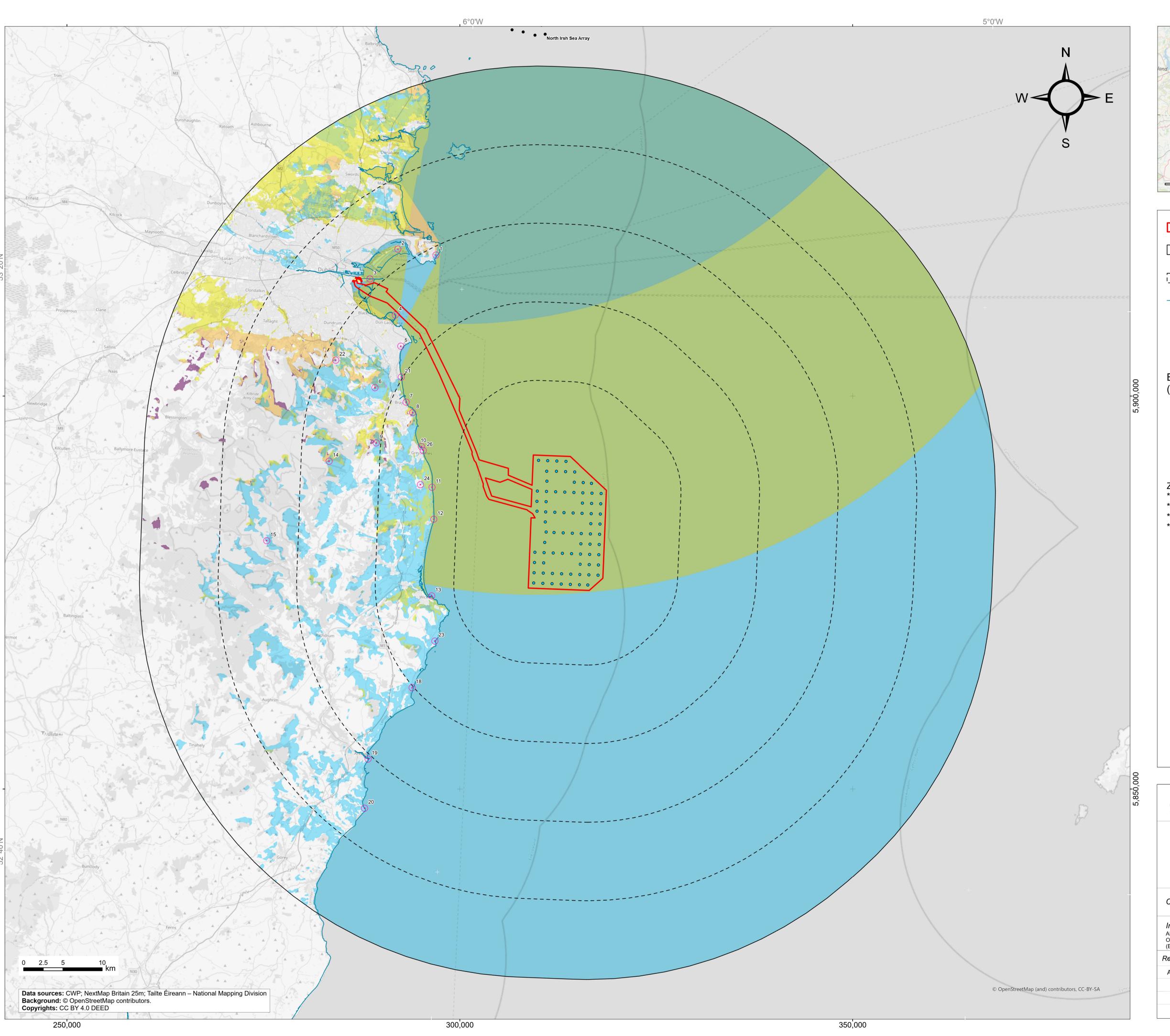




Environmental Impact Assessment Report

Volume 4

Appendix 15.14 Cumulative Zone of Theoretical Visibility(s) at A1





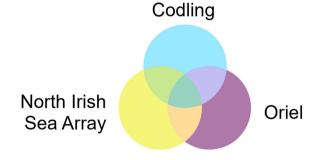
SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm

Low water mark

- Wind Turbine Generator (WTG) option A location
- North Irish Sea Array
- Viewpoints selected for the SLVIA

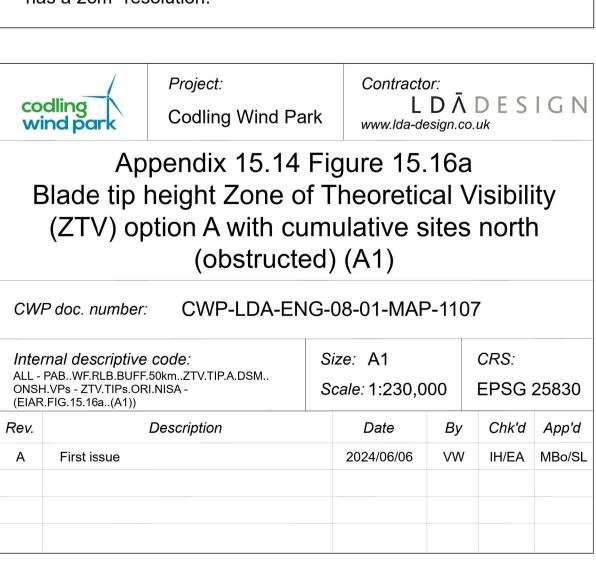
Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)

