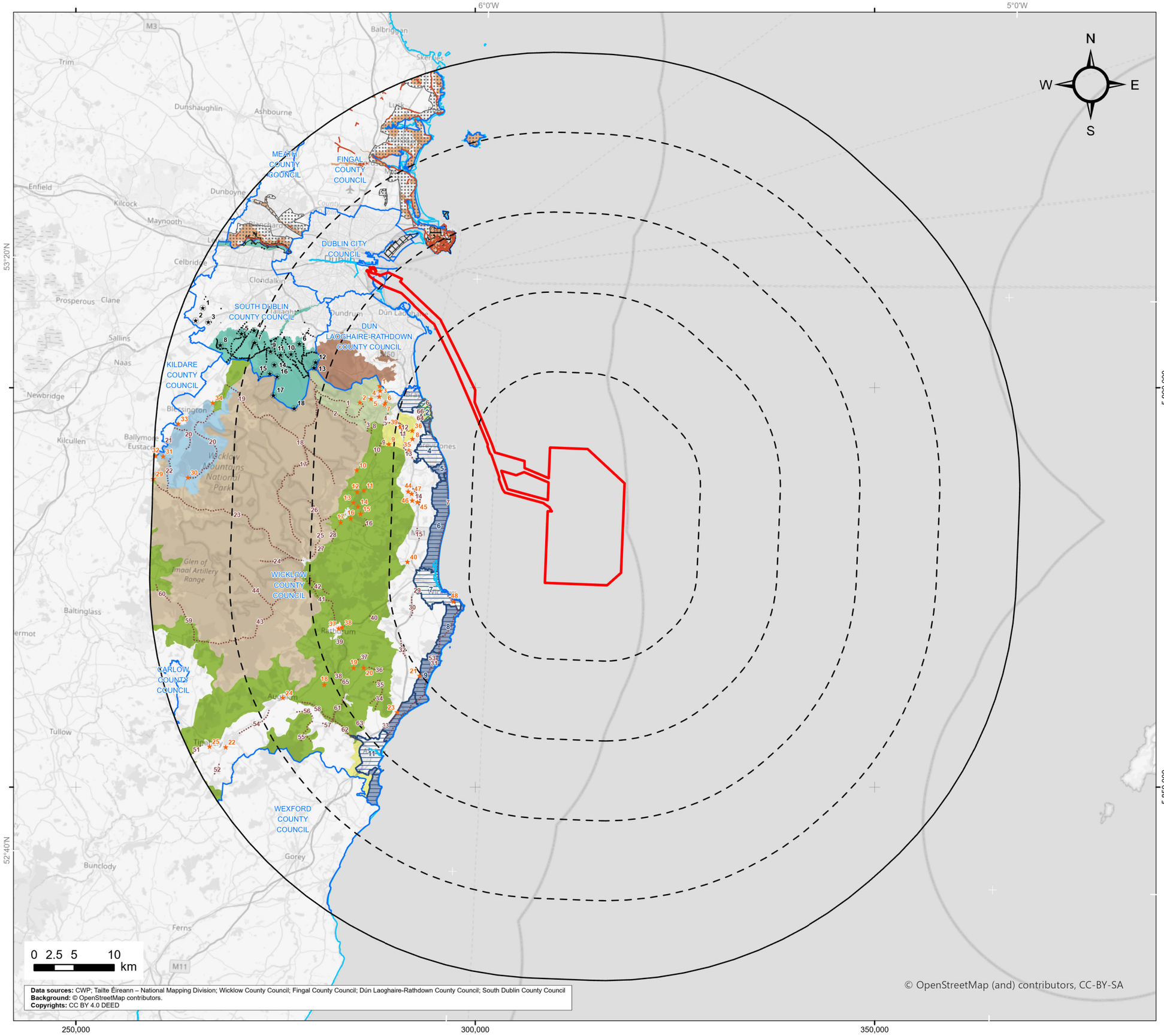

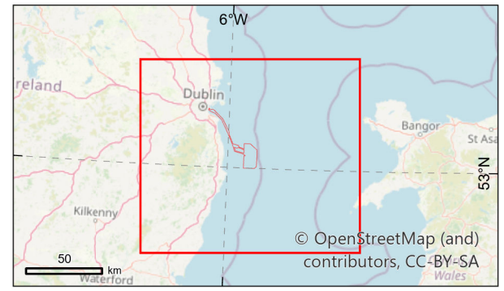

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- County Council/City Council (named on plan)
- Low water mark

National designations (Special Amenity Area - SAA)
- North Bull SAA
- Liffey Valley SAA
- Howth SAA
- Howth SAA buffer zone
- Bray Head SAA

County designations

Dun Laoghaire and Rathdown County Council
- High amenity areas (Zoning Objective G)

South Dublin County Council
- High amenity Dublin Mountains, Liffey Valley and Dodder Valley (Zoning Objective HA)
- South Dublin protected views
- South Dublin prospects

Wicklow County Council

Wicklow Areas of Outstanding Natural Beauty (AONB)
- The Mountain Uplands AONB
- The Bray Mountains Group AONB
- The Blessington Lakes Area AONB
- The North Eastern Valley / Glencree AONB
- Coastal Areas AONB

Wicklow Areas of high amenity value, Coastal cells, views and prospects of special amenity value or special interest
- Areas of high amenity value
- Coastal Cells*
- Wicklow views of special amenity value or special interest
- Wicklow prospects of special amenity value or special interest

Fingal County Council
- Highly sensitive landscapes
- High amenity zones
- Preserved views

Note:
* Coastal Cells are covered by policy objectives which seek to enhance the visual, recreational and natural amenities with specific reference in some Coastal Cells to the protection of listed views and prospects.

Data sources: CWP; Tailte Éireann – National Mapping Division; Wicklow County Council; Fingal County Council; Dún Laoghaire-Rathdown County Council; South Dublin County Council
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Contractor: LDA DESIGN www.lda-design.co.uk

Figure 15.7
Landscape planning designations
(Context scale 1:460,000)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-0656

Internal descriptive code: ALL - PAB..WF.BUFF.50km..LPDs.460K - EIAR.FIG.15.07

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

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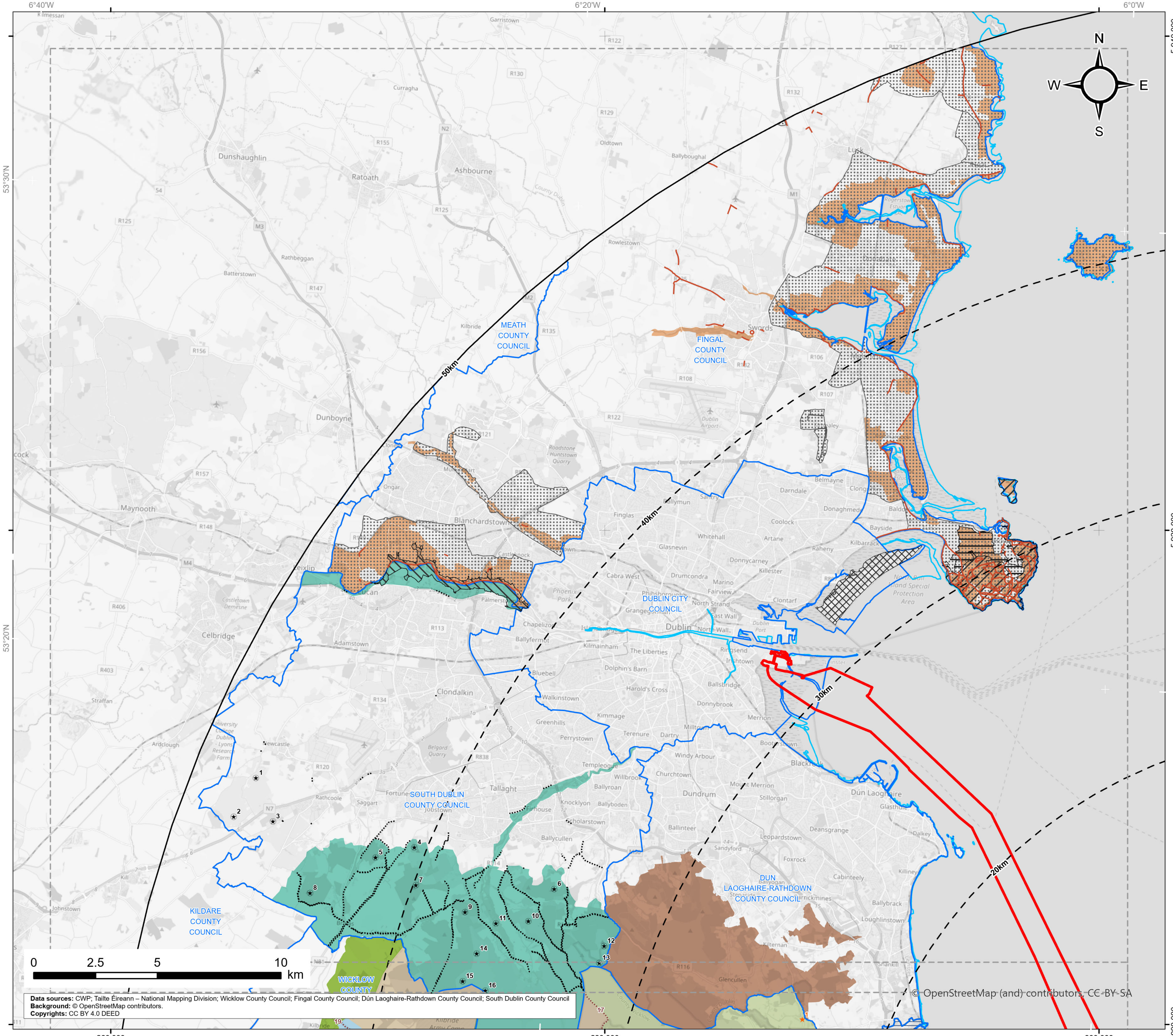

Data sources: CWP; Tailte Éireann – National Mapping Division; Wicklow County Council; Fingal County Council; Dún Laoghaire-Rathdown County Council; South Dublin County Council
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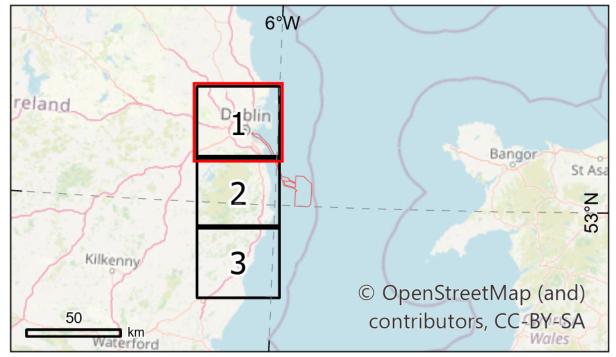

Planning Application Boundary (PAB)
SLVIA study area (50 km buffer of the array site / wind farm site)
10 km incremental buffers of array site / wind farm site
County Council/City Council (named on plan)
Low water mark

National designations (Special Amenity Area - SAA)
North Bull SAA
Liffey Valley SAA
Howth SAA
Howth SAA buffer zone

County designations

Dun Laoghaire and Rathdown County Council
High amenity areas (Zoning Objective G)

South Dublin County Council
High amenity Dublin Mountains, Liffey Valley and Dodder Valley (Zoning Objective HA)
South Dublin protected views
South Dublin prospects

Wicklow County Council

Wicklow Areas of Outstanding Natural Beauty (AONB)
The Mountain Uplands AONB
The Blessington Lakes Area AONB
The North Eastern Valley / Glencree AONB

Wicklow Areas of high amenity value, Coastal cells, views and prospects of special amenity value or special interest
Areas of high amenity value
Coastal Cells*
Wicklow views of special amenity value or special interest
Wicklow prospects of special amenity value or special interest

Fingal County Council
Highly sensitive landscapes
High amenity zones
Preserved views

Note:
* Coastal Cells are covered by policy objectives which seek to enhance the visual, recreational and natural amenities with specific reference in some Coastal Cells to the protection of listed views and prospects.

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Figure 15.8
Landscape planning designations (scale 1:150,000)

Page 1 of 3

CWP doc. number: CWP-LDA-ENG-08-01-MAB-1019

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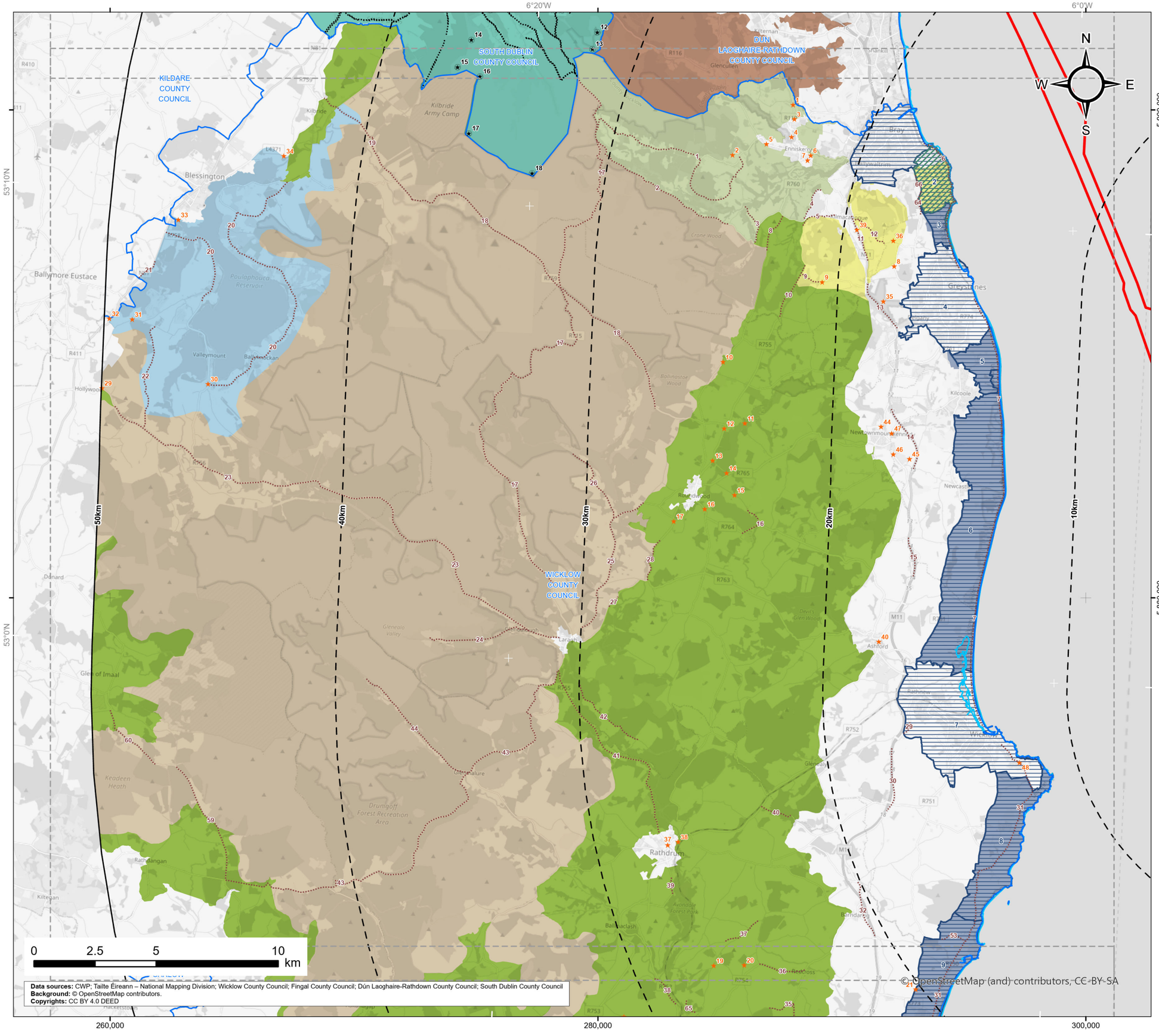

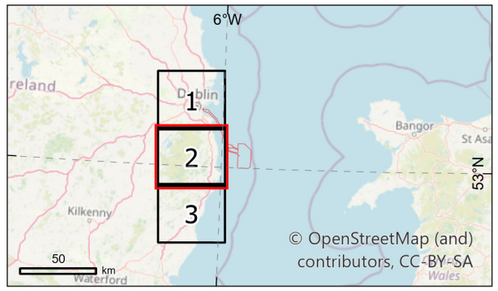

Planning Application Boundary (PAB)
SLVIA study area (50 km buffer of the array site / wind farm site)
10 km incremental buffers of array site / wind farm site
County Council/City Council (named on plan)
Low water mark

National designations (Special Amenity Area - SAA)
Bray Head SAA

County designations
Dun Laoghaire and Rathdown County Council
High amenity areas (Zoning Objective G)
South Dublin County Council
High amenity Dublin Mountains, Liffey Valley and Dodder Valley (Zoning Objective HA)
South Dublin protected views
South Dublin prospects
Wicklow County Council
Wicklow Areas of Outstanding Natural Beauty (AONB)
The Mountain Uplands AONB
The Bray Mountains Group AONB
The Blessington Lakes Area AONB
The North Eastern Valley / Glencree AONB
Coastal Areas AONB
Wicklow Areas of high amenity value, Coastal cells, views and prospects of special amenity value or special interest
Areas of high amenity value
Coastal Cells*
Wicklow views of special amenity value or special interest
Wicklow prospects of special amenity value or special interest

Note:
* Coastal Cells are covered by policy objectives which seek to enhance the visual, recreational and natural amenities with specific reference in some Coastal Cells to the protection of listed views and prospects.

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Figure 15.8
Landscape planning designations (scale 1:150,000)

Page 2 of 3

CWP doc. number: CWP-LDA-ENG-08-01-MAB-1019

Internal descriptive code: ONSH.ALL - PAB..WF.BUFF.50km..LPDs.150K - EIAR.FIG.15.08

Size: A3
Scale: 1:150,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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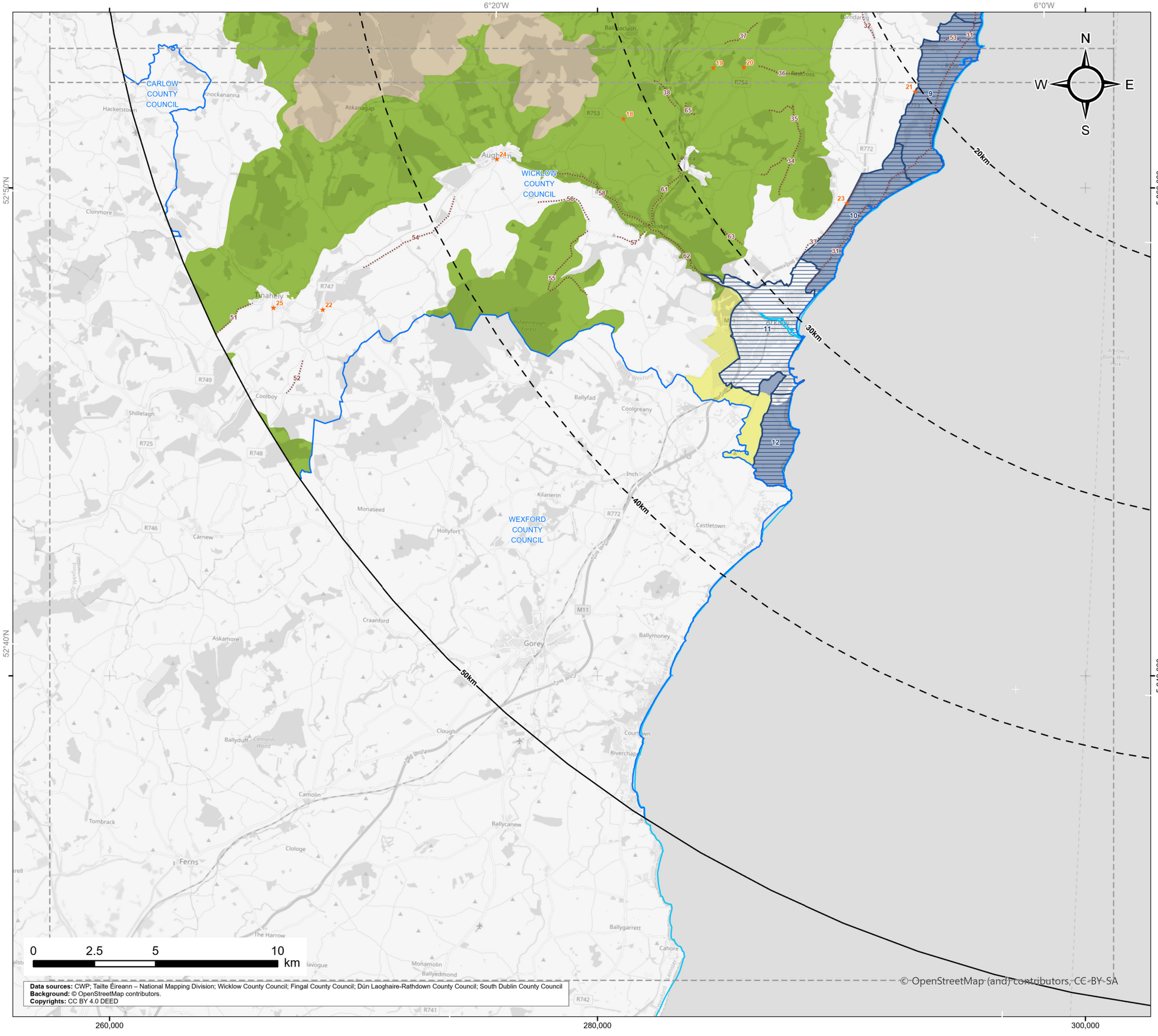

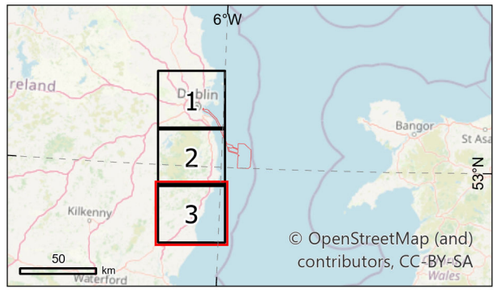

- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- County Council/City Council (named on plan)
- Low water mark

County designations
Wicklow County Council
Wicklow Areas of Outstanding Natural Beauty (AONB)
- The Mountain Uplands AONB
- The Bray Mountains Group AONB
- Coastal Areas AONB

Wicklow Areas of high amenity value, Coastal cells, views and prospects of special amenity value or special interest
- Areas of high amenity value
- Coastal Cells*
- Wicklow views of special amenity value or special interest
- Wicklow prospects of special amenity value or special interest

Note:
* Coastal Cells are covered by policy objectives which seek to enhance the visual, recreational and natural amenities with specific reference in some Coastal Cells to the protection of listed views and prospects.