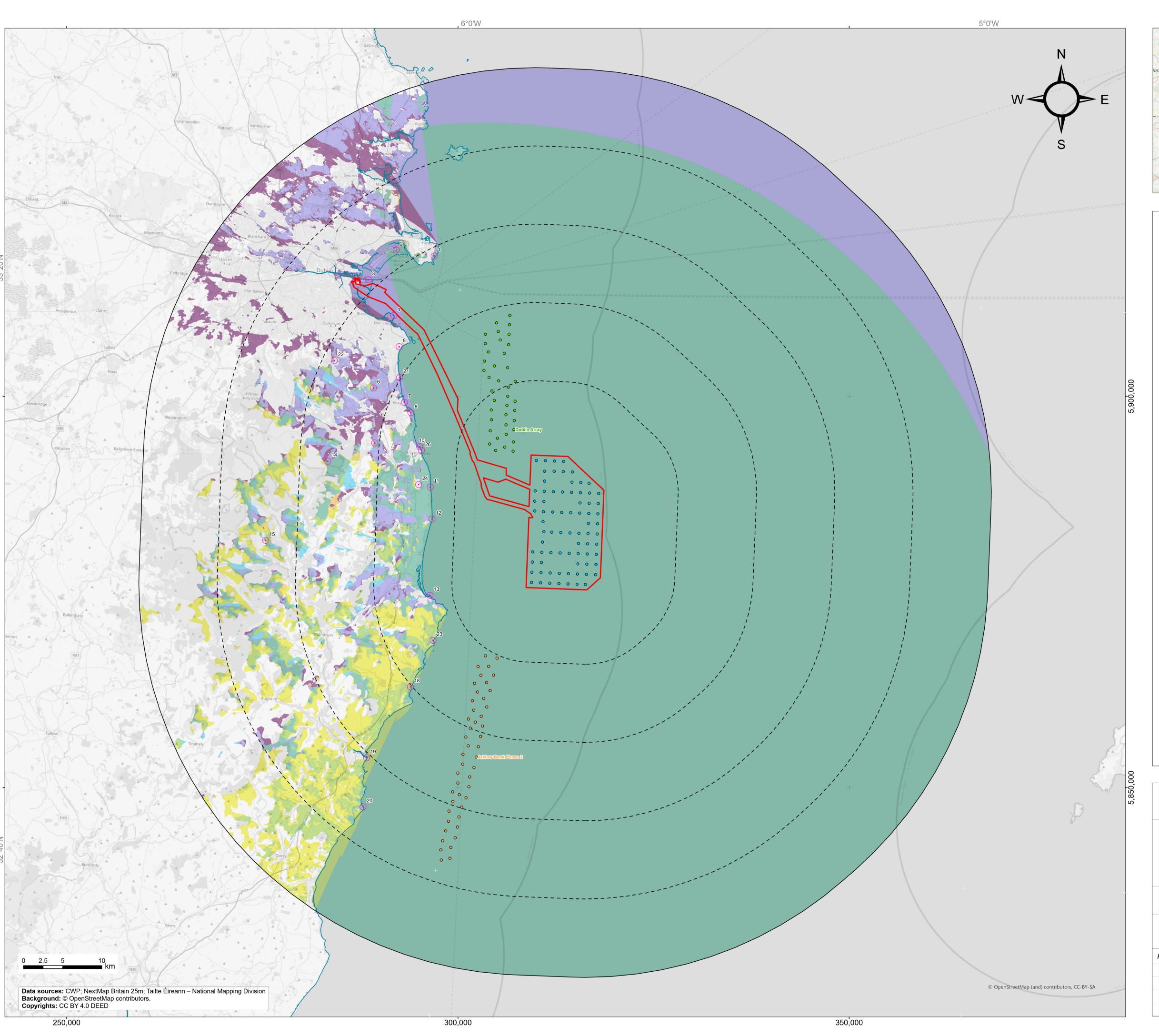


ZTV notes

- * 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.









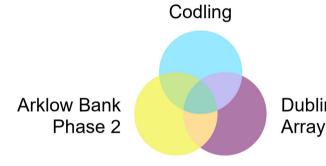
SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm

Low water mark

- Wind Turbine Generator (WTG) option A location
- Dublin Array
- Arklow Bank Phase 2
- Viewpoints selected for the SLVIA

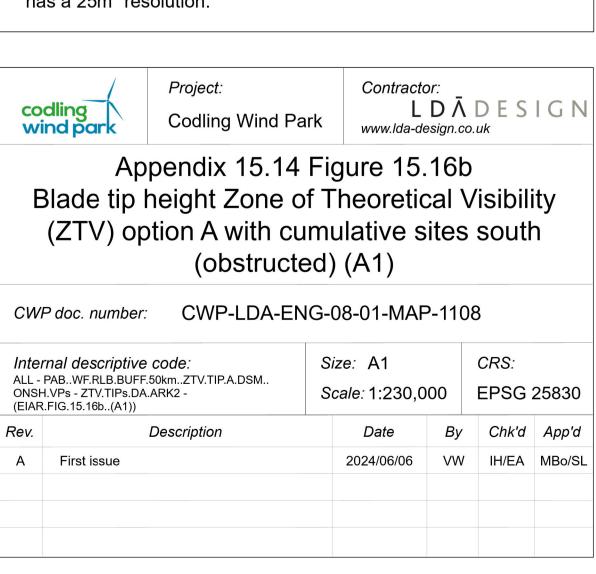
Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)