Data sources: CWP; Tailte Éireann – National Mapping Division; Wicklow County Council; Fingal County Council; Dún Laoghaire-Rathdown County Council; South Dublin County Council
Background: © OpenStreetMap contributors.
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Figure 15.8 Landscape planning designations (scale 1:150,000)

Page 3 of 3

CWP doc. number: CWP-LDA-ENG-08-01-MAB-1019

Internal descriptive code: ONSH.ALL - PAB..WF.BUFF.50km..LPDs.150K - EIAR.FIG.15.08

Size: A3 *Scale:* 1:150,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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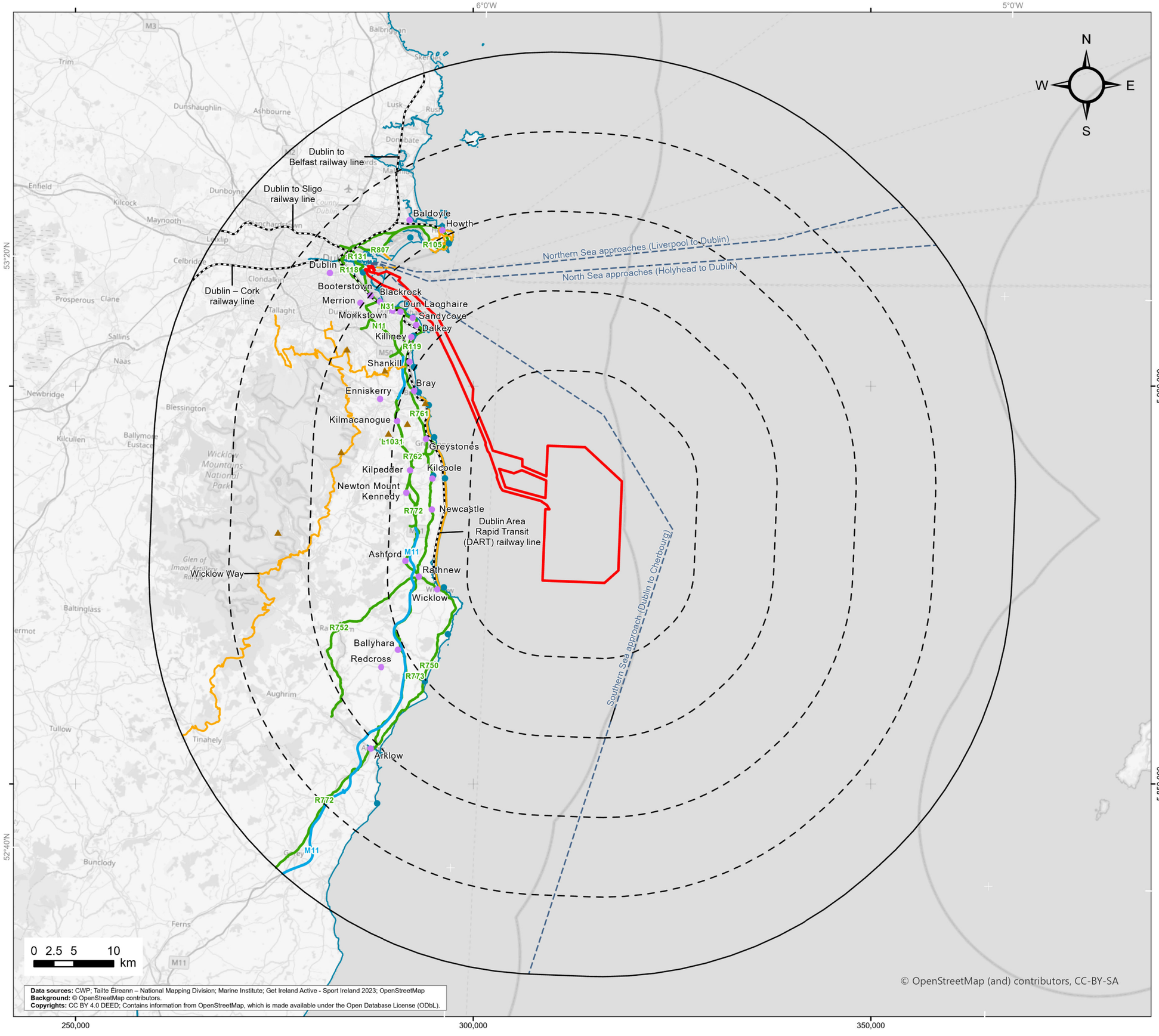

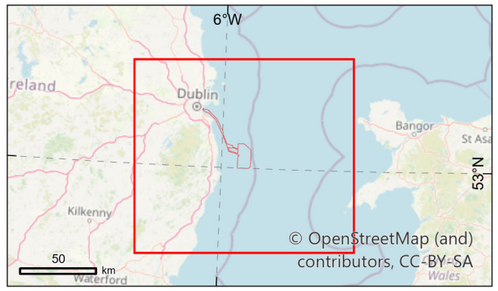

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Settlements (refer to Main Named Settlements in Appendix 15.8)
- National ferry routes
- Rail routes
- Key walking routes

Selected visual receptors (named on map)

- Motorway
- Roads - Other
- Mountains / Hilltops
- Visitor / Tourist attractions

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Figure 15.9
Visual receptors
(Context scale 1:460,000)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-0657

Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km - VISUAL.RECEPTORS.460K - EIAR.FIG.15.09

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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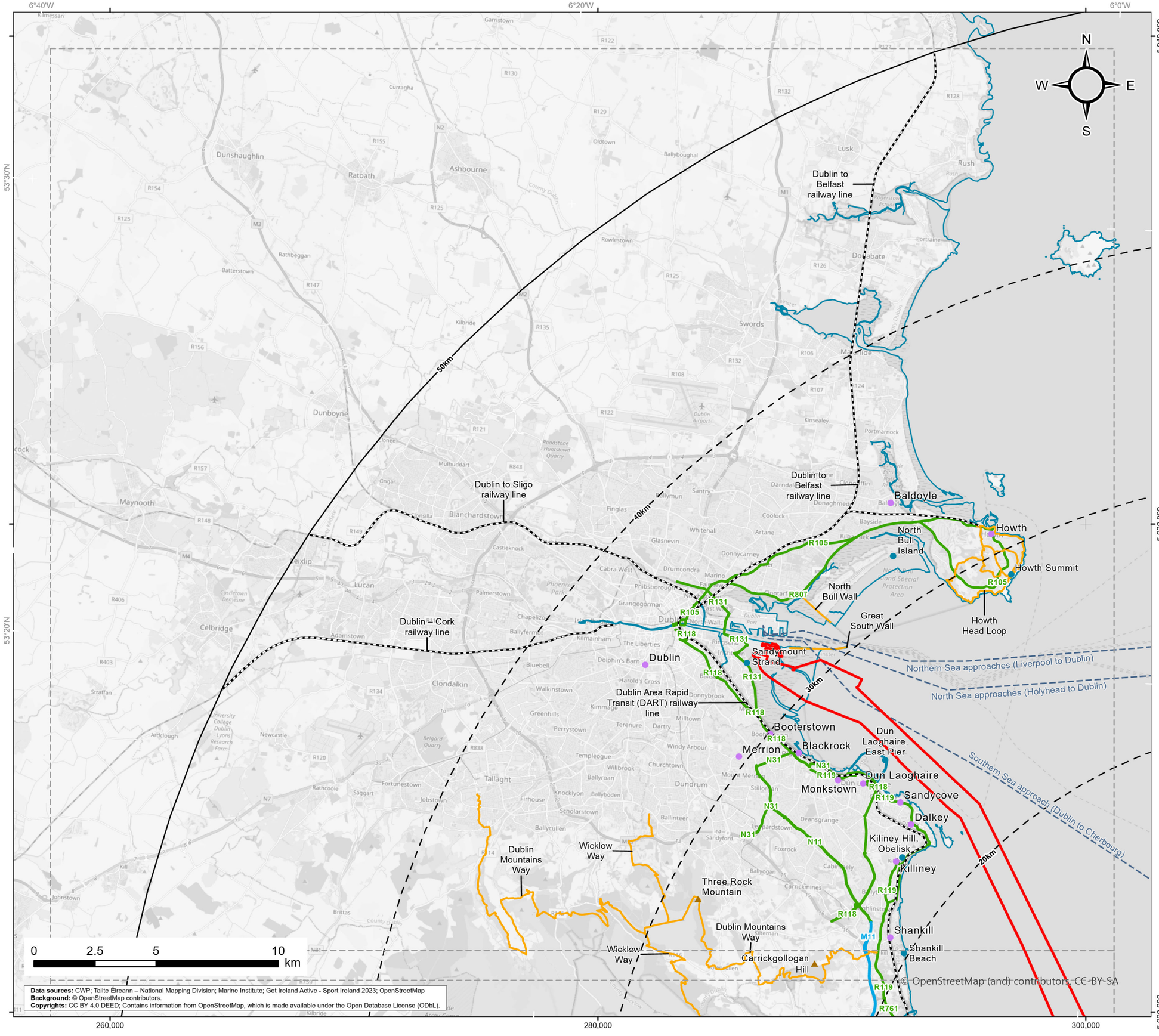

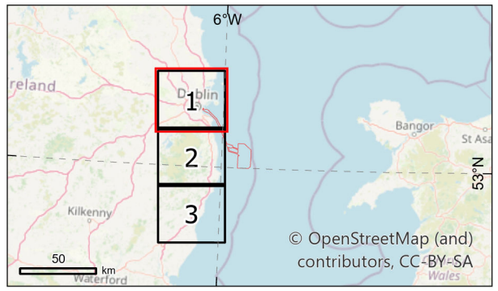

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Settlements (refer to Main Named Settlements in Appendix 15.8)
- National ferry routes
- Rail routes
- Key walking routes

Selected visual receptors (named on map)

- Motorway
- Roads - Other
- Mountains / Hilltops
- Visitor / Tourist attractions

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Figure 15.10 Visual receptors (scale 1:150,000)

CWP doc. number: CWP-LDA-ENG-08-01-MAB-1020

Internal descriptive code: ONSH.ALL - PAB..WF.BUFF.50km.. VISUAL.RECEPTORS.150k - EIAR.FIG.15.10

Size: A3 *Scale:* 1:150,000 *CRS:* EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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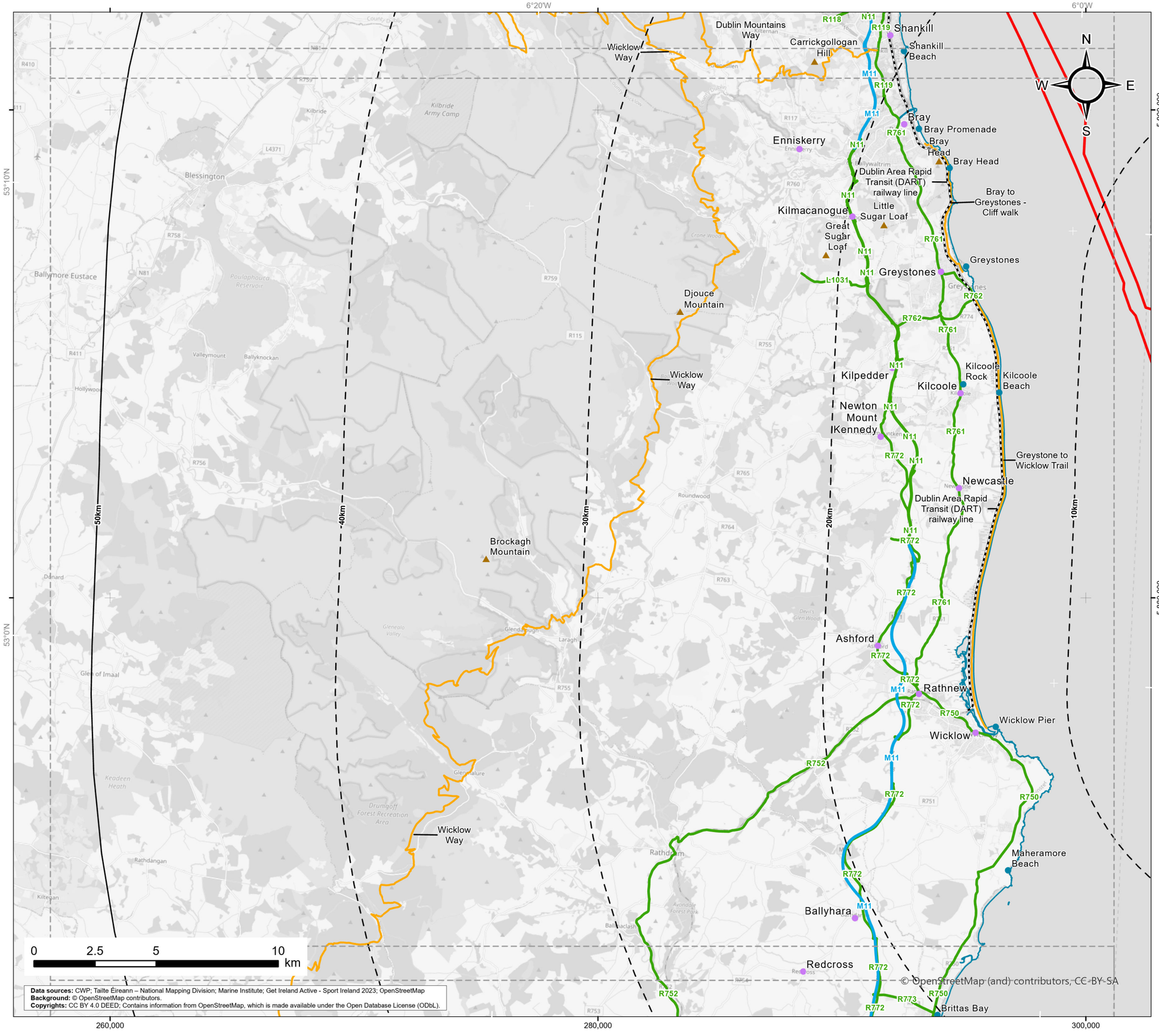

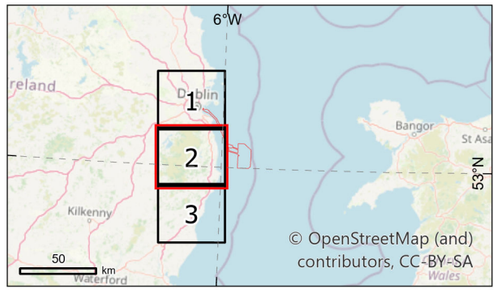

Data sources: CWP; Tailte Éireann – National Mapping Division; Marine Institute; Get Ireland Active - Sport Ireland 2023; OpenStreetMap
Background: © OpenStreetMap contributors.
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- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Settlements (refer to Main Named Settlements in Appendix 15.8)
- Rail routes
- Key walking routes

Selected visual receptors (named on map)

- Motorway
- Roads - Other
- Mountains / Hilltops
- Visitor / Tourist attractions

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Figure 15.10 Visual receptors (scale 1:150,000)

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CWP doc. number: CWP-LDA-ENG-08-01-MAB-1020

Internal descriptive code: ONSH.ALL - PAB..WF.BUFF.50km.. VISUAL.RECEPTORS.150k - EIAR.FIG.15.10

Size: A3

Scale: 1:150,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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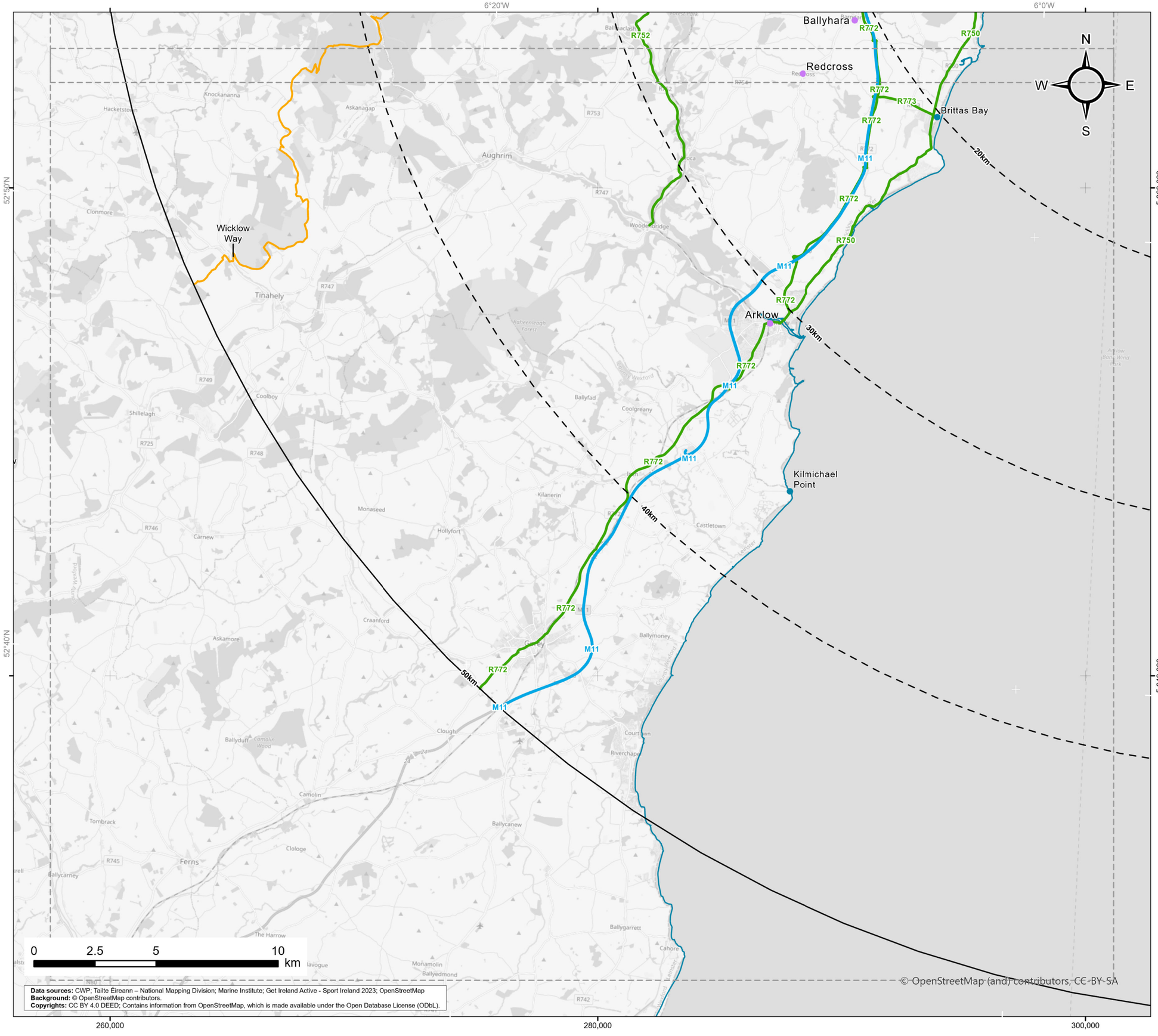

Data sources: CWP; Tailte Éireann – National Mapping Division; Marine Institute; Get Ireland Active - Sport Ireland 2023; OpenStreetMap
Background: © OpenStreetMap contributors.
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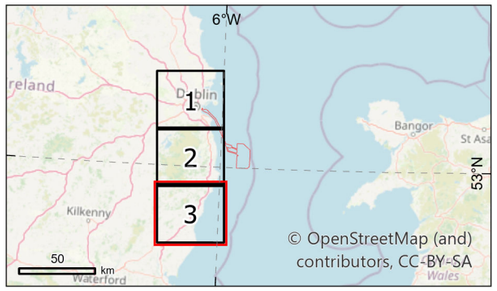

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Settlements (refer to Main Named Settlements in Appendix 15.8)
- Key walking routes

Selected visual receptors (named on map)

- Motorway
- Roads - Other
- Visitor / Tourist attractions

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Figure 15.10 Visual receptors (scale 1:150,000)

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CWP doc. number: CWP-LDA-ENG-08-01-MAB-1020

Internal descriptive code: ONSH.ALL - PAB..WF.BUFF.50km.., VISUAL.RECEPTORS.150k - EIAR.FIG.15.10