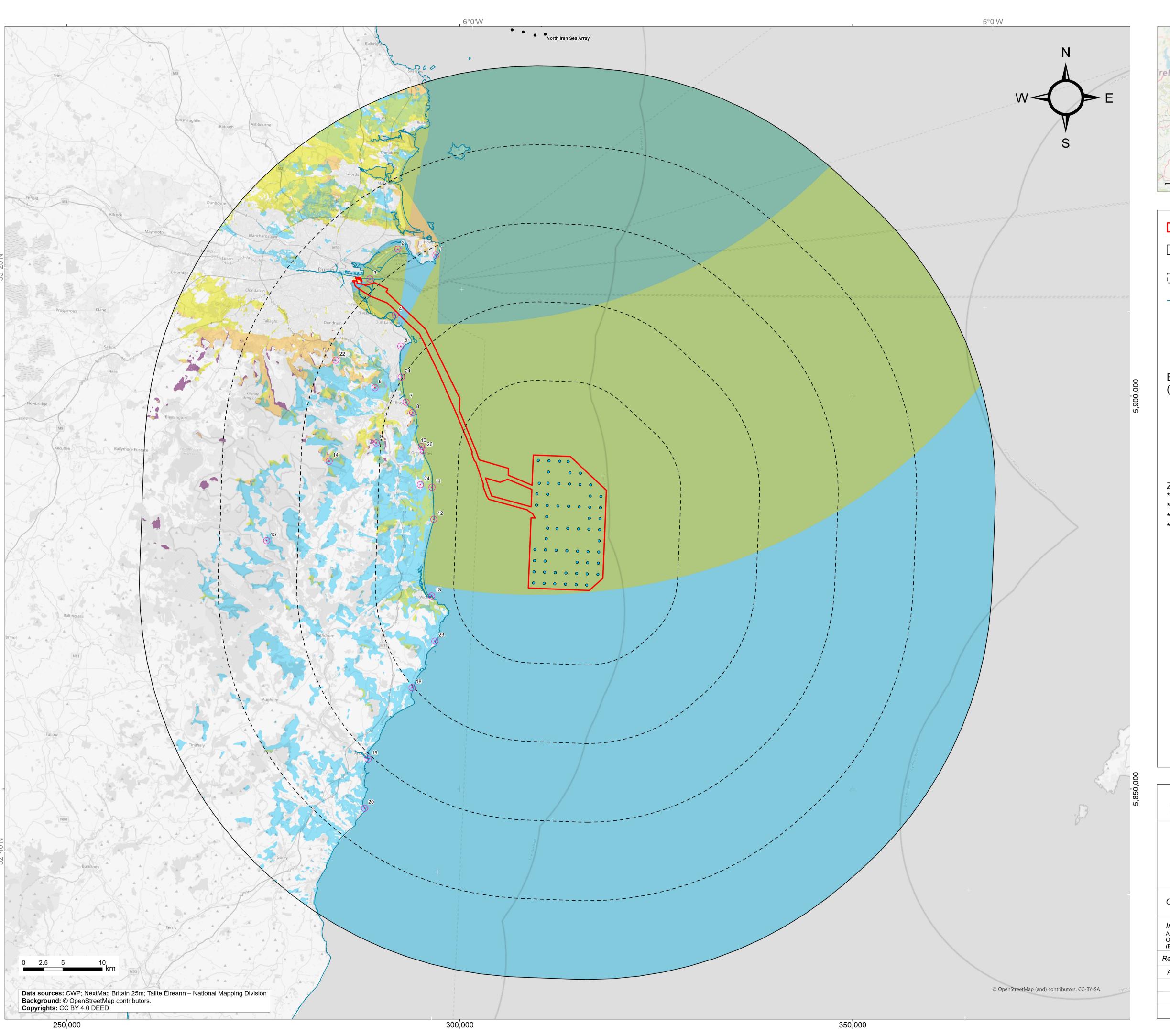


ZTV notes

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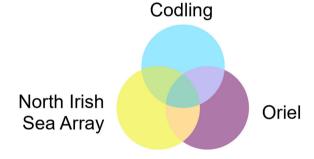
SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm

Low water mark

- Wind Turbine Generator (WTG) option B location
- North Irish Sea Array
- Viewpoints selected for the SLVIA

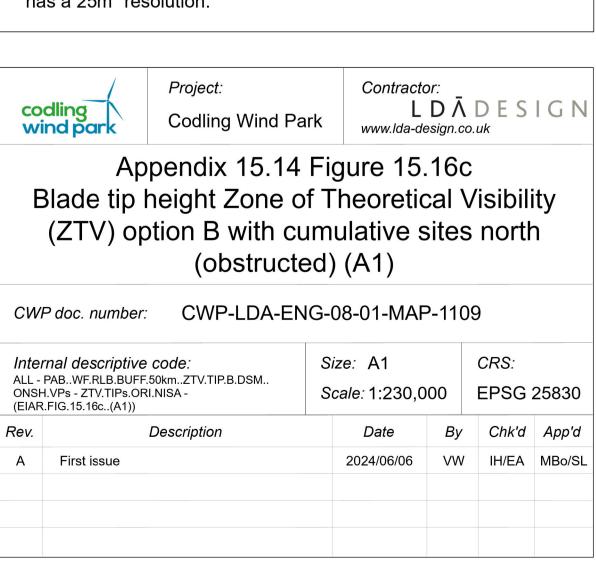
Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)

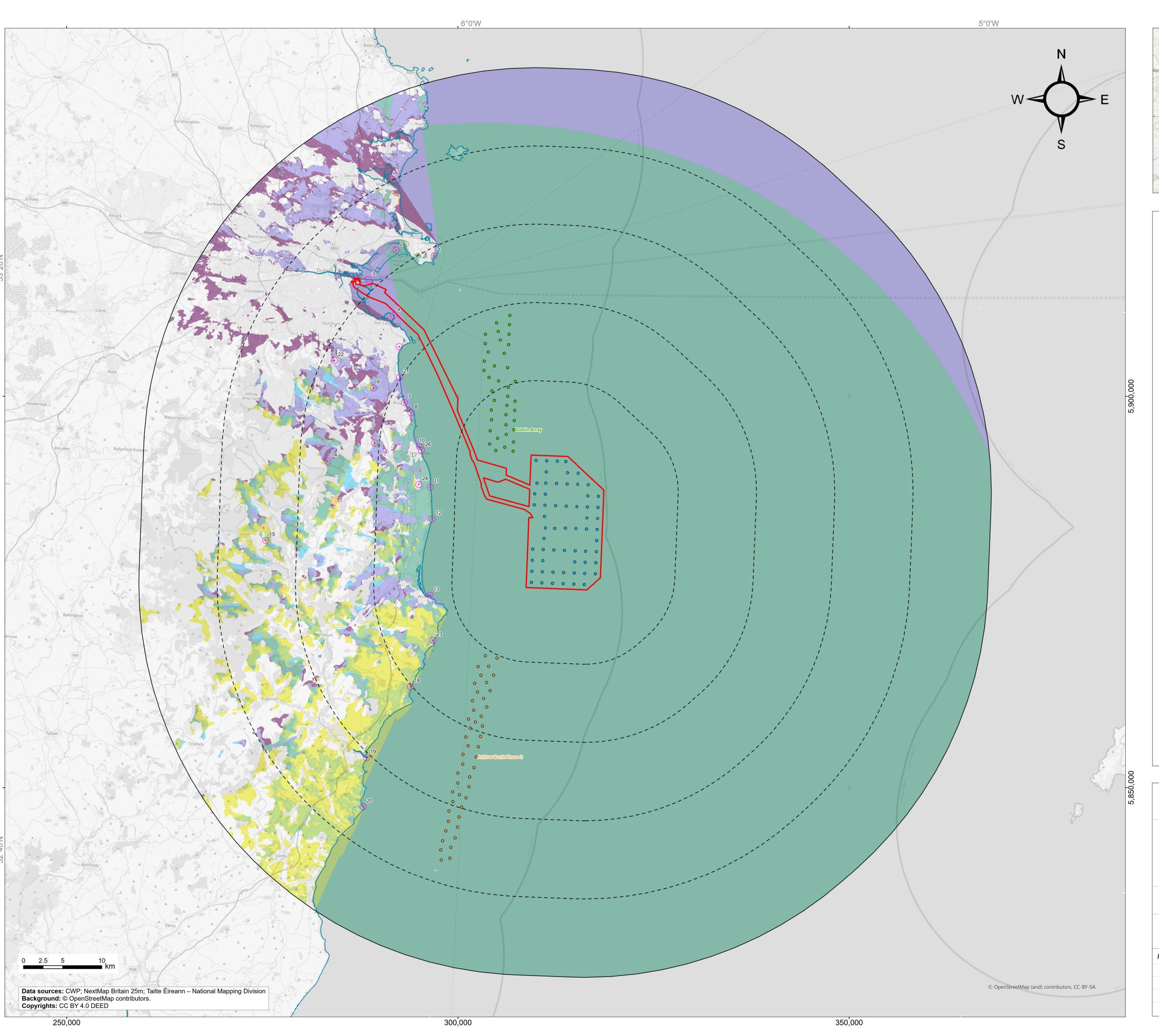


ZTV notes

- * 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.

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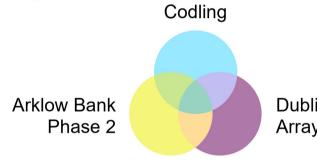
SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm

Low water mark

- Wind Turbine Generator (WTG) option B location
- Dublin Array
- Arklow Bank Phase 2
- Viewpoints selected for the SLVIA

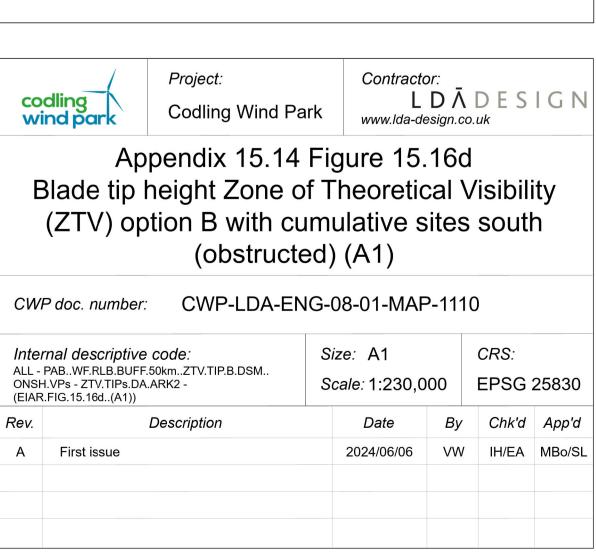
Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)