Size: A3

Scale: 1:150,000

CRS: EPSG 25830

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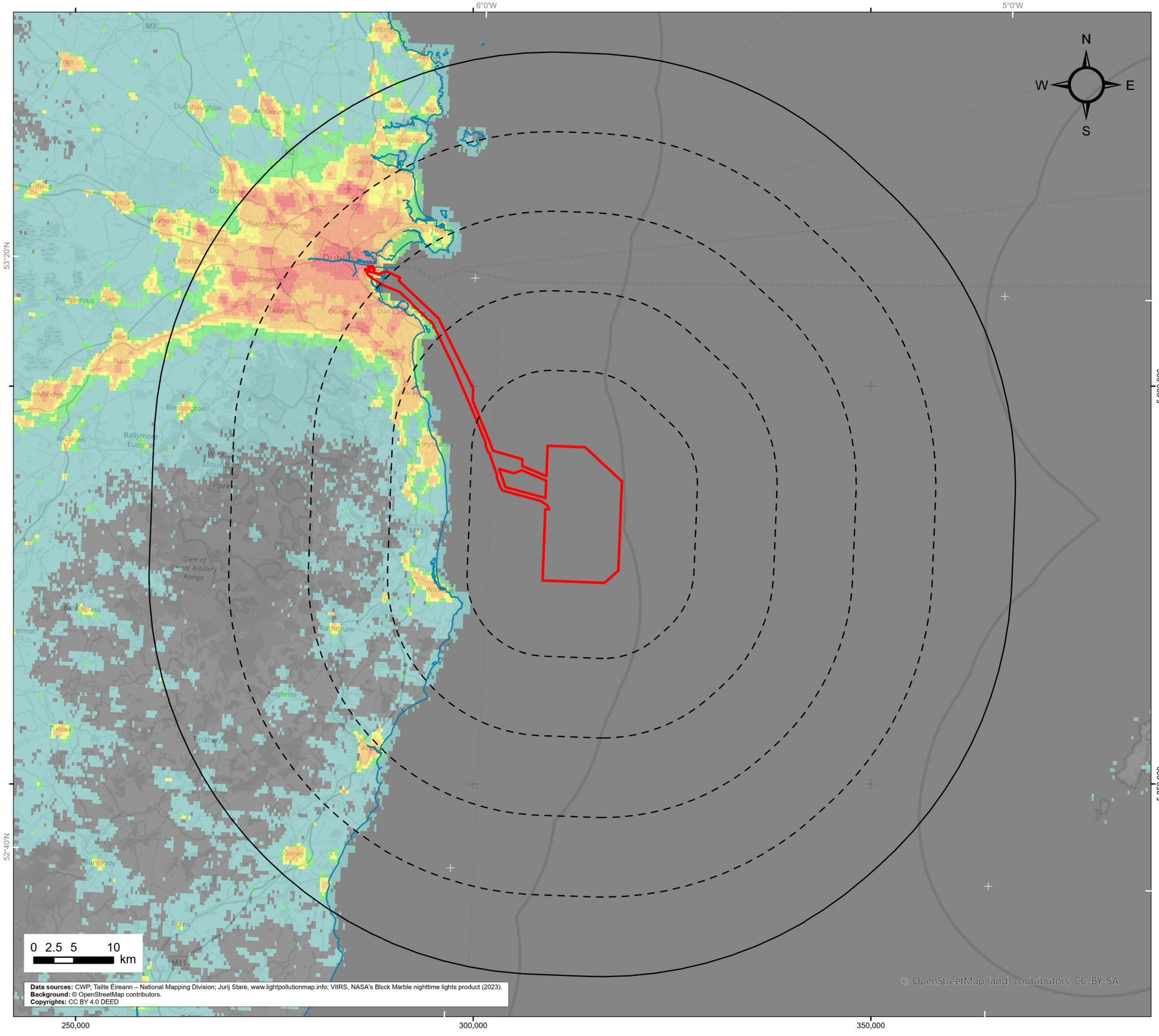

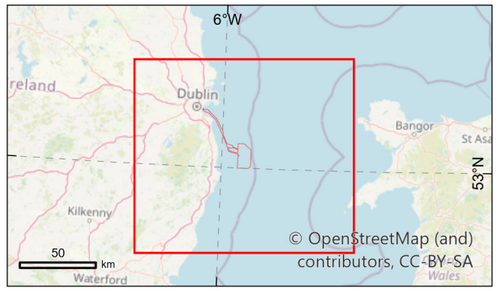

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark

Night-time light pollution

Radiance (10^{-9} W / cm^2 * sr)

- < 0.25
- 0.40 - 1
- 1 - 3
- 3 - 6
- 6 - 20
- 20 - 40
- > 40

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Figure 15.11
Night-time light pollution

CWP doc. number: CWP-LDA-ENG-08-01-MAP-0658

Internal descriptive code: ALL - PAB..WF.BUFF.50km..NTLP - EIAR.FIG.15.11

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

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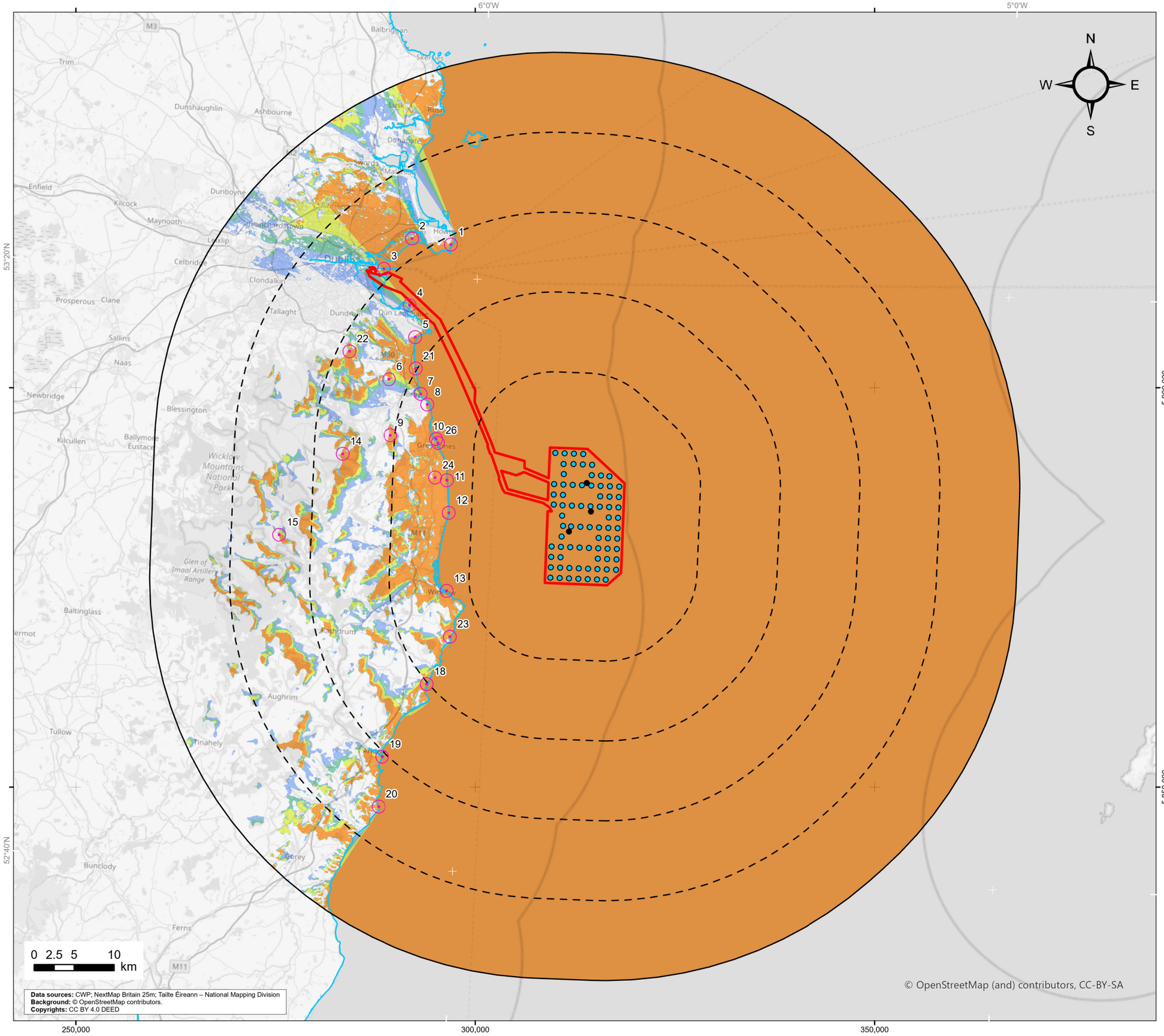

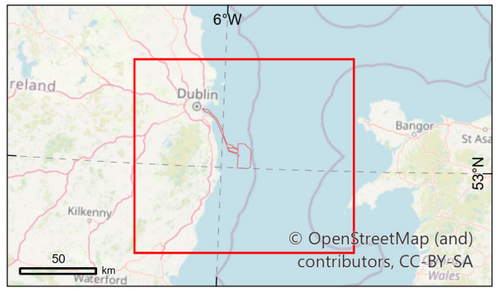

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option A location
- Offshore Substation Structure (OSS) location
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (bare earth)

Number of turbines theoretically visible to blade tip height:

- 1 - 20
- 20 - 38
- 38 - 57
- 57 - 75

ZTV notes:
* ZTV produced for 75 turbines of 288m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography only, which has been included in the model with the heights obtained from Nextmap 25.
The model does not take into account any above ground features and therefore gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be noticeably less than that suggested by this plan and visibility from principal settlements is likely to be possible from peripheral areas only.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on Nextmap 25 DTM data and has a 25m^2 resolution.

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Figure 15.12a
Blade tip height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option A (bare earth)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1021

Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km..ZTV.TIP.A.DTM.. ONSH.VPs - - EIAR.FIG.15.12a

Size: A3 *Scale:* 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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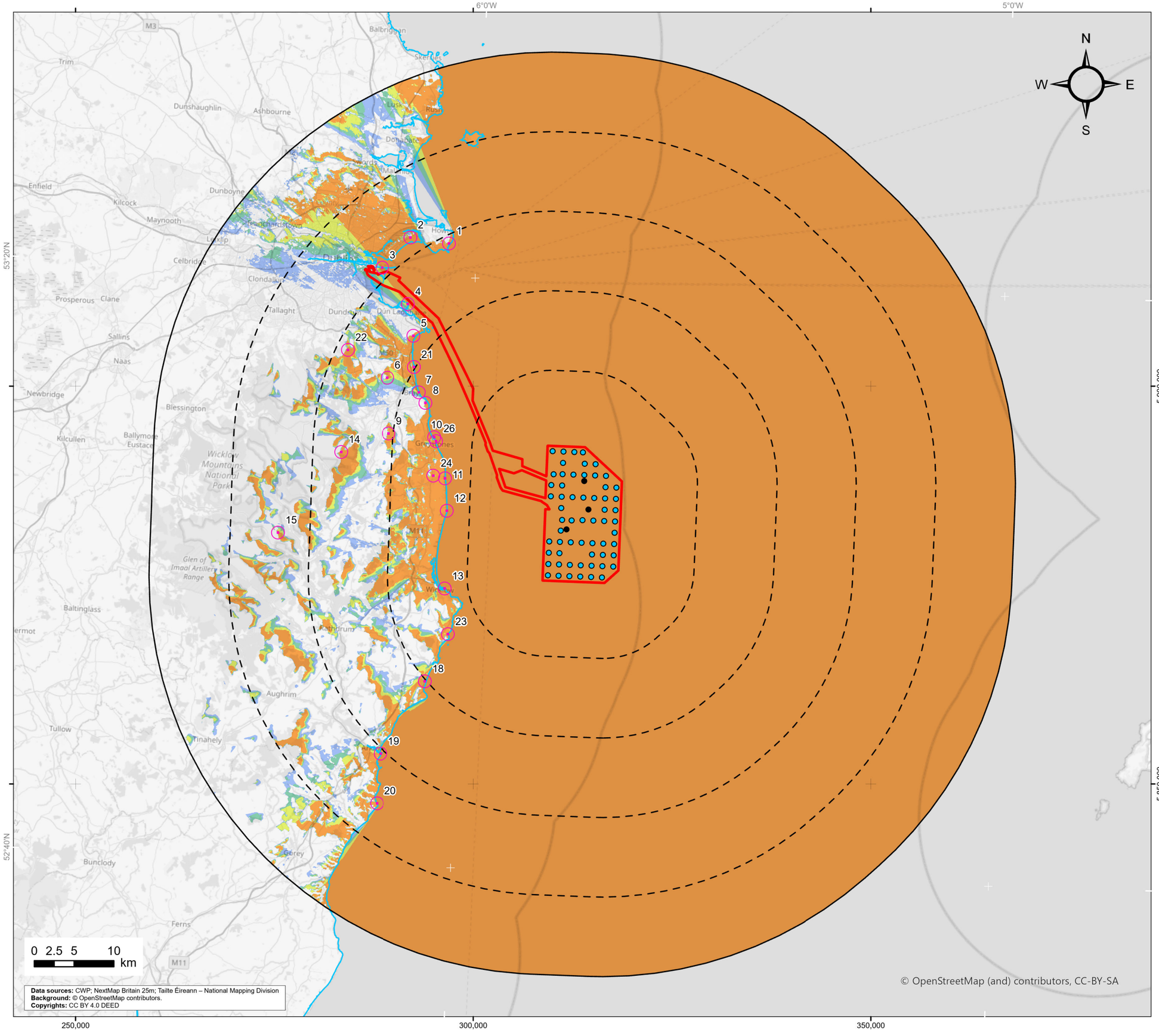

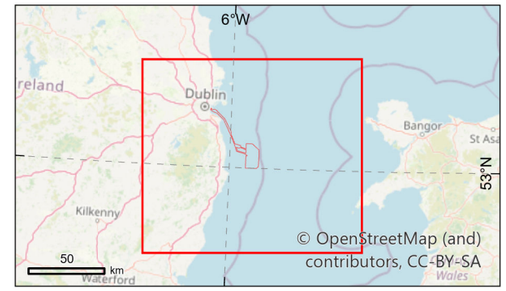

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- Offshore Substation Structure (OSS) location
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (bare earth)

Number of turbines theoretically visible to blade tip height:

- 1 - 15
- 15 - 30
- 30 - 45
- 45.- 60

ZTV notes:
* ZTV produced for 60 turbines of 314m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography only, which has been included in the model with the heights obtained from Nextmap 25.
The model does not take into account any above ground features and therefore gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be noticeably less than that suggested by this plan and visibility from principal settlements is likely to be possible from peripheral areas only.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on Nextmap 25 DTM data and has a 25m^2 resolution.

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Figure 15.12b
Blade tip height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option B (bare earth)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1022

Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km.. ZTV.TIP.B.DTM..ONSH.VPs - - EIAR.FIG.15.12b

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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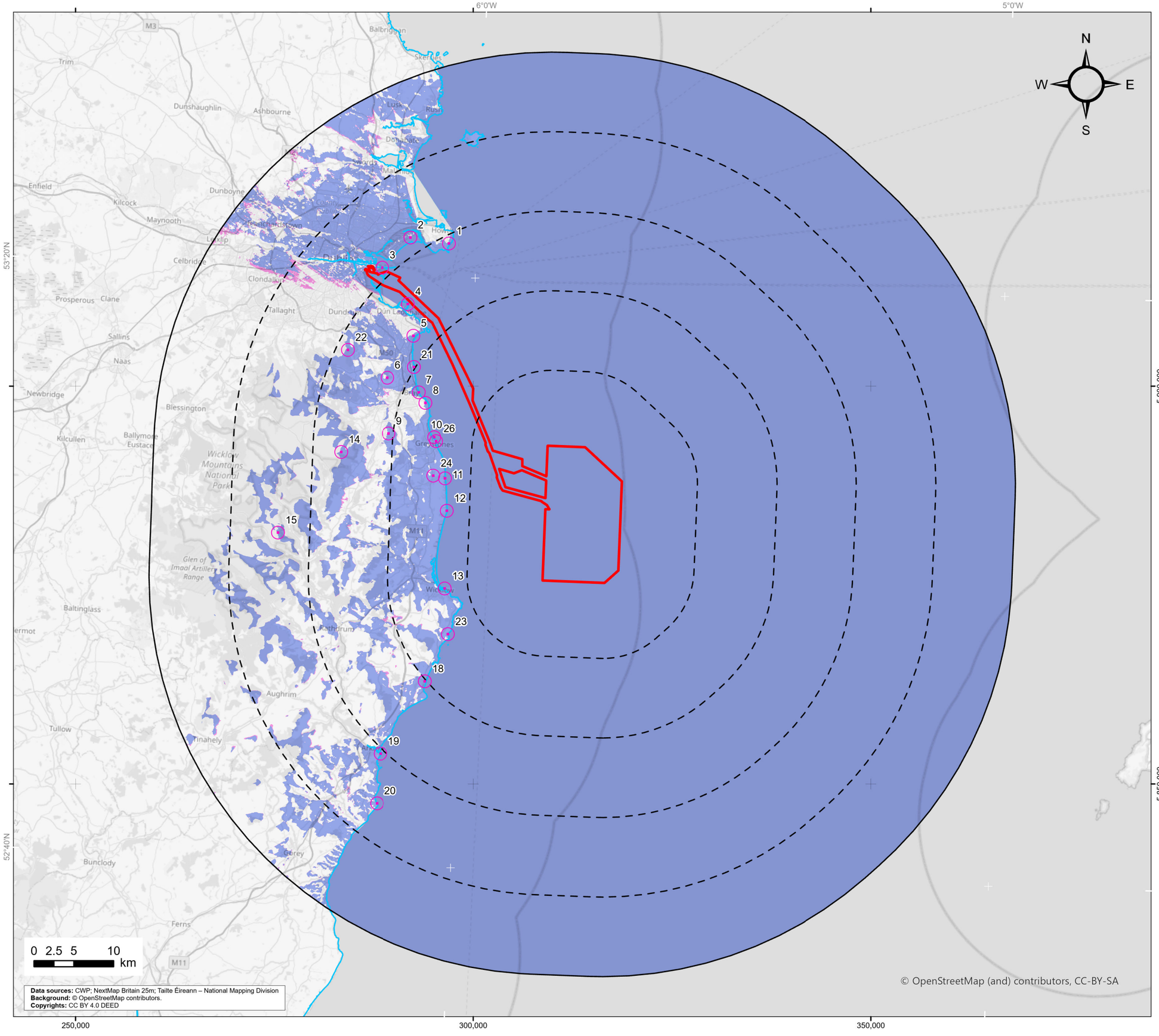

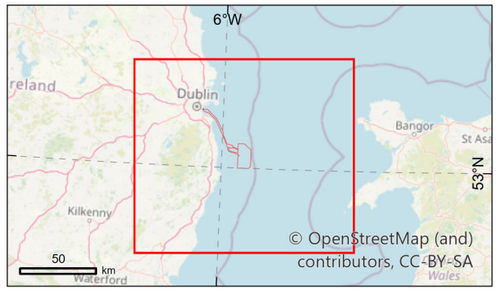

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (bare earth)

Option A | Option B

ZTV notes:
* ZTV produced for 75 option A turbines of 288m to blade tip height and 60 option B turbines at 314 m to blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography only, which has been included in the model with the heights obtained from Nextmap 25.
The model does not take into account any above ground features and therefore gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be noticeably less than that suggested by this plan and visibility from principal settlements is likely to be possible from peripheral areas only.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on Nextmap 25 DTM data and has a 25m^2 resolution.

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Figure 15.12c
Comparative tip height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) options A & B (bare earth)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1023

Internal descriptive code:	*Size:*	*CRS:*
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	Scale: 1:460,000	

Rev.	*Description*	*Date*	*By*	*Chk'd*	*App'd*
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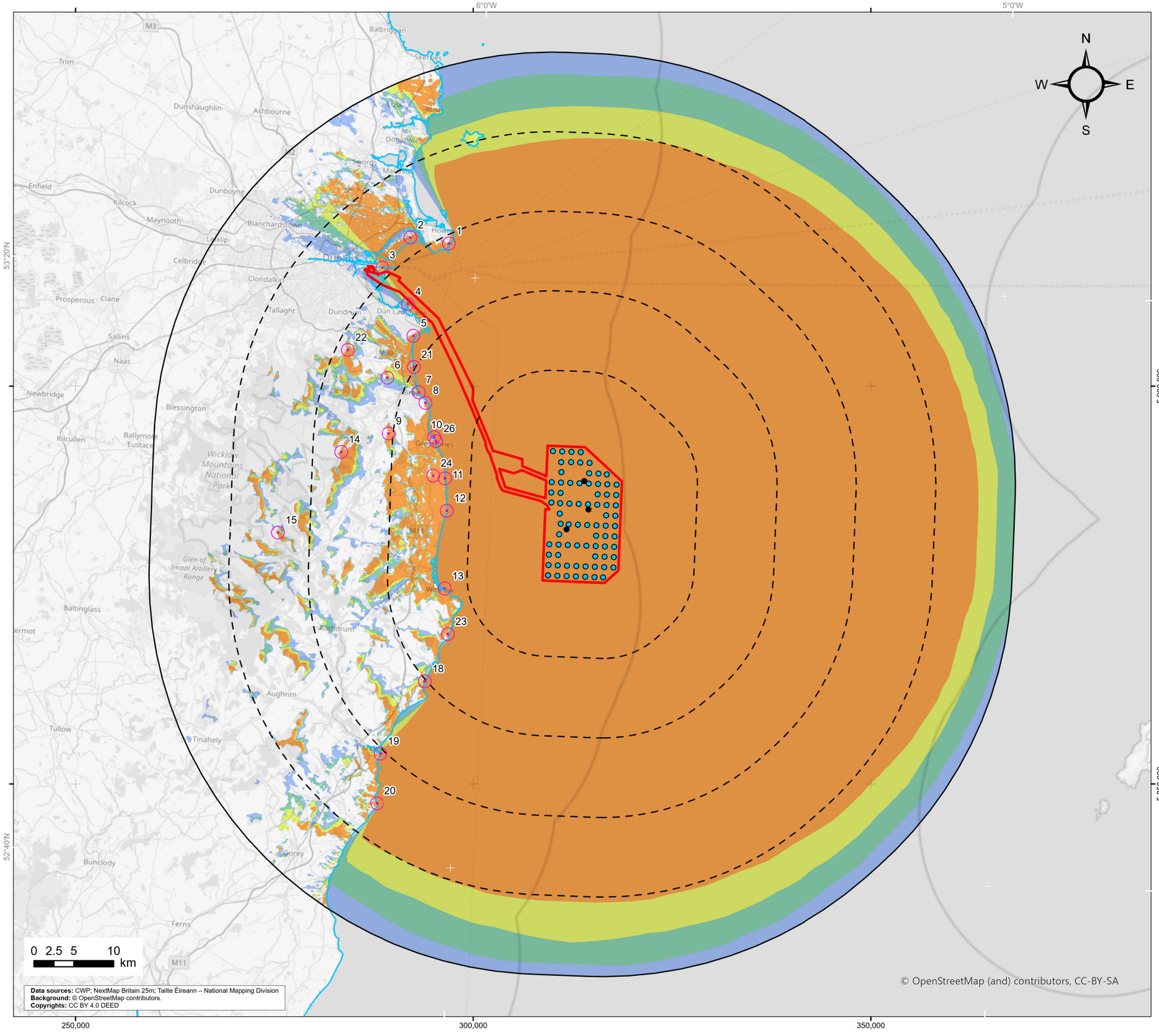

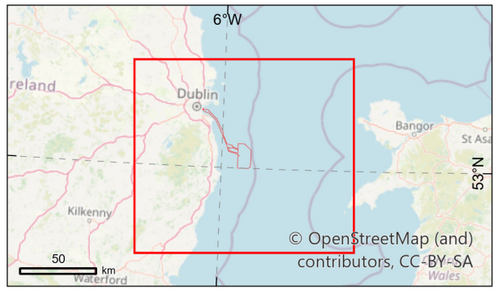

- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option A location
- Offshore Substation Structure (OSS) location
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (bare earth)

Number of turbines theoretically visible to hub height:

- 1 - 20
- 20 - 38
- 38 - 57
- 57 - 75

ZTV notes:
* ZTV produced for 75 turbines of 163m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography only, which has been included in the model with the heights obtained from Nextmap 25.
The model does not take into account any above ground features and therefore gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be noticeably less than that suggested by this plan and visibility from principal settlements is likely to be possible from peripheral areas only.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on Nextmap 25 DTM data and has a 25m^2 resolution.