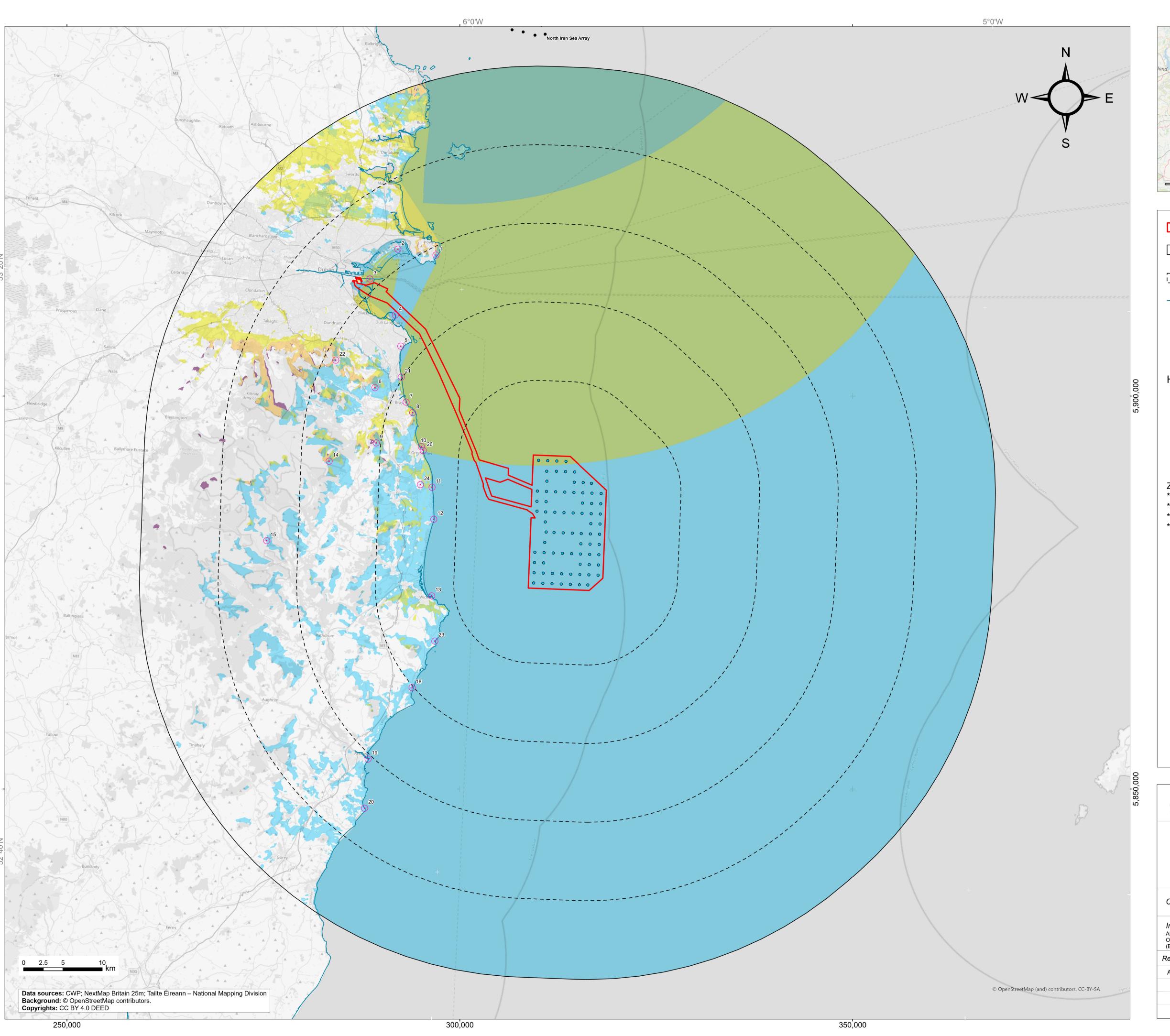


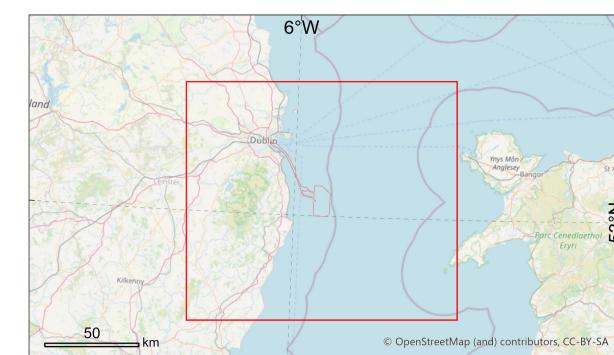
ZTV notes

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- * Visibility removed beyond the 50 km study area.
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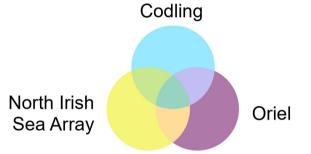
SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm

Low water mark

- Wind Turbine Generator (WTG) option A location
- North Irish Sea Array
- Viewpoints selected for the SLVIA

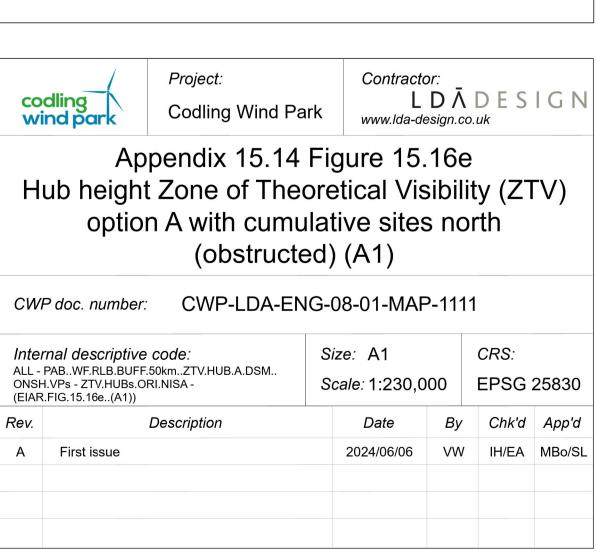
Hub height Zone of Theoretical Visibility (ZTV) (obstructed)

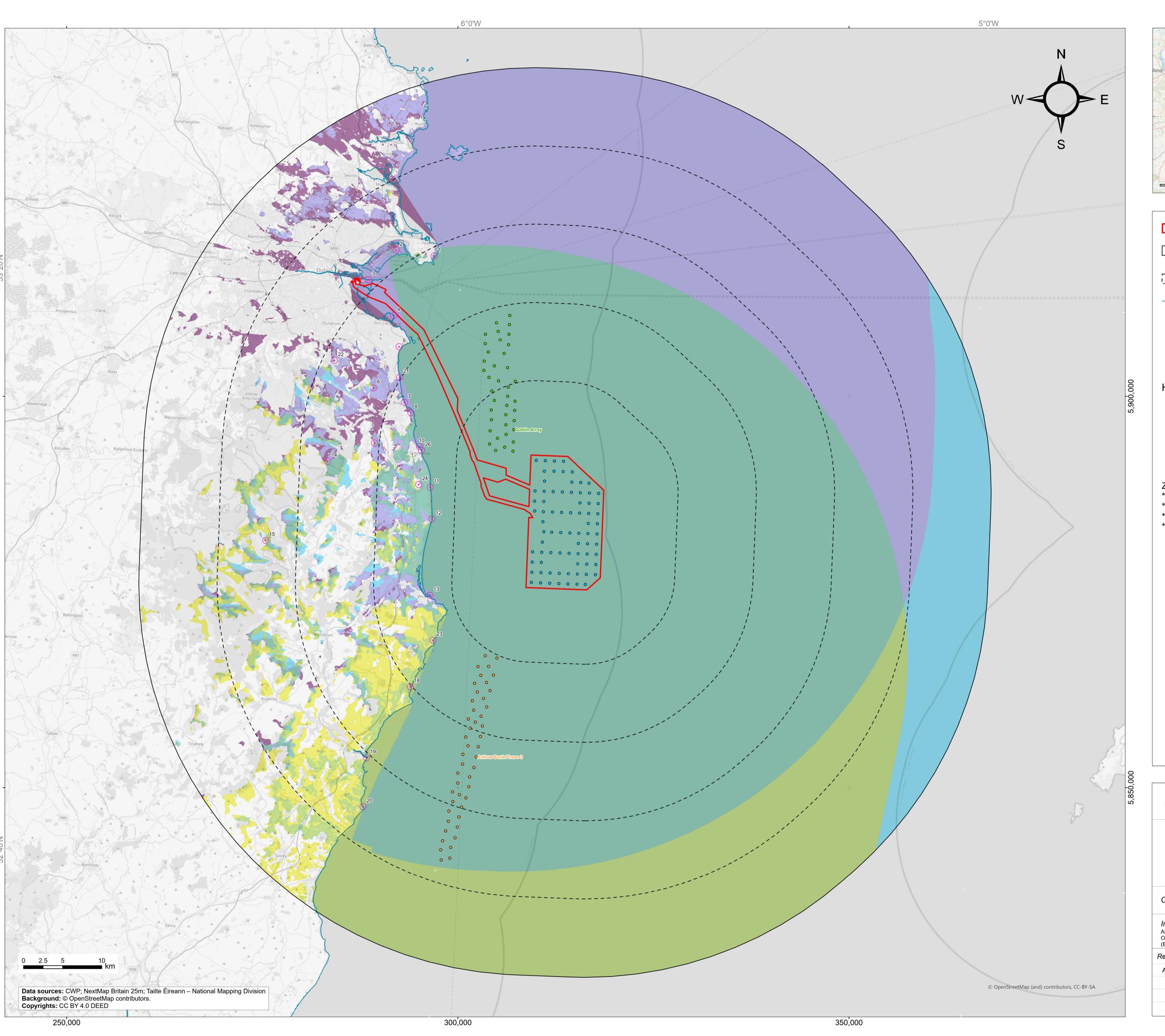


ZTV notes

- * 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.