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Figure 15.12d
Hub height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option A (bare earth)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1024

Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km.. ZTV.HUB.A.DTM..ONSH.VPs - - EIAR.FIG.15.12d

Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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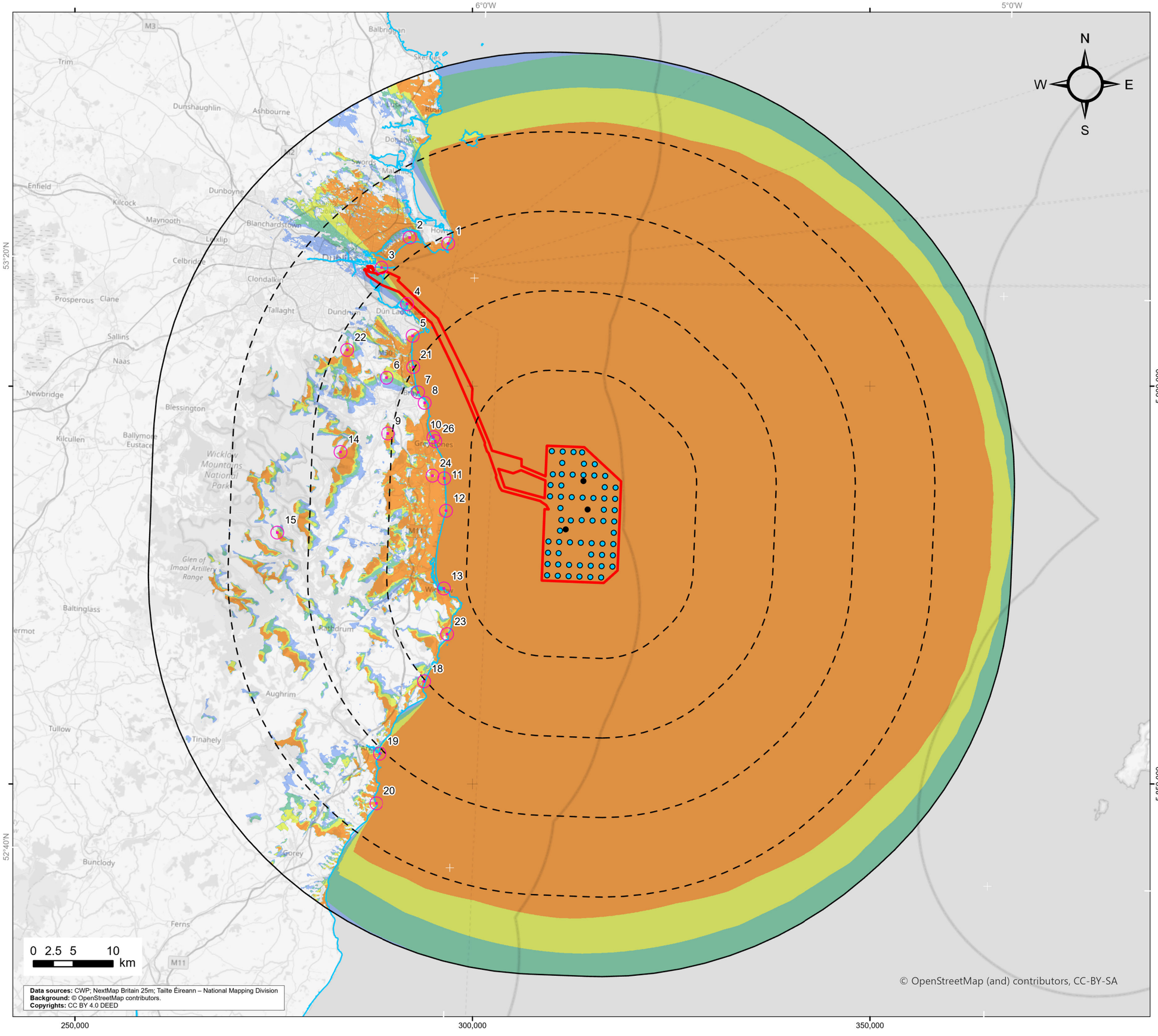
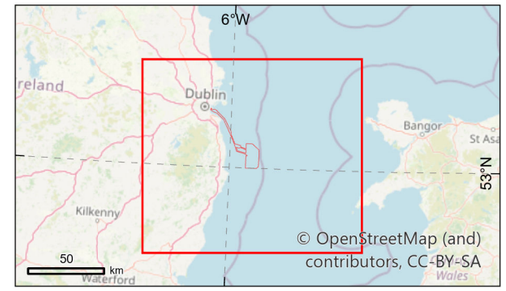




- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- Offshore Substation Structure (OSS) location
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (bare earth)

Number of turbines theoretically visible to hub height:

- 1 - 15
- 15 - 30
- 30 - 45
- 45 - 60

ZTV notes:
* ZTV produced for 60 turbines of 176m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography only, which has been included in the model with the heights obtained from Nextmap 25.
The model does not take into account any above ground features and therefore gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be noticeably less than that suggested by this plan and visibility from principal settlements is likely to be possible from peripheral areas only.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on Nextmap 25 DTM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDĀDESIGN www.lda-design.co.uk

Figure 15.12e
Hub height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option B (bare earth)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1025

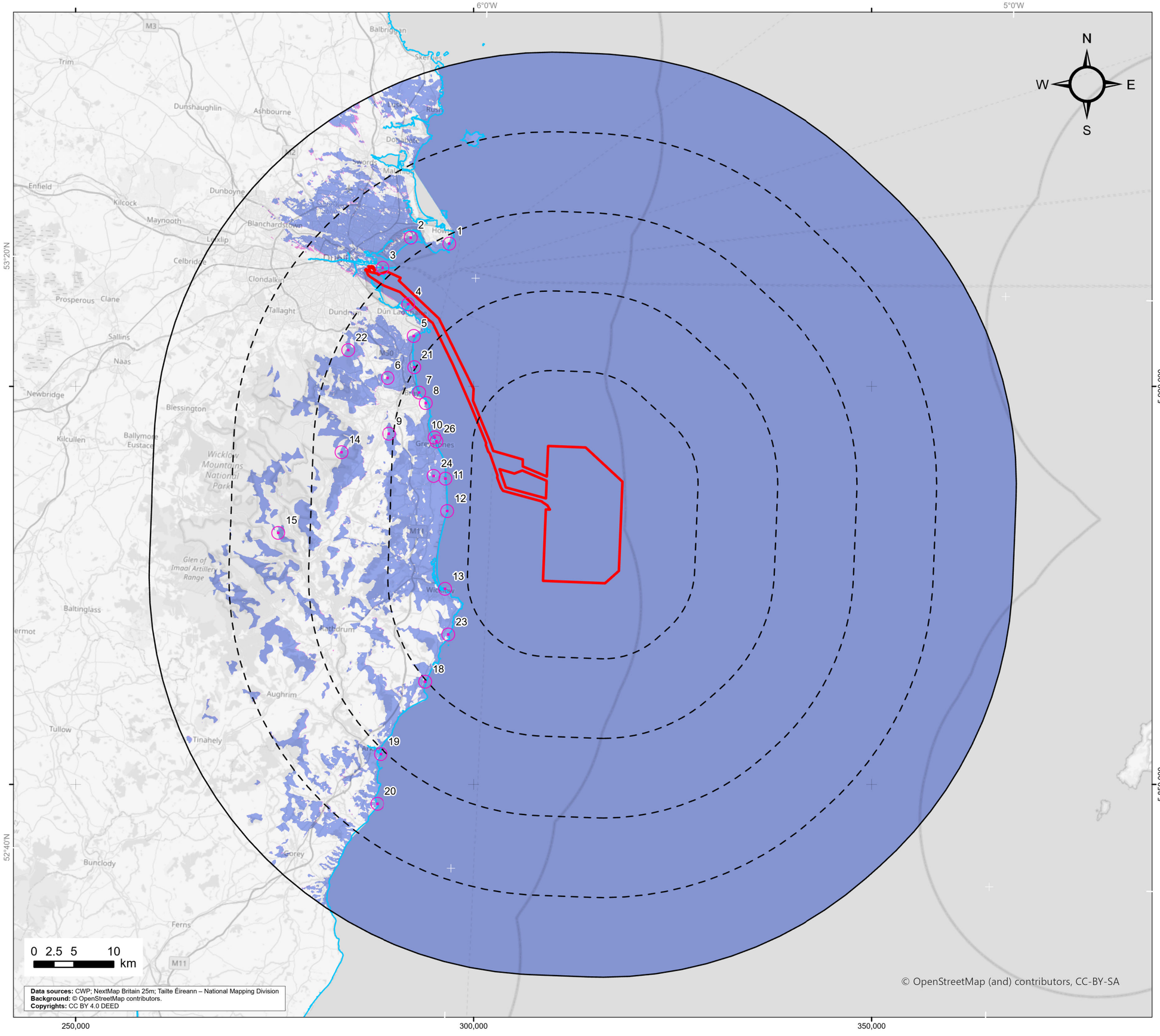
Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km.. ZTV.HUB.B.DTM..ONSH.VPs - - EIAR.FIG.15.12e

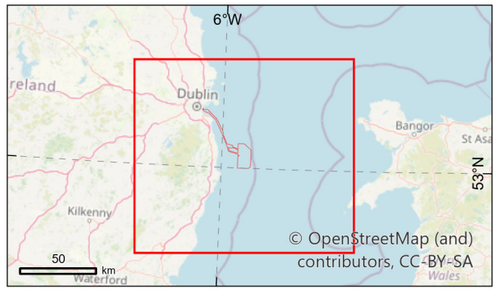
Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (bare earth)

Option A | Option B

ZTV notes:
* ZTV produced for 75 option A turbines of 163m to hub height and 60 option B turbines at 176m to hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography only, which has been included in the model with the heights obtained from Nextmap 25.
The model does not take into account any above ground features and therefore gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be noticeably less than that suggested by this plan and visibility from principal settlements is likely to be possible from peripheral areas only.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on Nextmap 25 DTM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDĀDESIGN www.lda-design.co.uk

Figure 15.12f
Comparative hub height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) options A & B (bare earth)

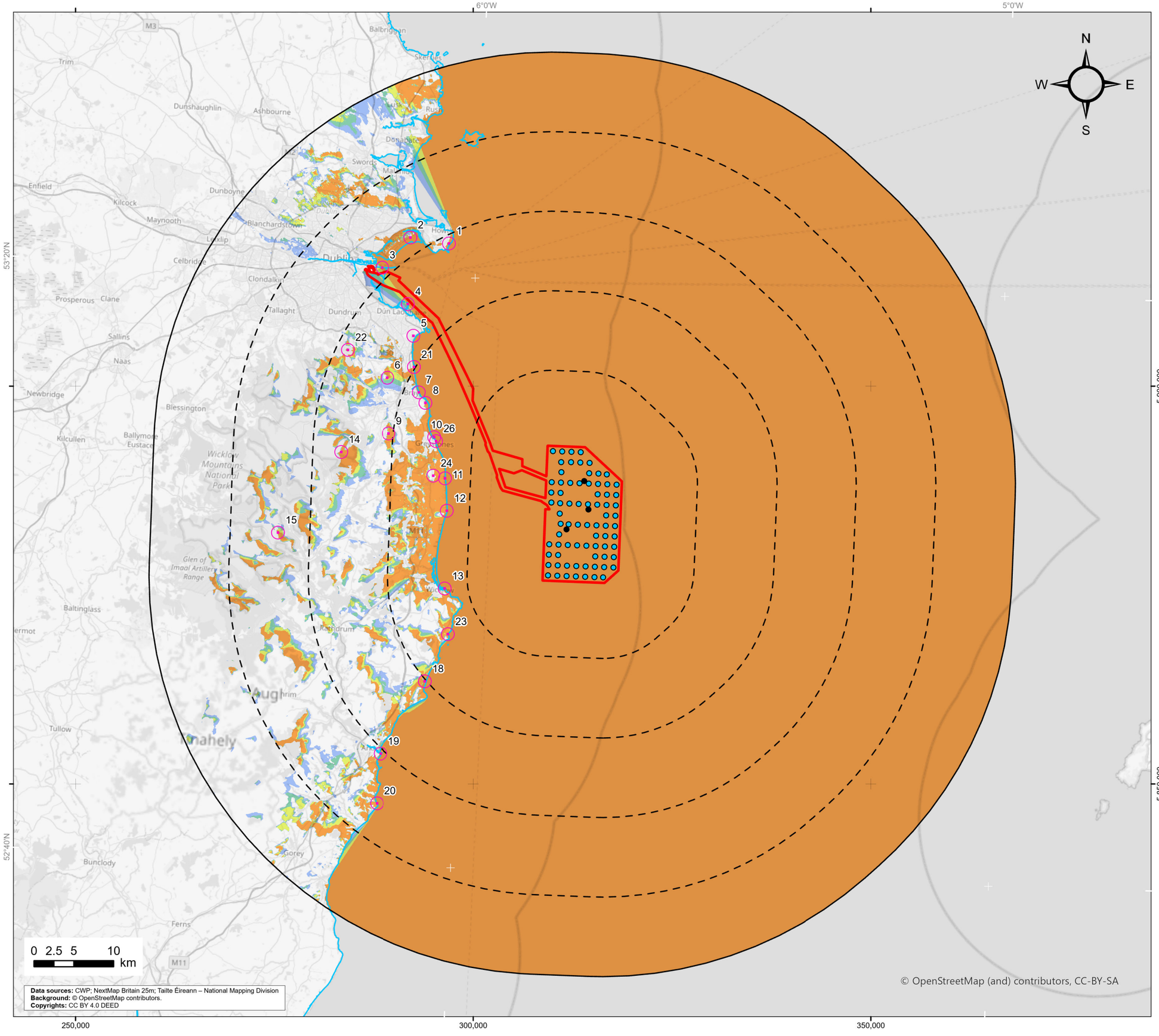
CWP doc. number: CWP-LDA-ENG-08-01-MAP-1026

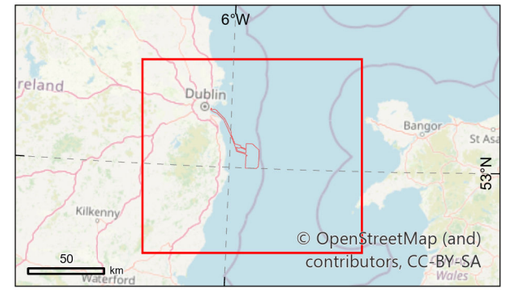
Internal descriptive code: ALL - PAB..WF.FLB.BUFF.50km.. ZTV.HUBs.A.B.DTM..ONSH.VPs - - EIAR.FIG.15.12f

Size: A3 *Scale:* 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





Planning Application Boundary (PAB)

SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm site

Low water mark

Wind Turbine Generator (WTG) option A location

Offshore Substation Structure (OSS) location

Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)

Number of turbines theoretically visible to blade tip height:

- 1 - 20
- 20 - 38
- 38 - 57
- 57 - 75

ZTV notes:
* ZTV produced for 75 turbines of 288m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDA DESIGN www.lda-design.co.uk

Figure 15.13a
Blade tip height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option A (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1006

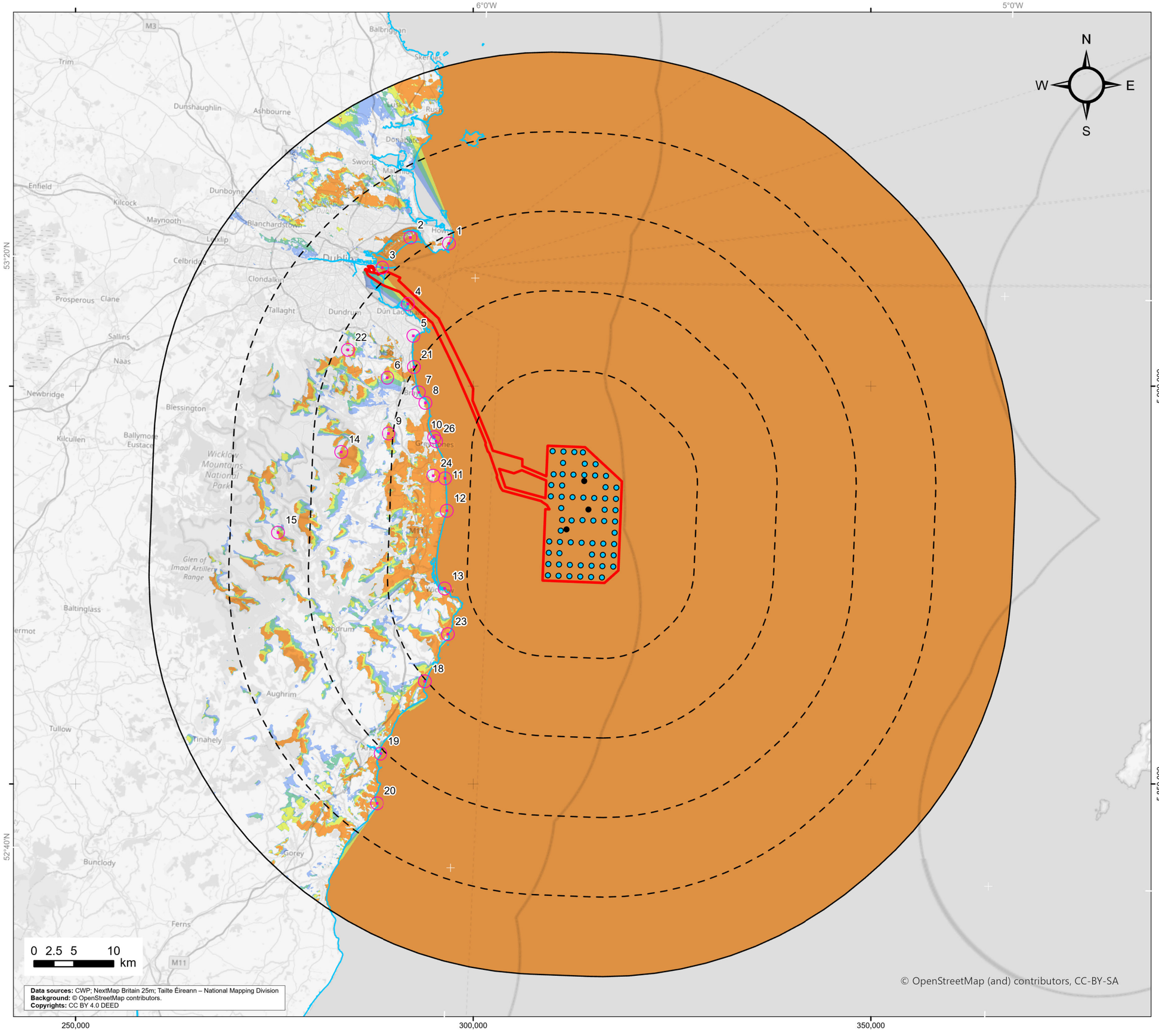
Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km.. ZTV.TIP.A.DSM..ONSH.VPs - - EIAR.FIG.15.13a

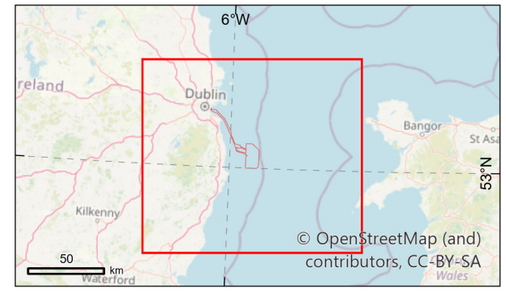
Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- Offshore Substation Structure (OSS) location
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)

Number of turbines theoretically visible to blade tip height:

- 1 - 15
- 15 - 30
- 30 - 45
- 45 - 60

ZTV notes:
* ZTV produced for 60 turbines of 314m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDA DESIGN www.lda-design.co.uk

Figure 15.13b
Blade tip height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option B (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1007