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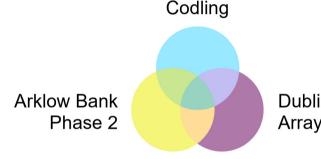
SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm

Low water mark

- Wind Turbine Generator (WTG) option A location
- Dublin Array
- Arklow Bank Phase 2
- Viewpoints selected for the SLVIA

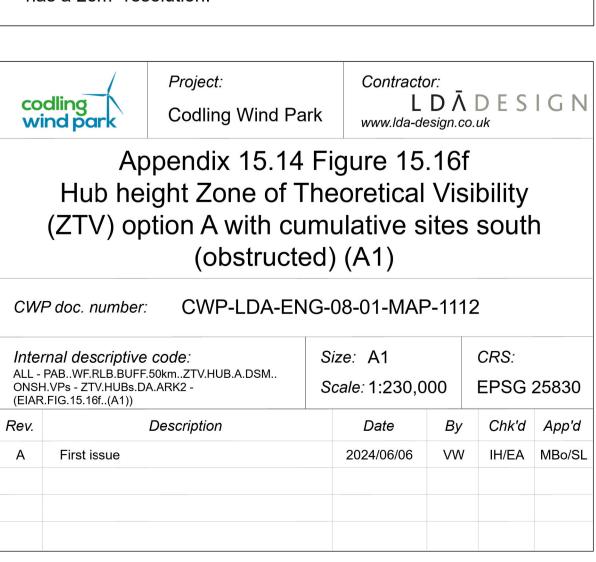
Hub height Zone of Theoretical Visibility (ZTV) (obstructed)