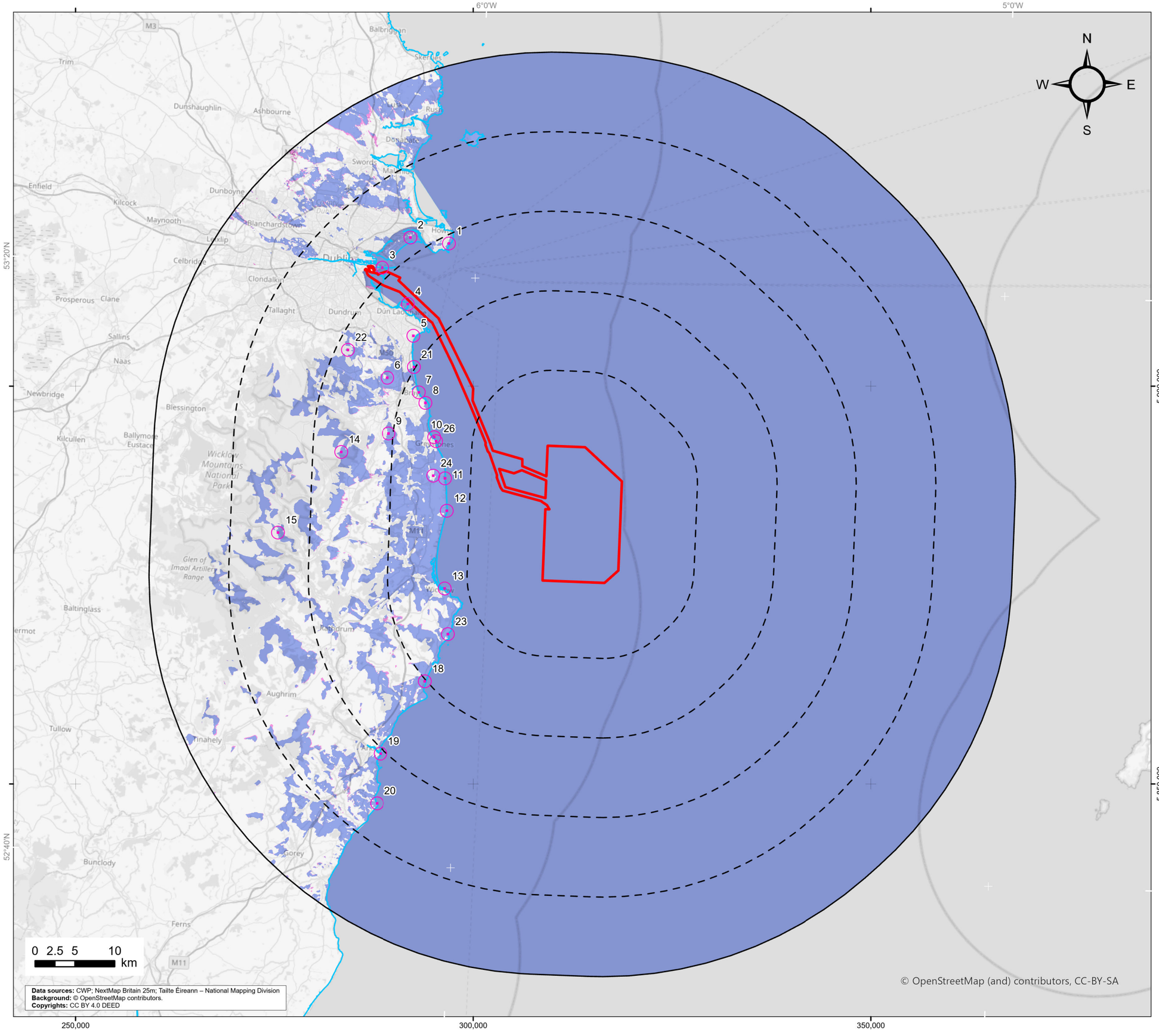
Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km.. ZTV.TIP.B.DSM. ONSH.VPs - - EIAR.FIG.15.13b

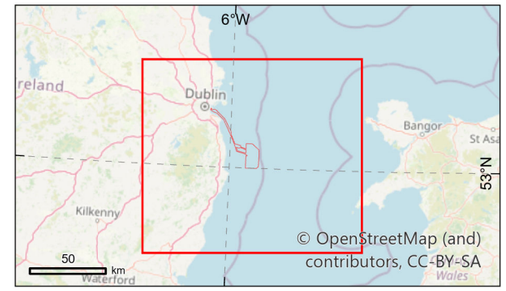
Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





Planning Application Boundary (PAB)

SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm site

Low water mark

Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)

Option A / Option B

ZTV notes:
* ZTV produced for 75 option A turbines of 288m to blade tip height and 60 option B turbines at 314m to blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDĀDESIGN www.lda-design.co.uk

Figure 15.13c
Comparative blade tip height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) options A & B (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1008

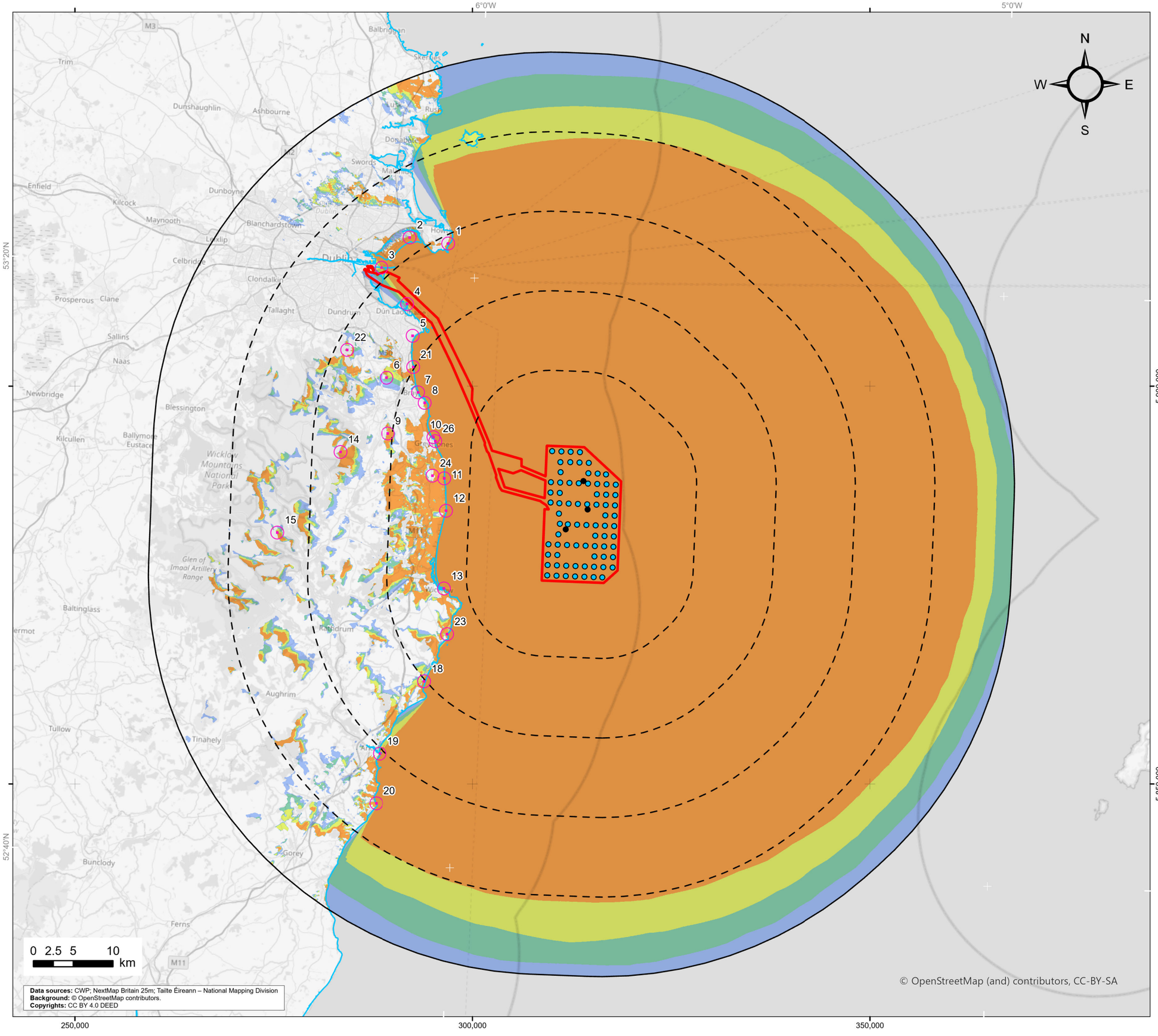
Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km.. ZTV.TIPs.A.B.DSM..ONSH.VPs - - EIAR.FIG.15.13c

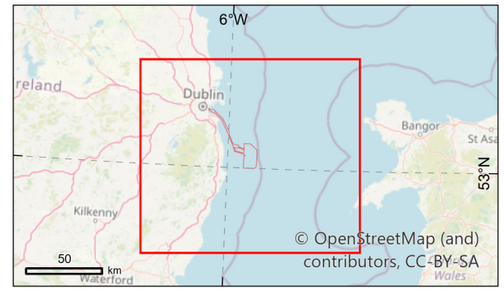
Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





ZTV notes:
* ZTV produced for 75 turbines of 163m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

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Project: Codling Wind Park

Contractor: LDĀDESIGN www.lda-design.co.uk

Figure 15.13d
Hub height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option A (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1009

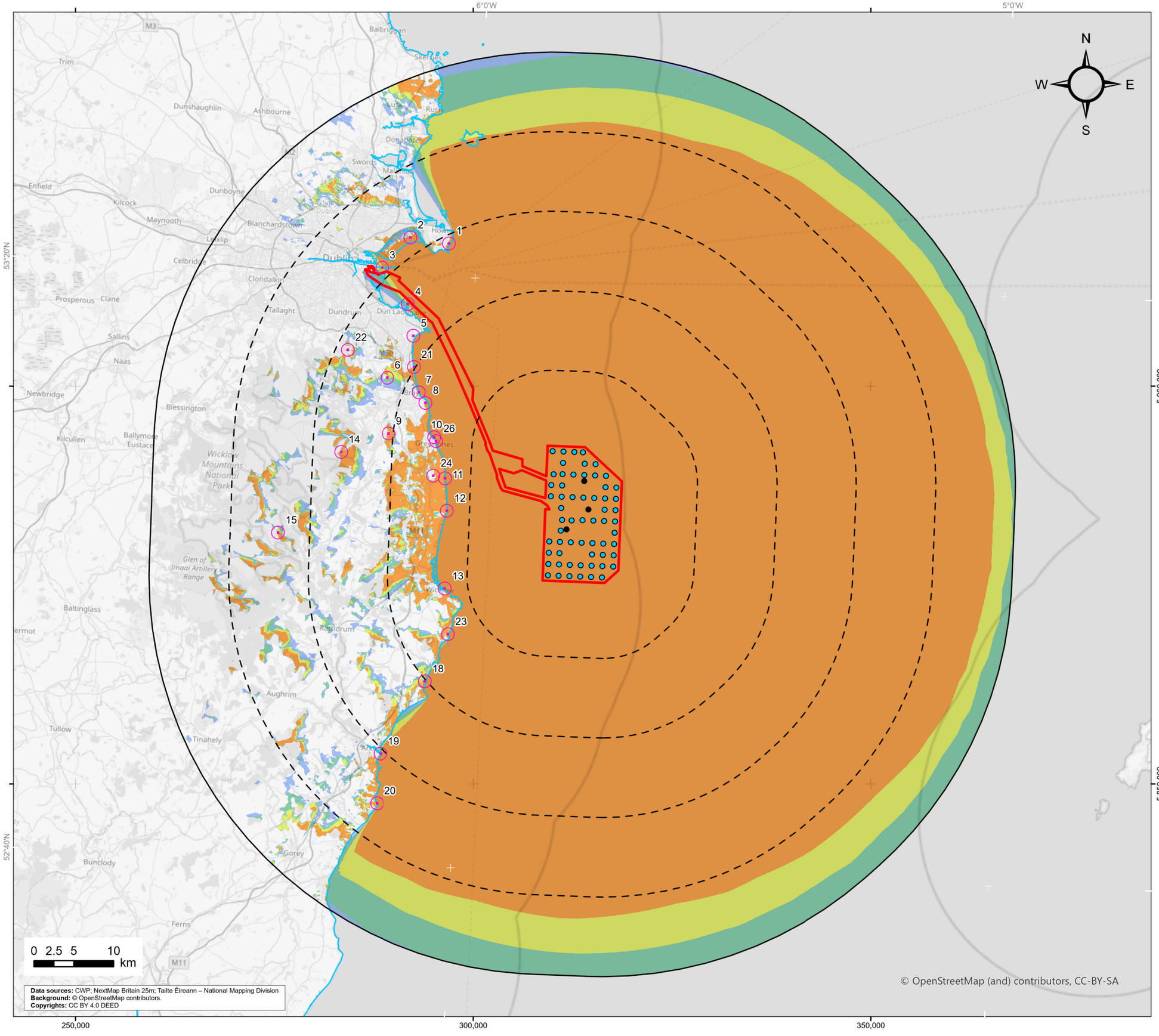
Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km.. ZTV.HUB.A.DSM..ONSH.VPs - - EIAR.FIG.15.13d

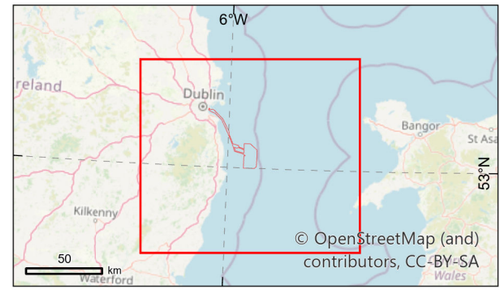
Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- Offshore Substation Structure (OSS) location
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (obstructed)
Number of turbines theoretically visible to hub height:

- 1 - 15
- 15 - 30
- 30 - 45
- 45 - 60

ZTV notes:
* ZTV produced for 60 turbines of 176m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDĀDESIGN www.lda-design.co.uk

Figure 15.13e
Hub height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option B (obstructed)

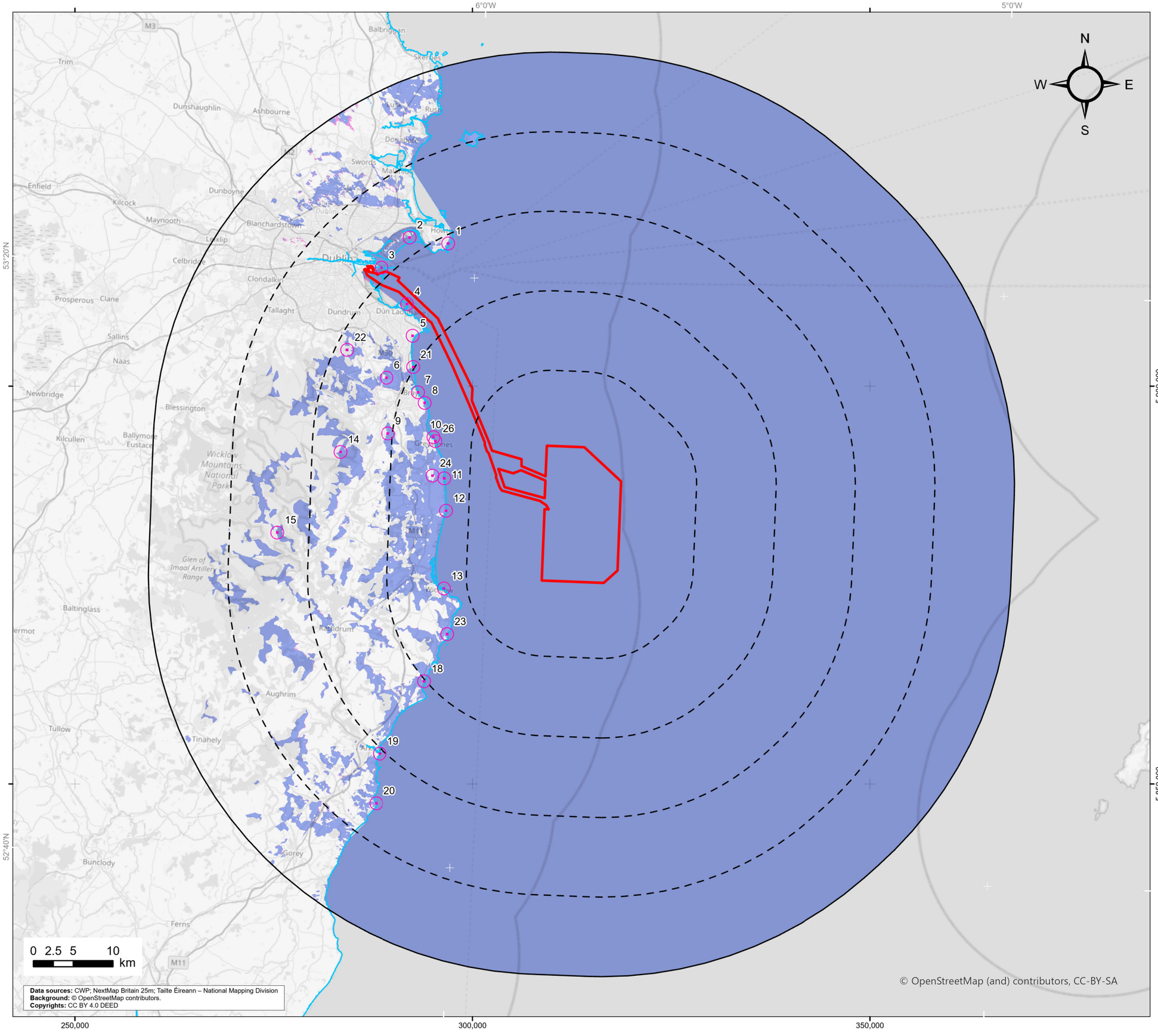
CWP doc. number: CWP-LDA-ENG-08-01-MAP-1010

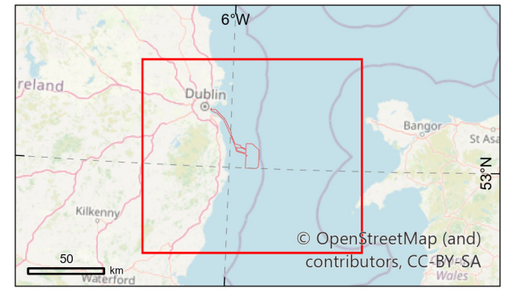
Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km.. HUB.HEIGHT.ZTV.OPT.B.DSM.. ONSH.VIEWPOINTS - - EIAR.FIG.15.13e

Size: A3
Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (obstructed)

Option A | Option B

ZTV notes:
* ZTV produced for 75 option A turbines of 163m to hub height and 60 option B turbines at 176m to hub height .
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDĀDESIGN www.lda-design.co.uk

Figure 15.13f
Comparative hub height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) options A & B (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1011

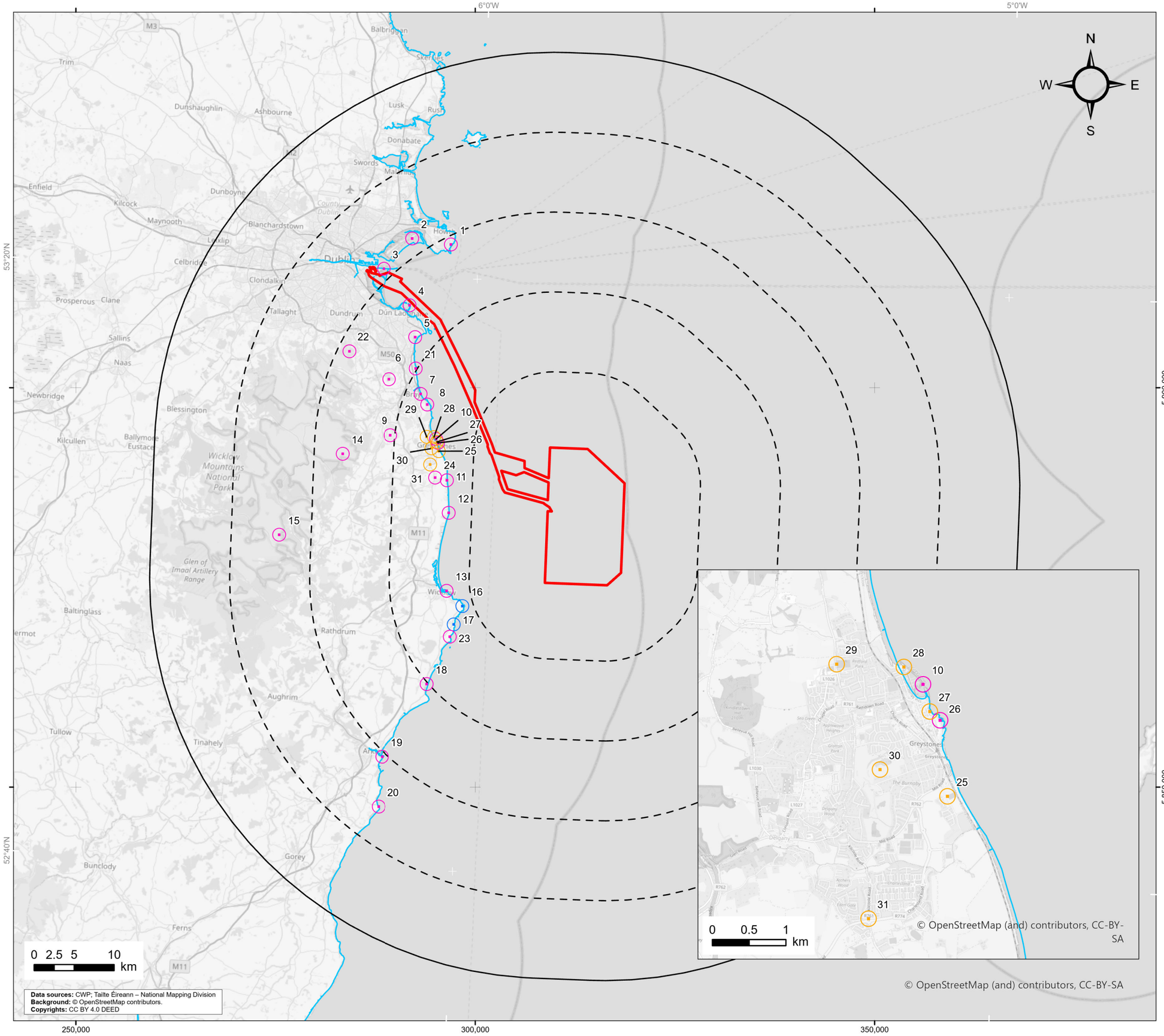
Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km.. ZTV.HUBs.A.B.DSM..ONSH.VPs - - EIAR.FIG.15.13f