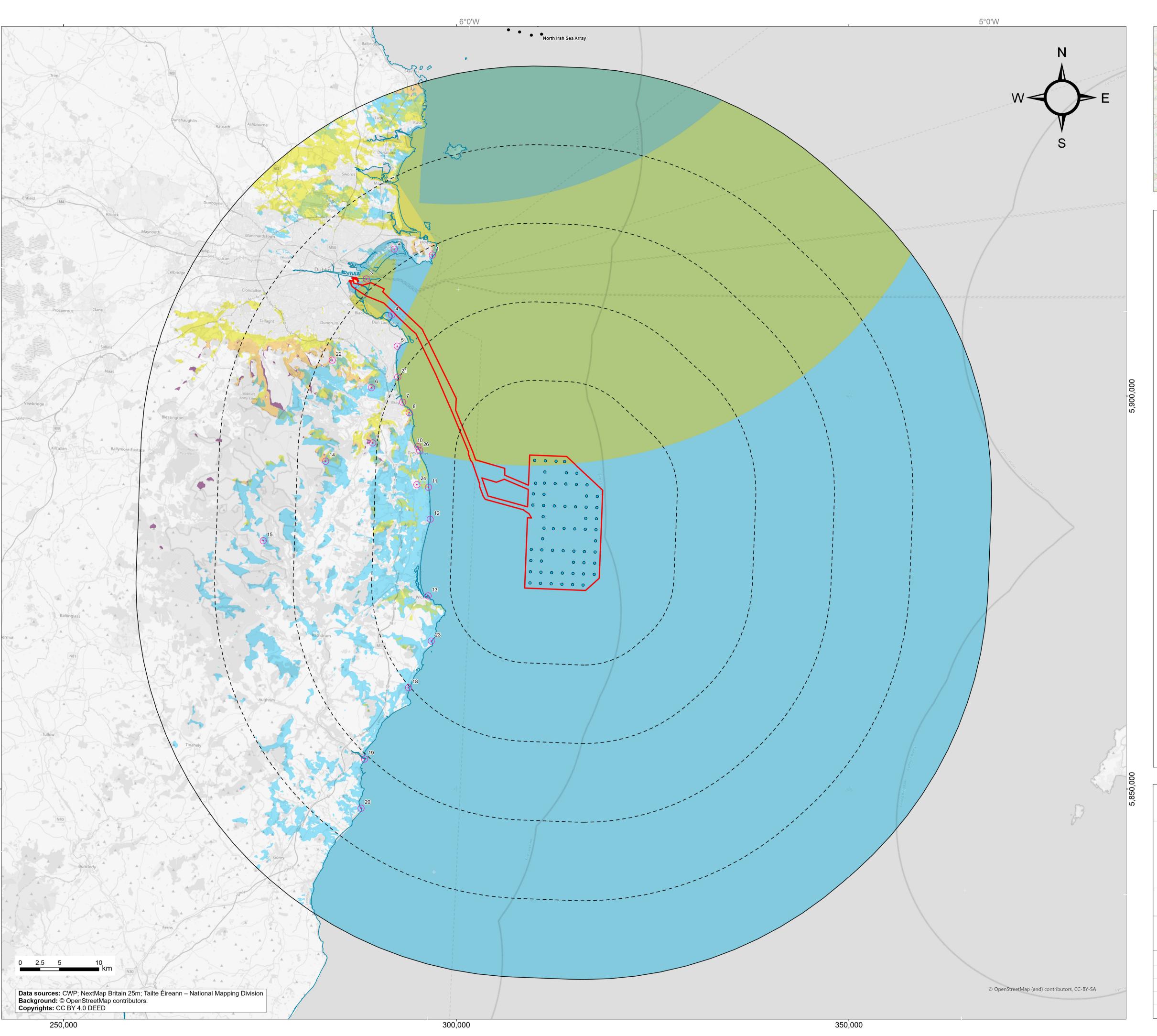


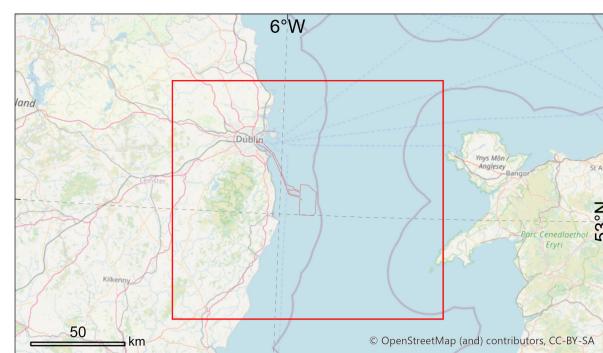
ZTV notes

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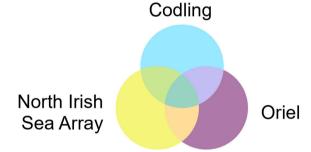
SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm

Low water mark

- Wind Turbine Generator (WTG) option B location
- North Irish Sea Array
- Viewpoints selected for the SLVIA

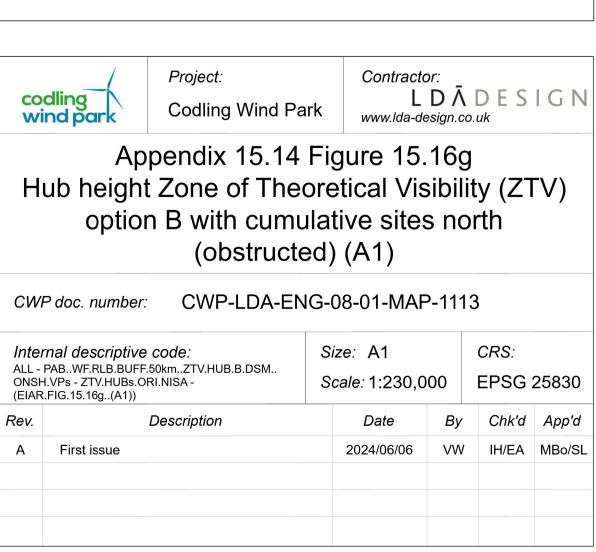
Hub height Zone of Theoretical Visibility (ZTV) (obstructed)

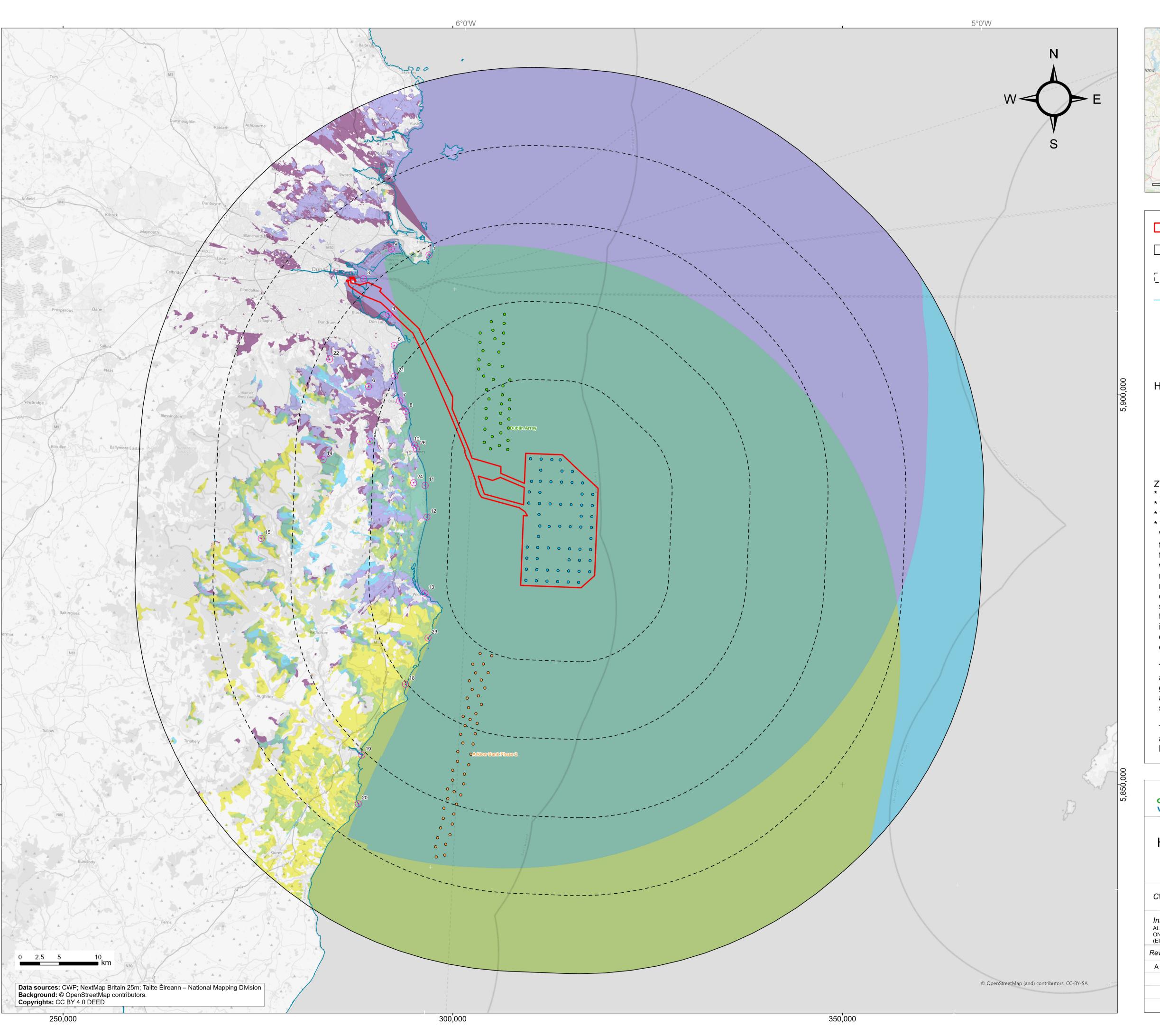


ZTV notes

- * 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.