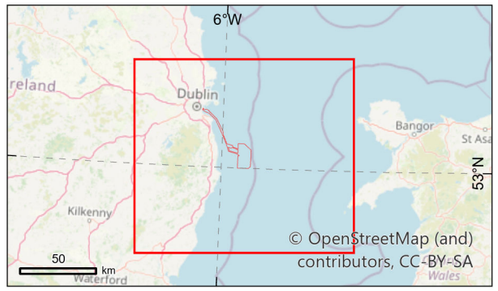
Size: A3

Scale: 1:460,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Viewpoints selected for the SLVIA
- Viewpoints selected but scoped out of the SLVIA based on issues with public access (viewpoint 16/17)
- Viewpoints selected but scoped out of the SLVIA on the basis that the views were either not publicly accessible and/or reflected a similar angle of view and visual receptor group to the viewpoints already chosen (Greystones 25, 27-31 omitted.)

codling wind park	*Project:* Codling Wind Park	*Contractor:* LDĀDESIGN www.lda-design.co.uk

Figure 15.14
Onshore viewpoint locations

CWP doc. number: CWP-LDA-ENG-08-01-MAP-0659

Internal descriptive code: ALL - PAB..WF.BUFF.50KM..ONSH.VIEWPOINTS - EIAR.FIG.15.14

Size: A3 *Scale:* 1:460,000 *CRS:* EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL

7°0'W
6°0'W
5°0'W
53°20'N
52°40'N
300,000
400,000
5,900,000

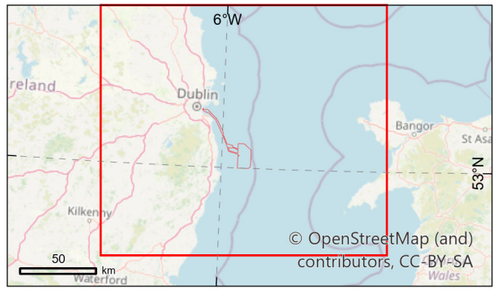
N
W
E
S

Oriel
North Irsh Sea Array
Dublin Array
Arklow Bank Phase 2
Arklow Bank Phase 1

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
18
19
20
21
22
23
24
26

0 2.5 5 10 km

Data sources: CWP; Tailte Éireann – National Mapping Division
Background: © OpenStreetMap contributors.
Copyrights: CC BY 4.0 DEED



- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark

Indicative WTG locations of nearby projects

- Arklow Bank Phase 1
- Arklow Bank Phase 2
- Dublin Array
- North Irish Sea Array
- Oriel
- Viewpoints selected for the SLVIA

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Project: Codling Wind Park

Contractor: LDĀDESIGN www.lda-design.co.uk

Figure 15.15
Cumulative sites

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1105

Internal descriptive code: IS - PAB..WF.RLB.BUFF.50km.. ONSH.VIEWPOINTS - NBP.WTGs - EIAR.FIG.15.15

Size: A3
Scale: 1:600,000

CRS: EPSG 25830

Rev.	Description	Date	By	Chk'd	App'd
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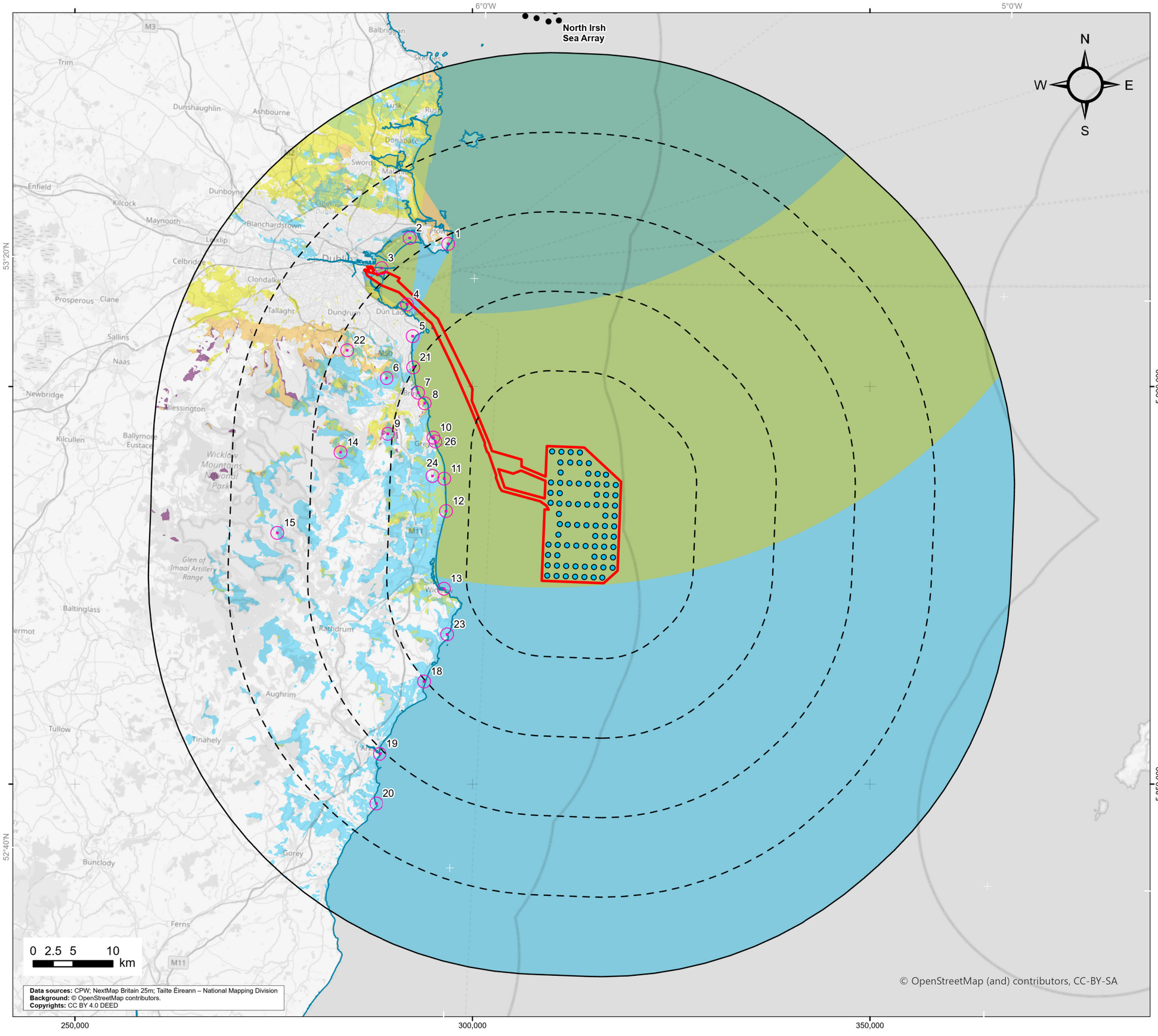
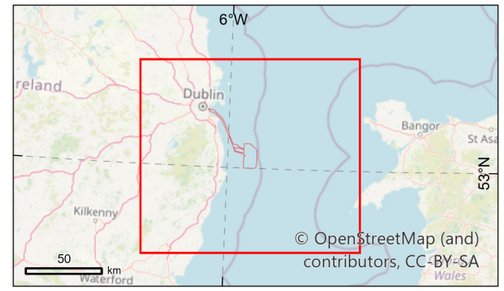
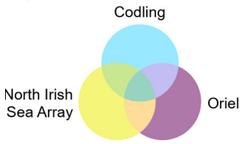




- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option A location
- North Irish Sea Array
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 75 turbines of 288m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

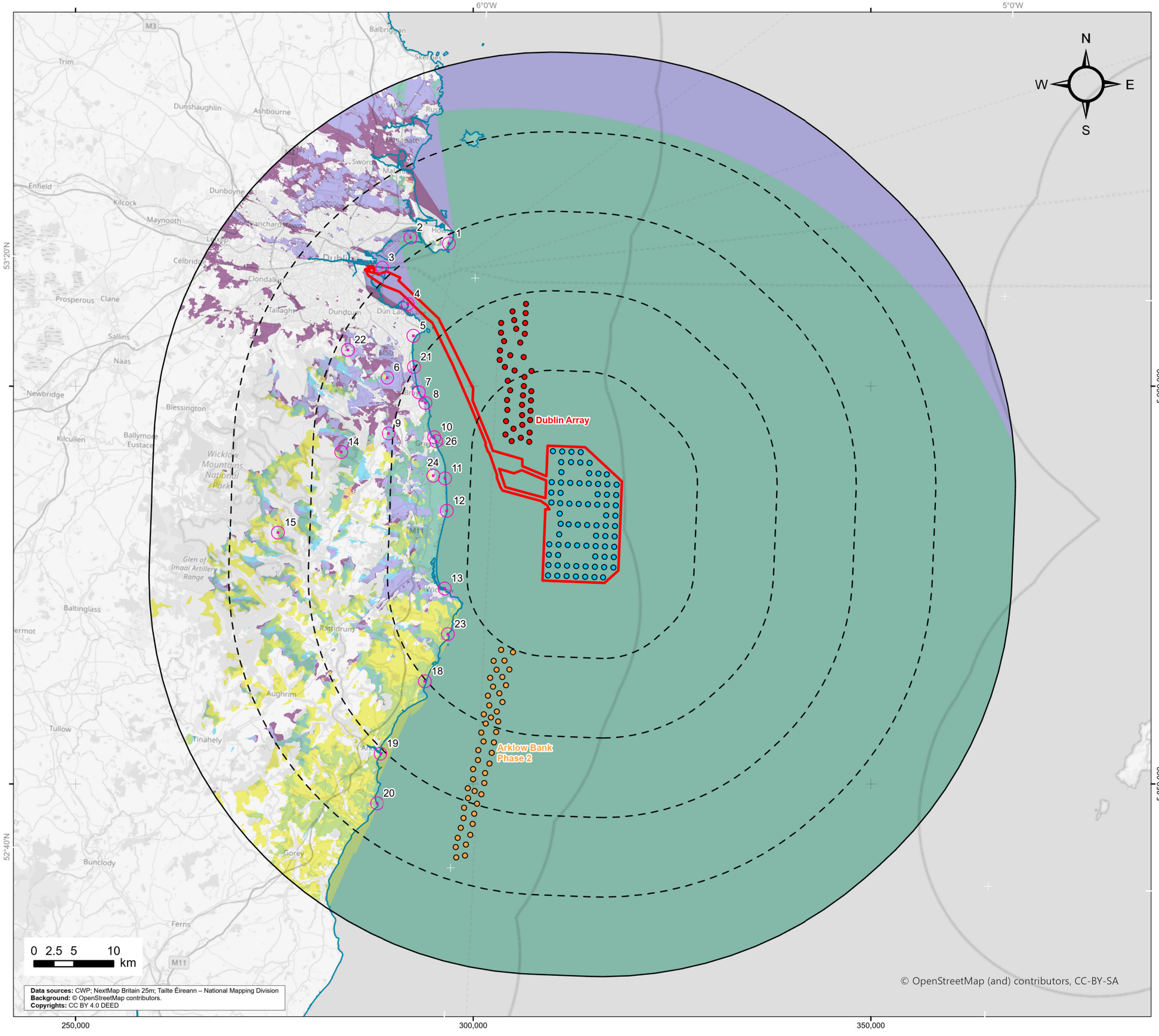
codling wind park	*Project:* Codling Wind Park	*Contractor:* LDĀDESIGN www.lda-design.co.uk

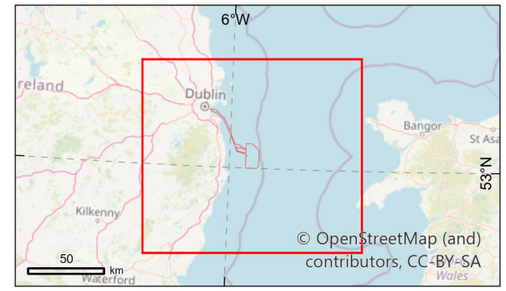
Figure 15.16a
Blade tip height Zone of Theoretical Visibility (ZTV) option A with cumulative sites north (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1107

Internal descriptive code:	*Size:*	*CRS:*
IS - PAB..WF.RLB.BUFF.50km..ZTV.TIP.A.DSM.. ONSH.VPs - ZTV.TIPs.ORI.NISA - EIAR.FIG.15.16a	A3	EPSG 25830
	Scale: 1:460,000	

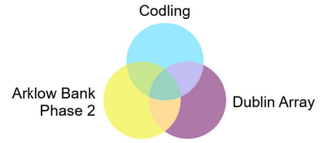
Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option A location
- Dublin Array
- Arklow Bank Phase 2
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 75 turbines of 288m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

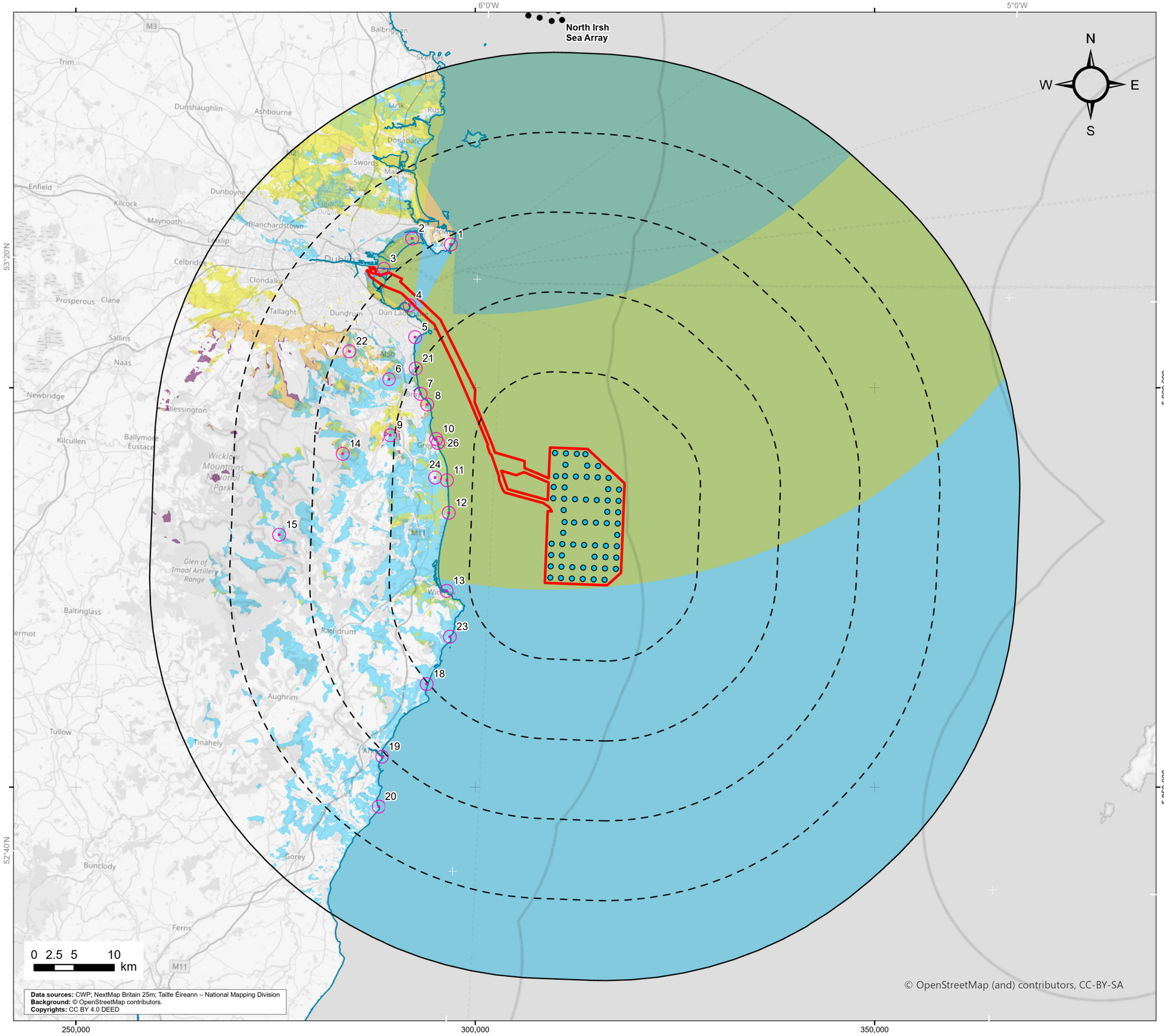
codling wind park	*Project:* Codling Wind Park	*Contractor:* LDĀDESIGN www.lda-design.co.uk

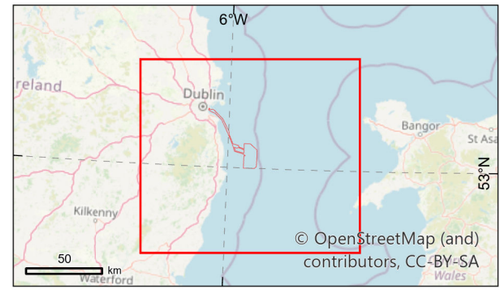
Figure 15.16b
Blade tip height Zone of Theoretical Visibility (ZTV) option A with cumulative sites south (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1108

Internal descriptive code:	*Size:*	*CRS:*
ALL - PAB..WF.RLB.BUFF.50km..ZTV.TIP.A.DSM.. ONSH.VPs - ZTV.TIPs.DA.ARK2 - EIAR.FIG.15.16b	*Scale:* 1:460,000	EPSG 25830

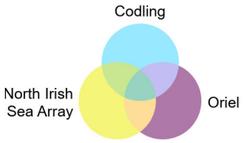
Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- North Irish Sea Array
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 60 turbines of 314m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDĀDESIGN www.lda-design.co.uk

Figure 15.16c
Blade tip height Zone of Theoretical Visibility (ZTV) option B with cumulative sites north (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1109

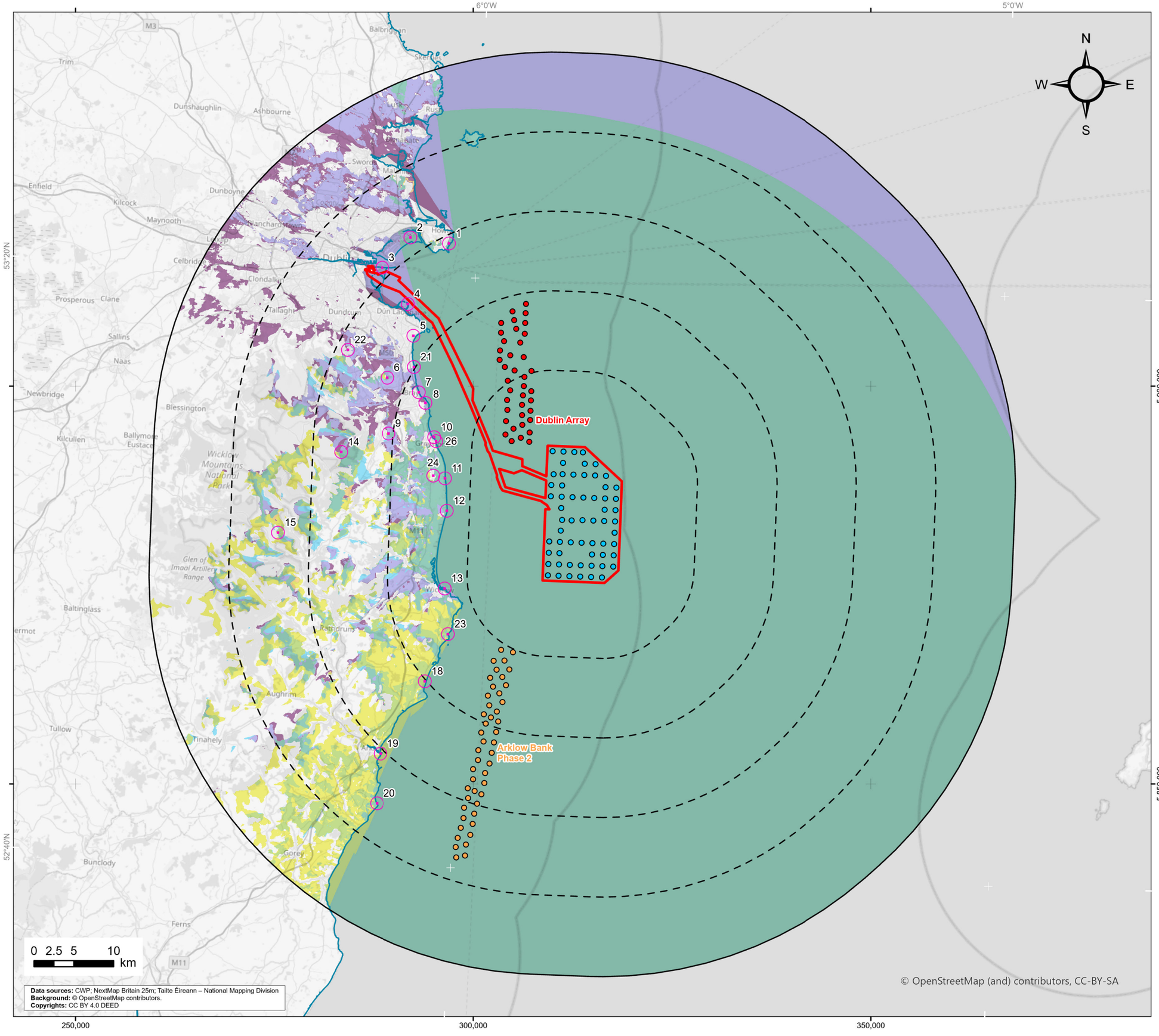
Internal descriptive code: IS - PAB..WF.RLB.BUFF.50km..ZTV.TIP.B.DSM.. ONSH.VPs - ZTV.TIPs.ORI.NISA - EIAR.FIG.15.16c

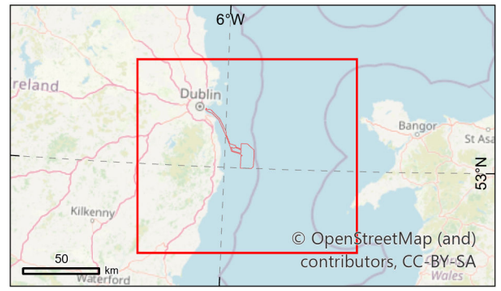
Size: A3

Scale: 1:460,000

CRS: EPSG 25830

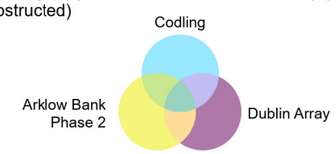
Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- Dublin Array
- Arklow Bank Phase 2
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 60 turbines of 314m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDA DESIGN www.lda-design.co.uk

Figure 15.16d
Blade tip height Zone of Theoretical Visibility (ZTV) option B with cumulative sites south (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1110

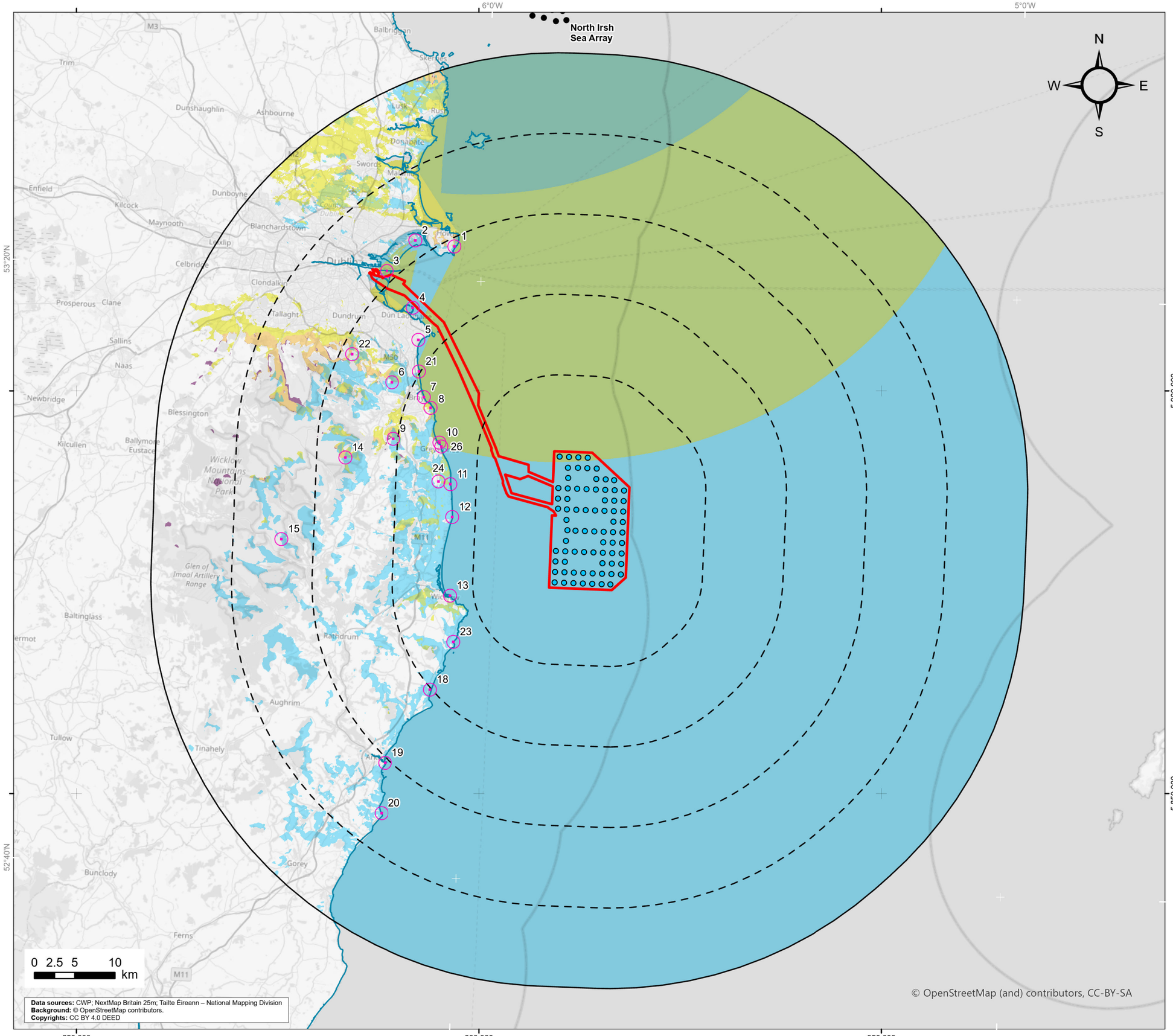
Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km..ZTV.TIP.B.DSM.. ONSH.VPs - ZTV.TIPs.DA.ARK2 - EIAR.FIG.15.16d

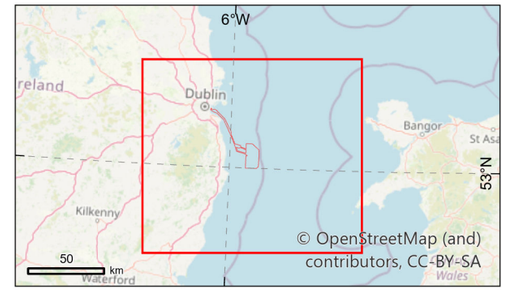
Size: A3

Scale: 1:460,000

CRS: EPSG 25830

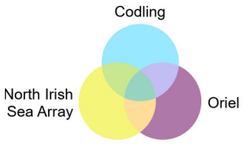
Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of Array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option A location
- North Irish Sea Array
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 75 turbines of 163m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

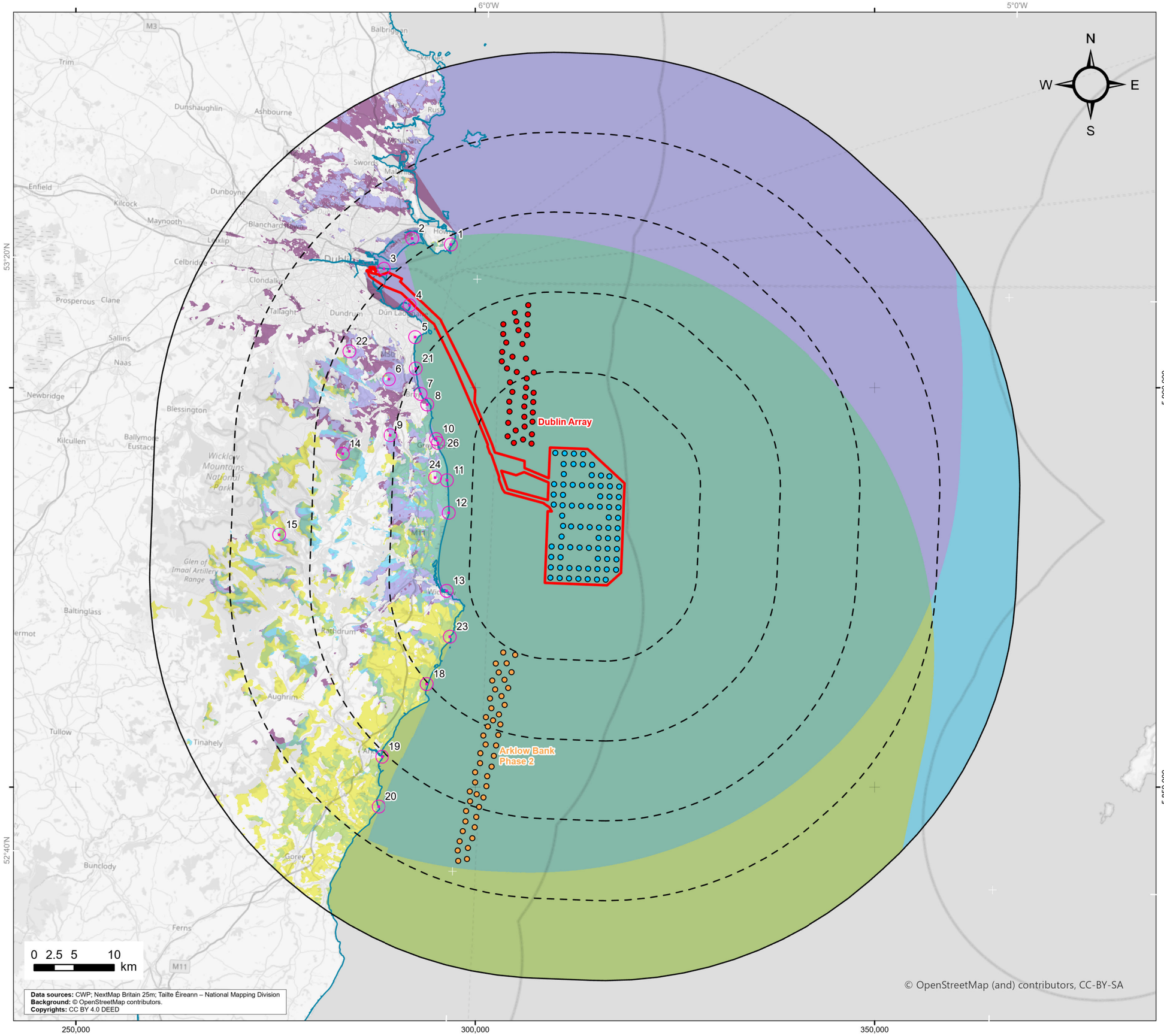
codling wind park	*Project:* Codling Wind Park	*Contractor:* LDĀDESIGN www.lda-design.co.uk

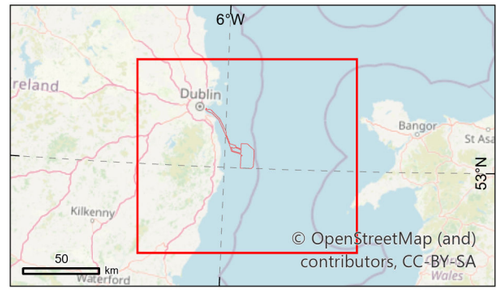
Figure 15.16e
Hub height Zone of Theoretical Visibility (ZTV) option A with cumulative sites north (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1111

Internal descriptive code:	*Size:*	*CRS:*
IS - PAB..WF.RLB.BUFF.50km..ZTV.HUB.A.DSM.. ONSH.VPs - ZTV.HUBs.ORI.NISA - EIAR.FIG.15.16e	A3	EPSG 25830
	Scale: 1:460,000	

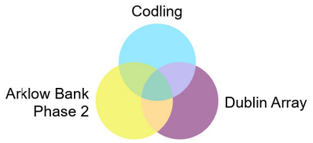
Rev.	*Description*	*Date*	*By*	*Chk'd*	*App'd*
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option A location
- Dublin Array
- Arklow Bank Phase 2
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 75 turbines of 163m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

codling wind park

Project: Codling Wind Park

Contractor: LDĀDESIGN www.lda-design.co.uk

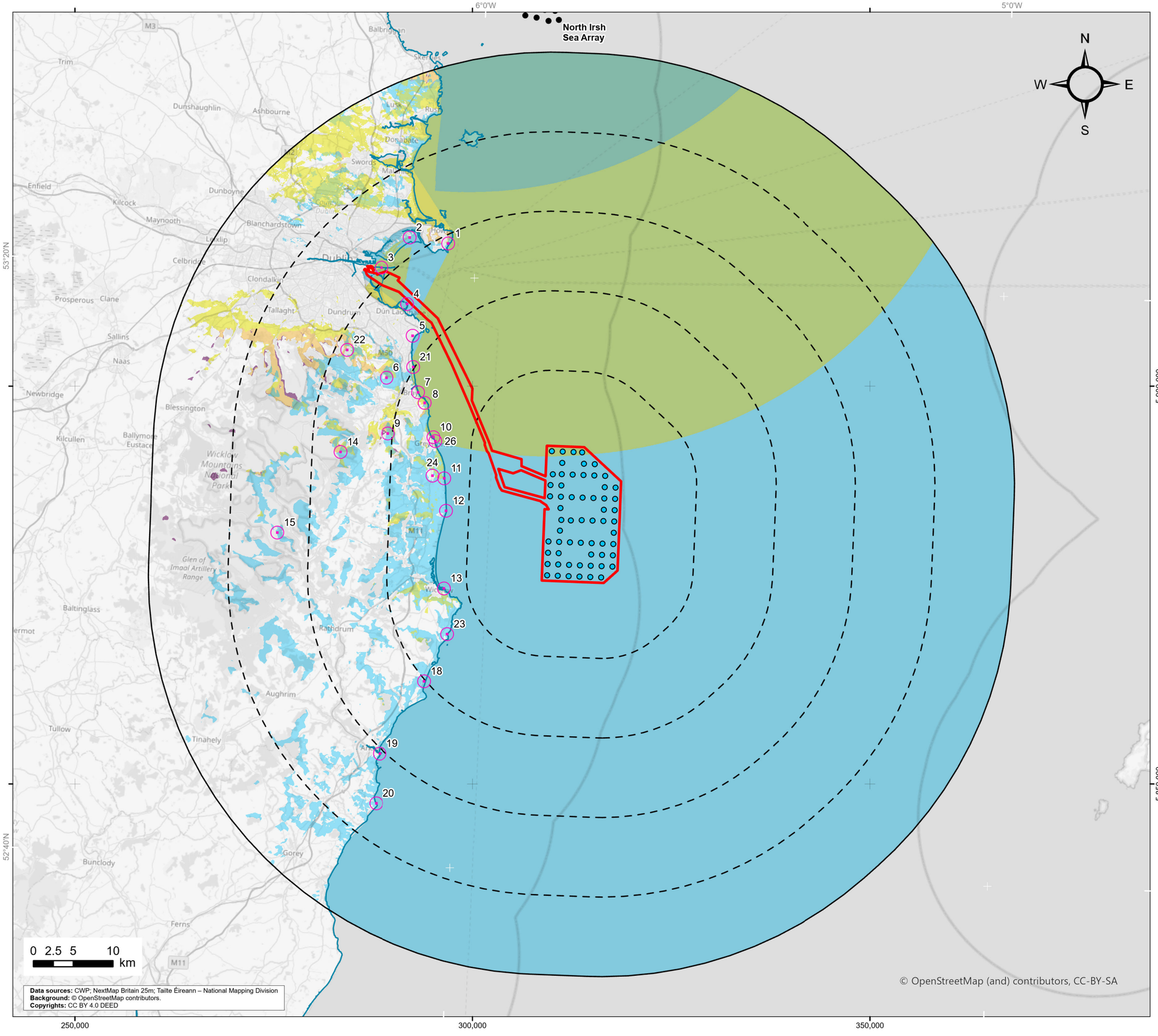
Figure 15.16f
Hub height Zone of Theoretical Visibility (ZTV) option A with cumulative sites south (obstructed)

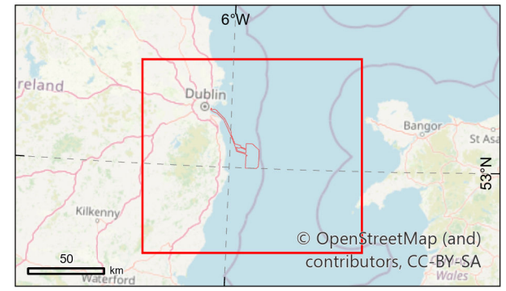
CWP doc. number: CWP-LDA-ENG-08-01-MAP-1112

Internal descriptive code: ALL - PAB..WF.RLB.BUFF.50km..ZTV.HUB.A.DSM.. ONSH.VPs - ZTV.HUBs.DA.ARK2 - EIAR.FIG.15.16f

Size: A3 *Scale:* 1:460,000 *CRS:* EPSG 25830

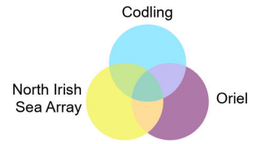
Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- North Irish Sea Array
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 60 turbines of 176m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

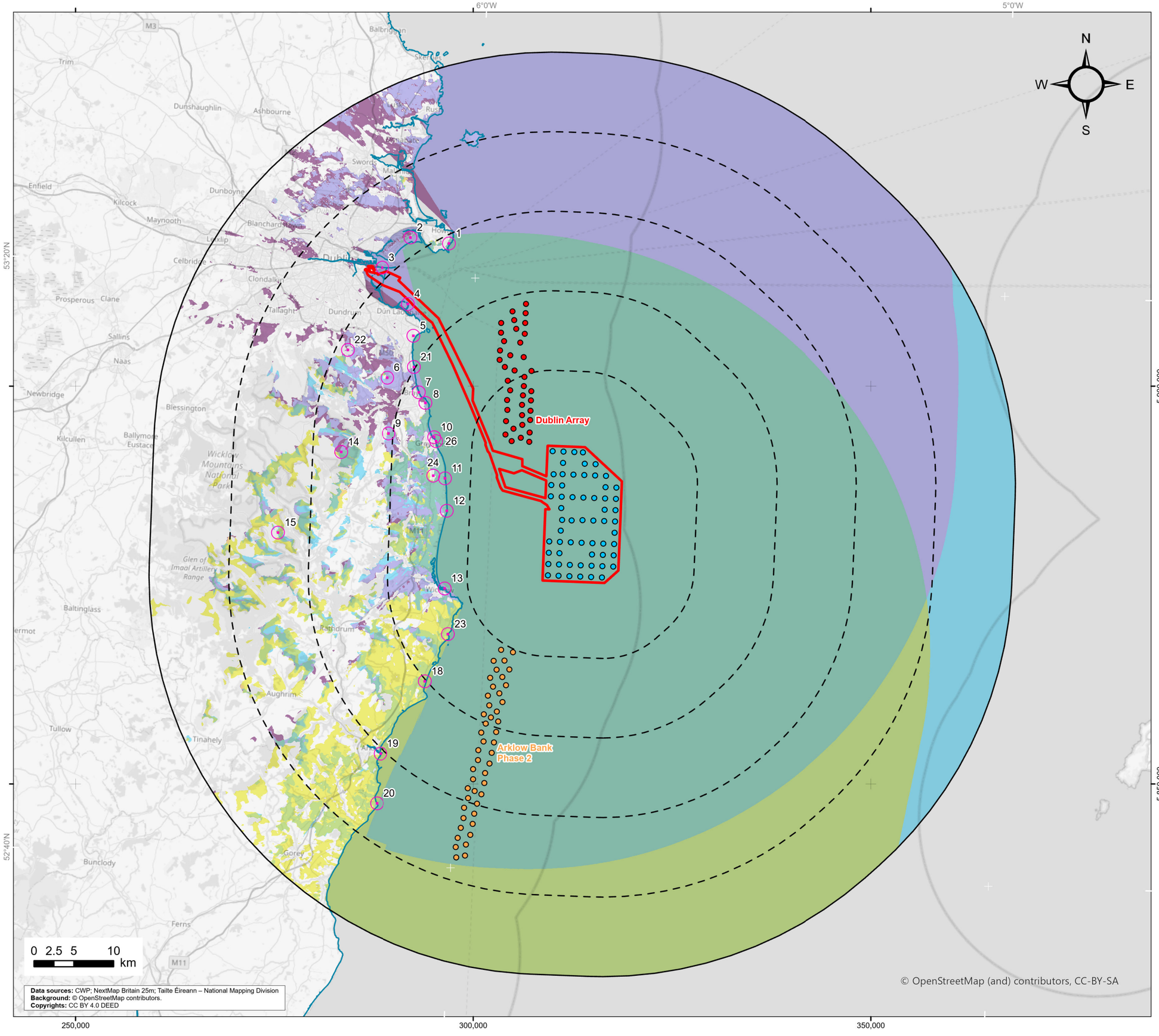
codling wind park	*Project:* Codling Wind Park	*Contractor:* LDĀDESIGN www.lda-design.co.uk

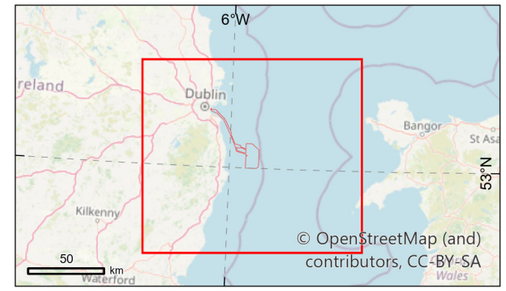
Figure 15.16g
Hub height Zone of Theoretical Visibility (ZTV) option B with cumulative sites north (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1113

Internal descriptive code:	*Size:*	*CRS:*
IS - PAB..WF.RLB.BUFF.50km..ZTV.HUB.B.DSM.. ONSH.VPs - ZTV.HUBs.ORI.NISA - EIAR.FIG.15.16g	A3	EPSG 25830
	Scale: 1:460,000	

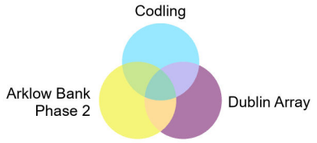
Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- Dublin Array
- Arklow Bank Phase 2
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 60 turbines of 176m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

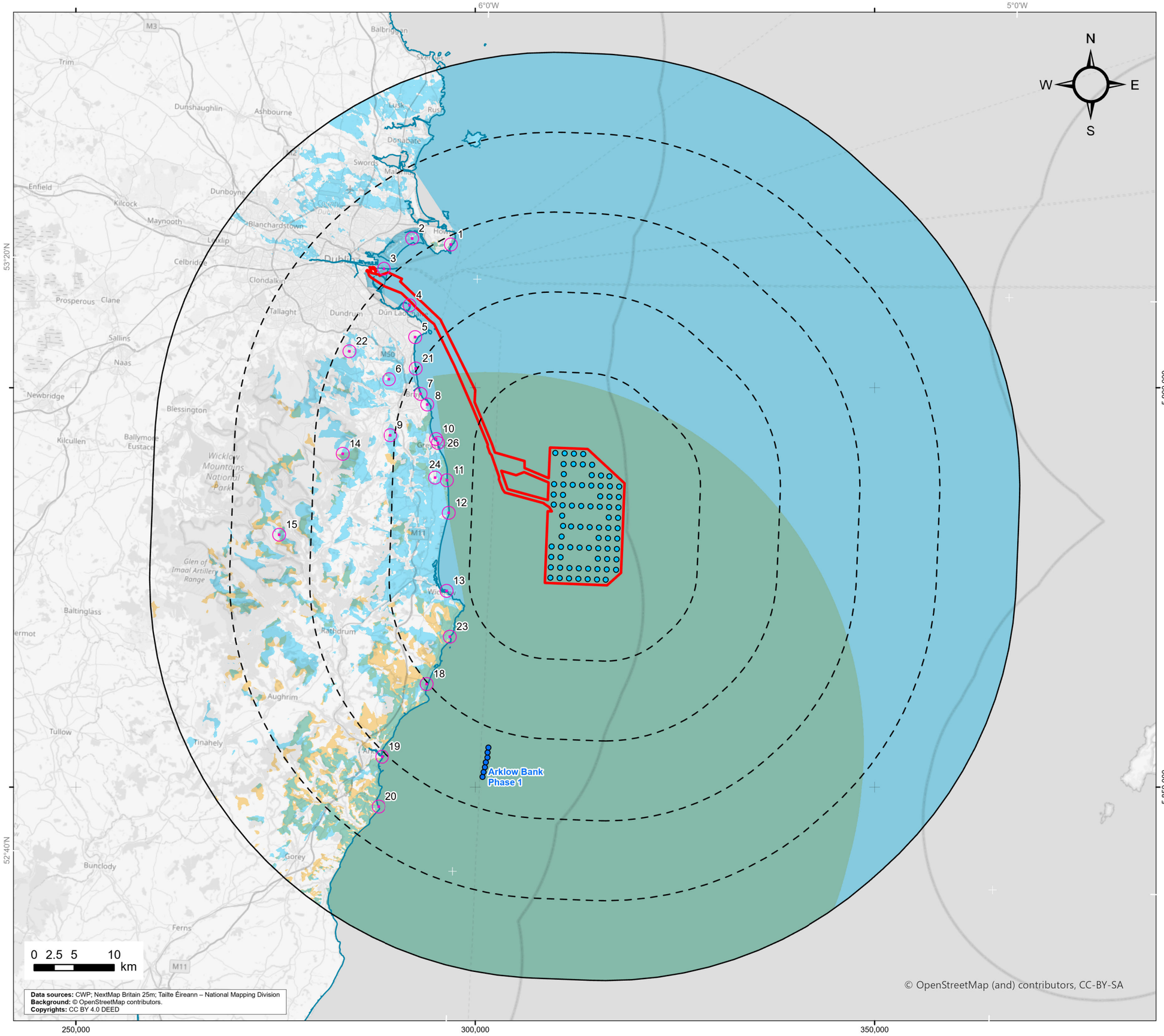
codling wind park	*Project:* Codling Wind Park	*Contractor:* LDĀDESIGN www.lda-design.co.uk

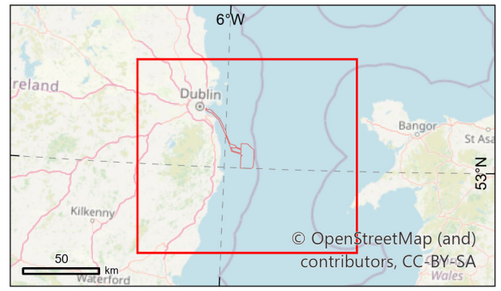
Figure 15.16h
Hub height Zone of Theoretical Visibility (ZTV) option B with cumulative sites south (obstructed)

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1114

Internal descriptive code:	*Size:*	*CRS:*
ALL - PAB..WF.RLB.BUFF.50km..ZTV.HUB.B.DSM.. ONSH.VPs - ZTV.HUBs.DA.ARK2 - EIAR.FIG.15.16h	A3	EPSG 25830
	Scale: 1:460,000	

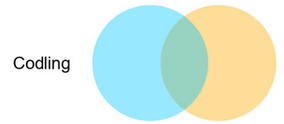
Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option A location
- Arklow Bank Phase 1
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 75 turbines of 288m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

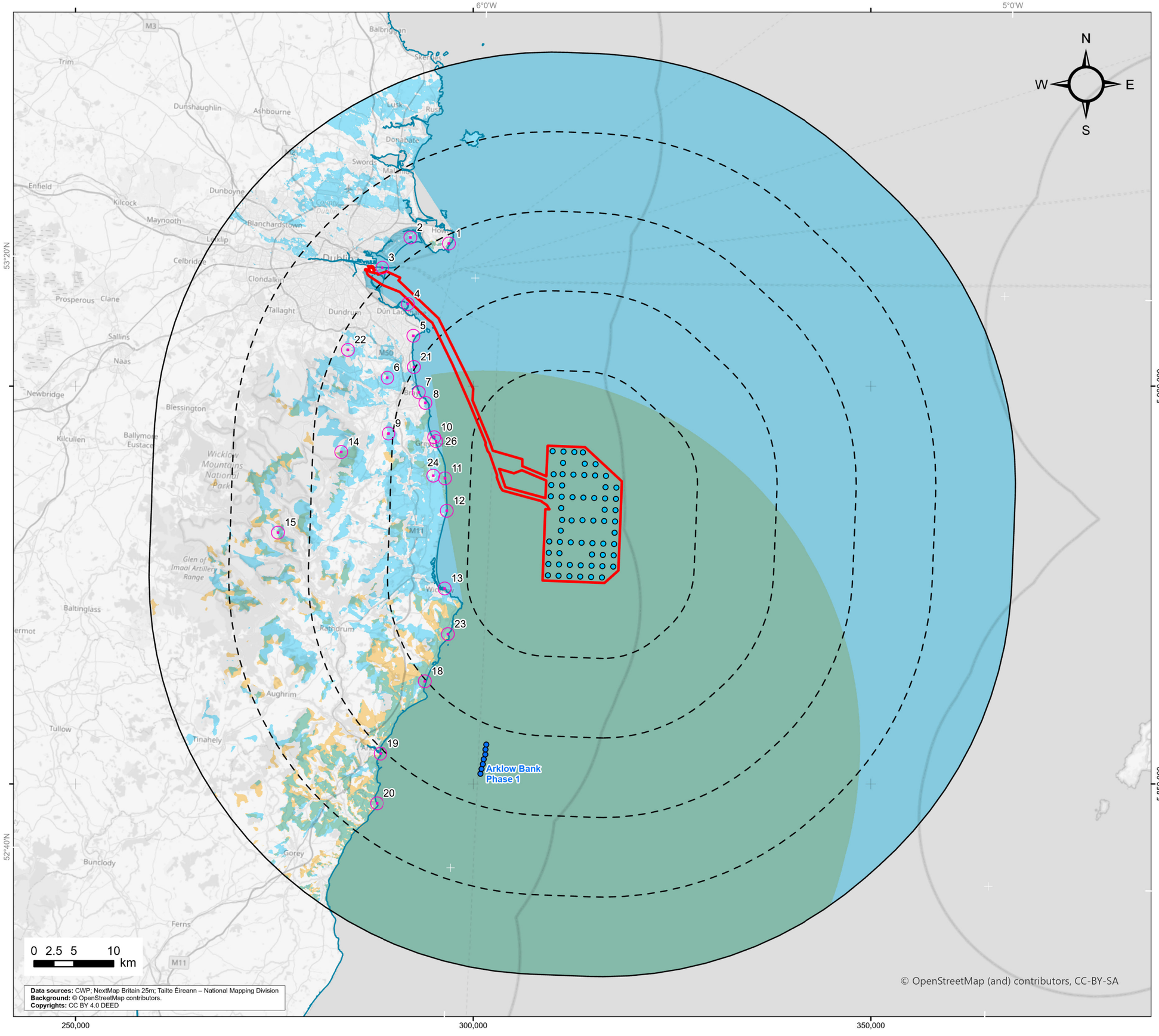
codling wind park	*Project:* Codling Wind Park	*Contractor:* LDĀDESIGN www.lda-design.co.uk

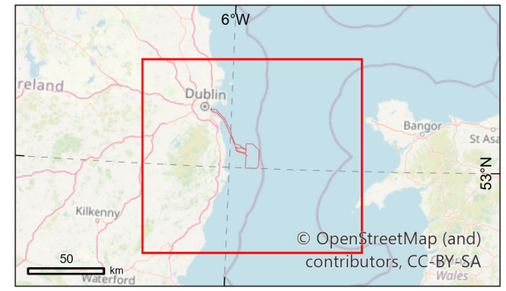
Figure 15.16i
Blade tip height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option A (obstructed) with operational cumulative site

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1115

Internal descriptive code:	*Size:*	*CRS:*
ALL - PAB..WF.RLB.BUFF.50km..ZTV.TIP.A.DSM.. ONSH.VPs - ZTV.TIP.ARK1 - EIAR.FIG.15.16i	A3	EPSG 25830
	Scale: 1:460,000	

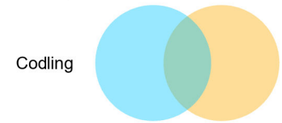
Rev.	*Description*	*Date*	*By*	*Chk'd*	*App'd*
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option B location
- Arklow Bank Phase 1
- Viewpoints selected for the SLVIA

Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 60 turbines of 314m blade tip height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

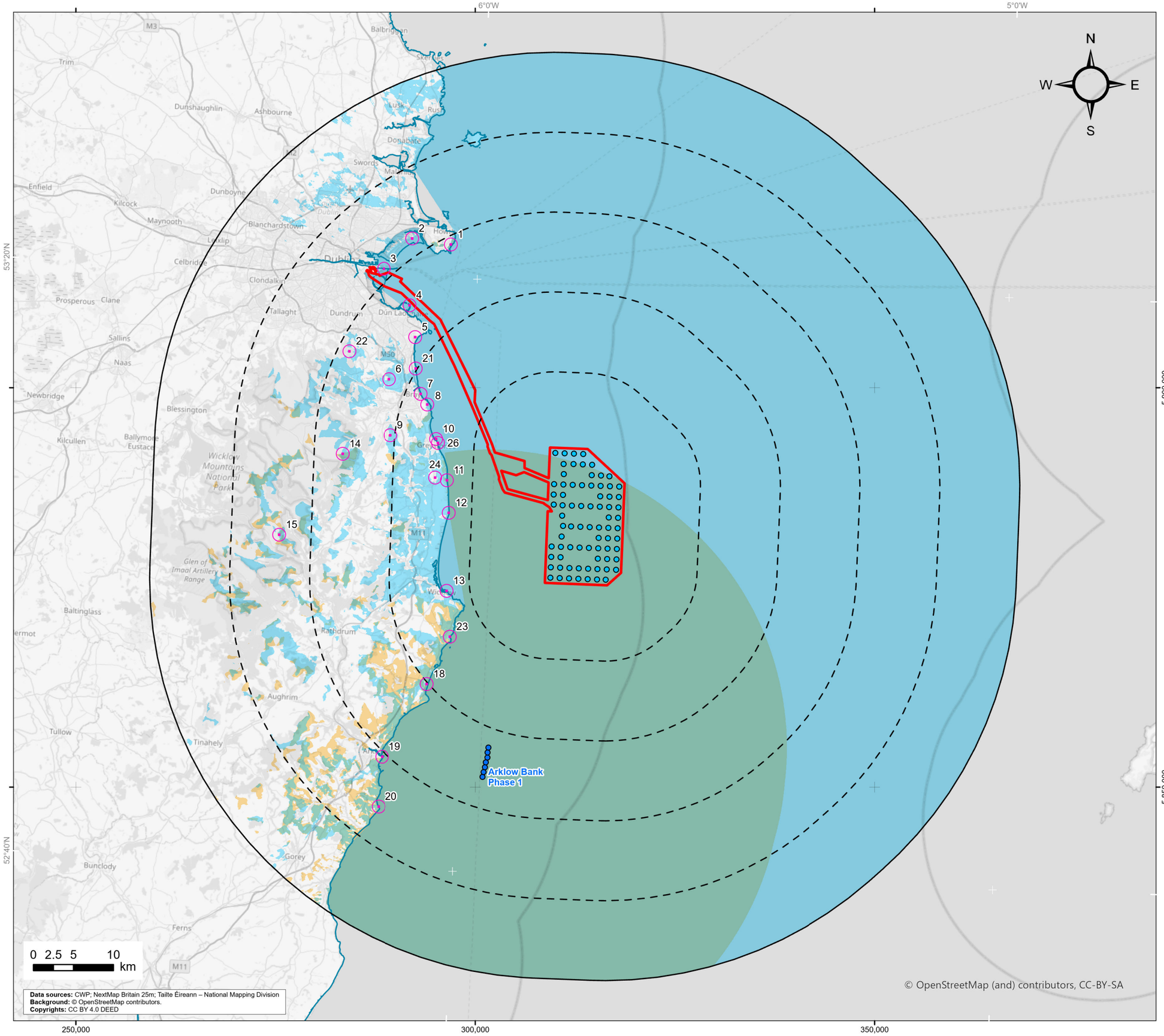
codling wind park	*Project:* Codling Wind Park	*Contractor:* LDĀDESIGN www.lda-design.co.uk

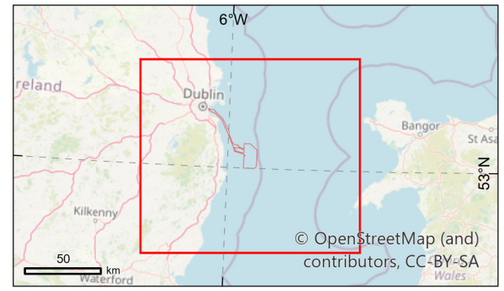
Figure 15.16j
Blade tip height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option B (obstructed) with operational cumulative site

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1116

Internal descriptive code:	*Size:*	*CRS:*
ALL - PAB..WF.RLB.BUFF.50km..ZTV.TIP.B.DSM.. ONSH.VPs - ZTV.TIP.ARK1 - EIAR.FIG.15.16j	A3	EPSG 25830
	Scale: 1:460,000	

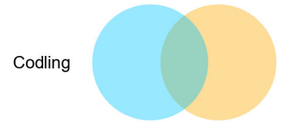
Rev.	*Description*	*Date*	*By*	*Chk'd*	*App'd*
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





- Planning Application Boundary (PAB)
- SLVIA study area (50 km buffer of the array site / wind farm site)
- 10 km incremental buffers of array site / wind farm site
- Low water mark
- Wind Turbine Generator (WTG) option A location
- Arklow Bank Phase 1
- Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (obstructed)



ZTV notes:
* ZTV produced for 75 turbines of 163m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

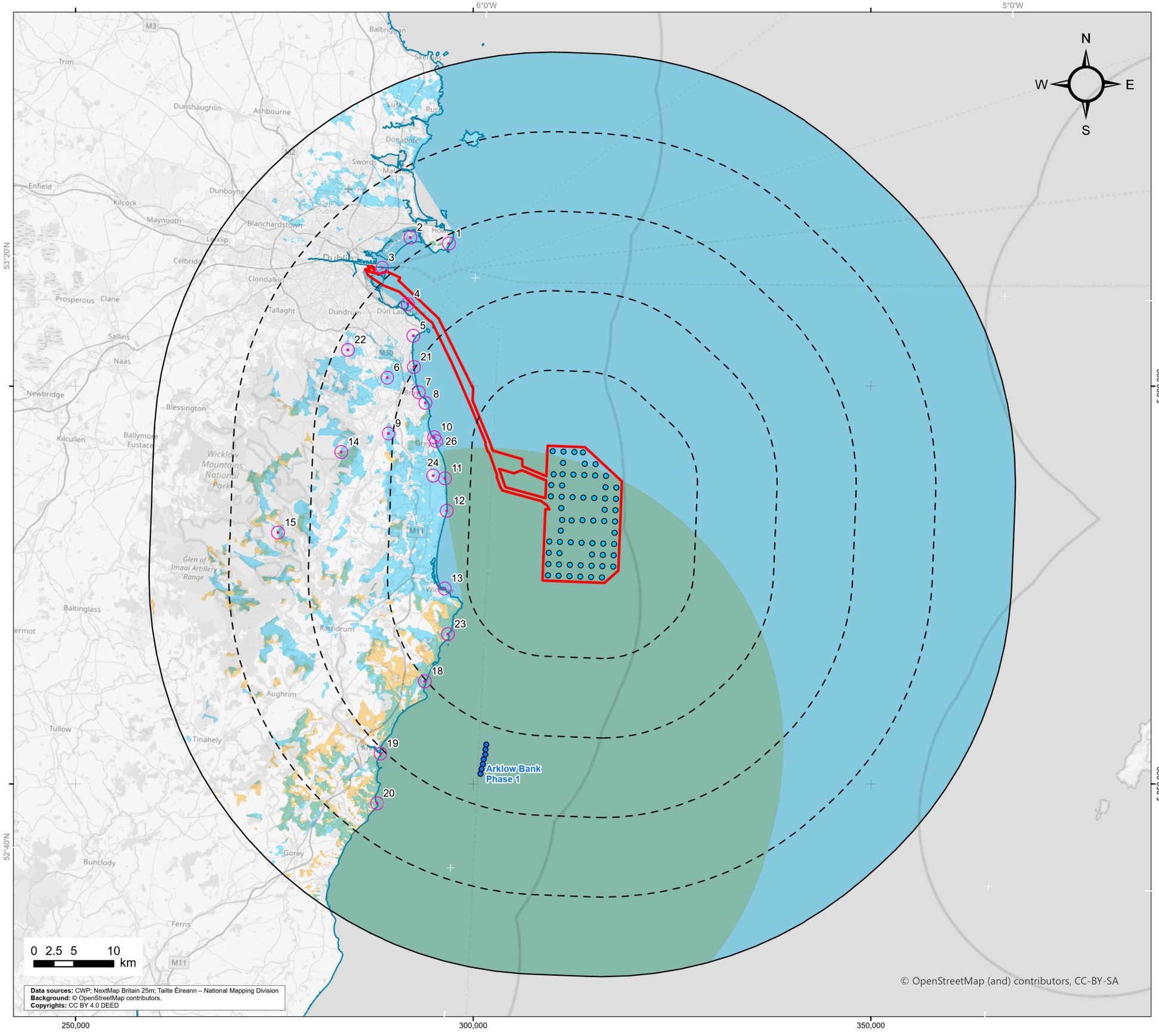
codling wind park	*Project:* Codling Wind Park	*Contractor:* LDĀDESIGN www.lda-design.co.uk

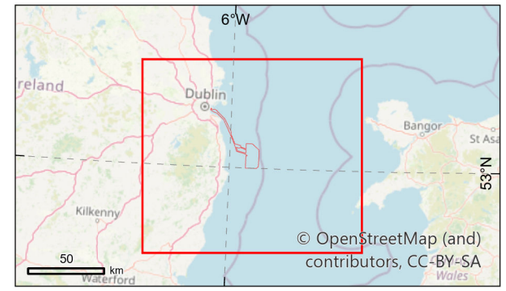
Figure 15.16k
Hub height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option A (obstructed) with operational cumulative site

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1117

Internal descriptive code:	*Size:*	*CRS:*
ALL - PAB..WF.RLB.BUFF.50km..ZTV.HUB.A.DSM.. ONSH.VPs - ZTV.TIP.ARK1 - EIAR.FIG.15.16k	A3	EPSG 25830
	Scale: 1:460,000	

Rev.	*Description*	*Date*	*By*	*Chk'd*	*App'd*
A	First issue	2024/05/20	VW	IH/EA	MBo/SL





Planning Application Boundary (PAB)

SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm site

Low water mark

Wind Turbine Generator (WTG) option B location

Arklow Bank Phase 1

Viewpoints selected for the SLVIA

Hub height Zone of Theoretical Visibility (ZTV) (obstructed)

ZTV notes:
* ZTV produced for 60 turbines of 176m hub height.
* Visibility removed beyond the 50 km study area.
* Viewpoint height set to 2m AGL.
* Visibility is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the viewshed routine in the ESRI ArcGIS Suite. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and settlements, which have been included in the model with the heights obtained from Nextmap 25. It should be noted that in some areas woodlands included within the ZTV may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. The ZTV study reflects this pattern at a specific point in time, as it is based on real height information. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

The model does not take into account any 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 Nextmap 25 DSM data and has a 25m^2 resolution.

codling wind park	*Project:* Codling Wind Park	*Contractor:* LDA DESIGN www.lda-design.co.uk

Figure 15.16l
Hub height Zone of Theoretical Visibility (ZTV) of Wind Turbine Generator (WTG) option B (obstructed) with operational cumulative site

CWP doc. number: CWP-LDA-ENG-08-01-MAP-1118

Internal descriptive code:	*Size:*	*CRS:*
ALL - PAB..WF.RLB.BUFF.50km..ZTV.HUB.B.DSM.. ONSH.VPs - ZTV.TIP.ARK1 - EIAR.FIG.15.16l	A3	EPSG 25830
	Scale: 1:460,000	

Rev.	Description	Date	By	Chk'd	App'd
A	First issue	2024/05/20	VW	IH/EA	MBo/SL