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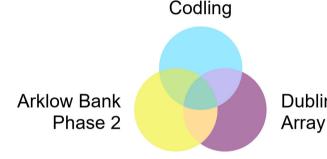
SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm

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)

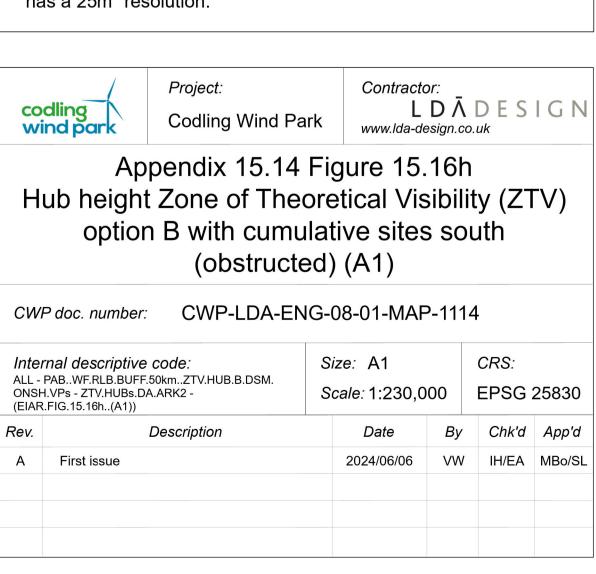


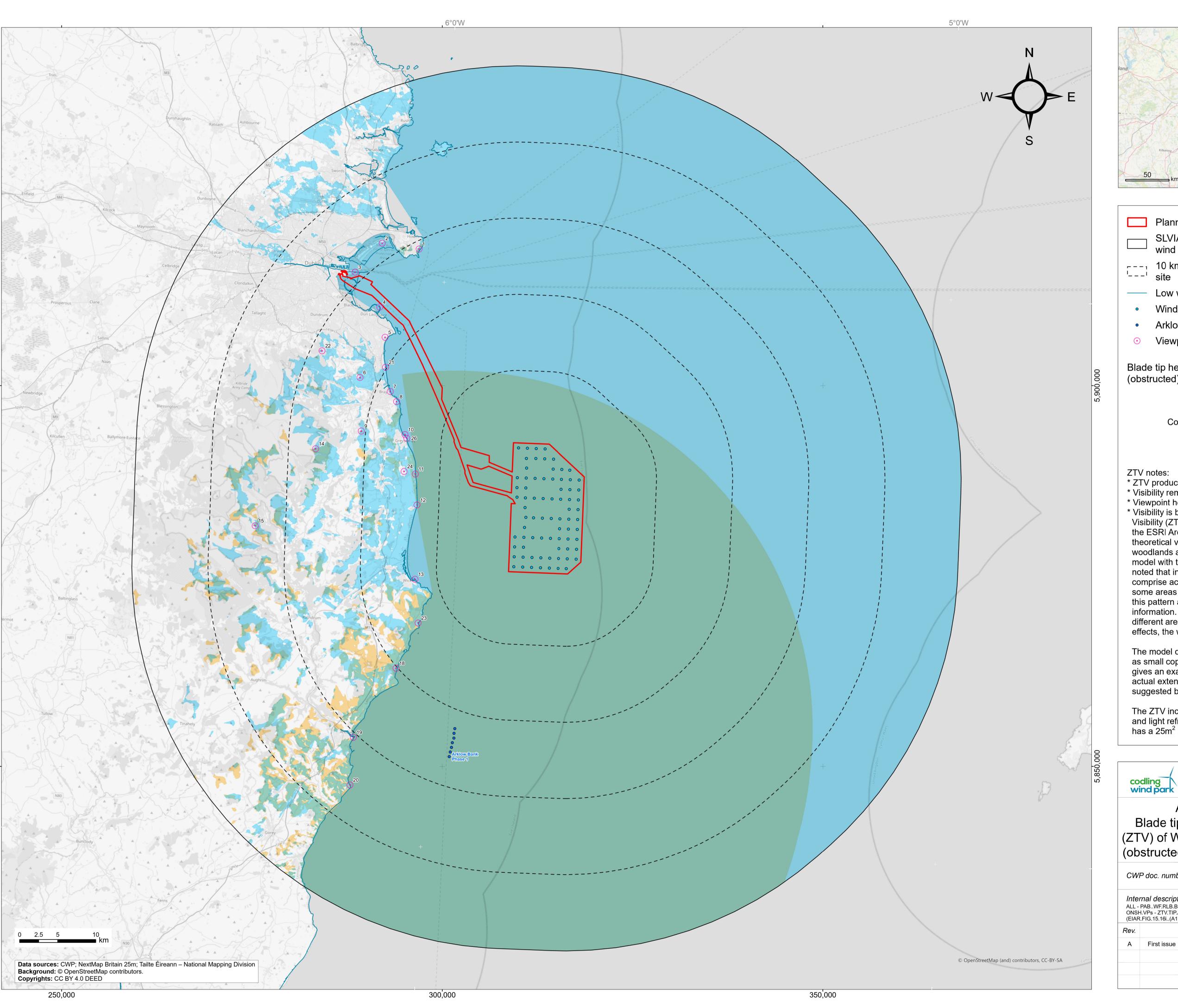
ZTV notes

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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

Low water mark

- Wind Turbine Generator (WTG) option A location
- Arklow Bank Phase 1
- Viewpoints selected for the SLVIA

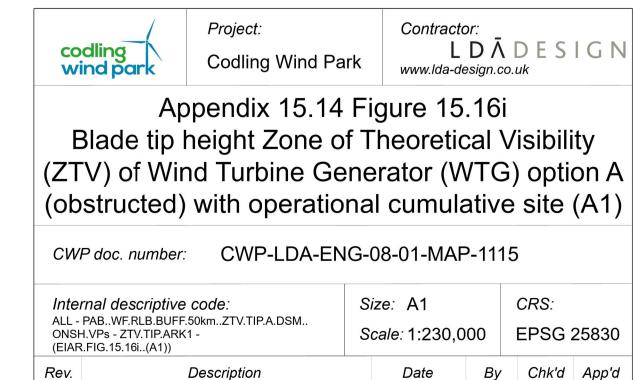
Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)



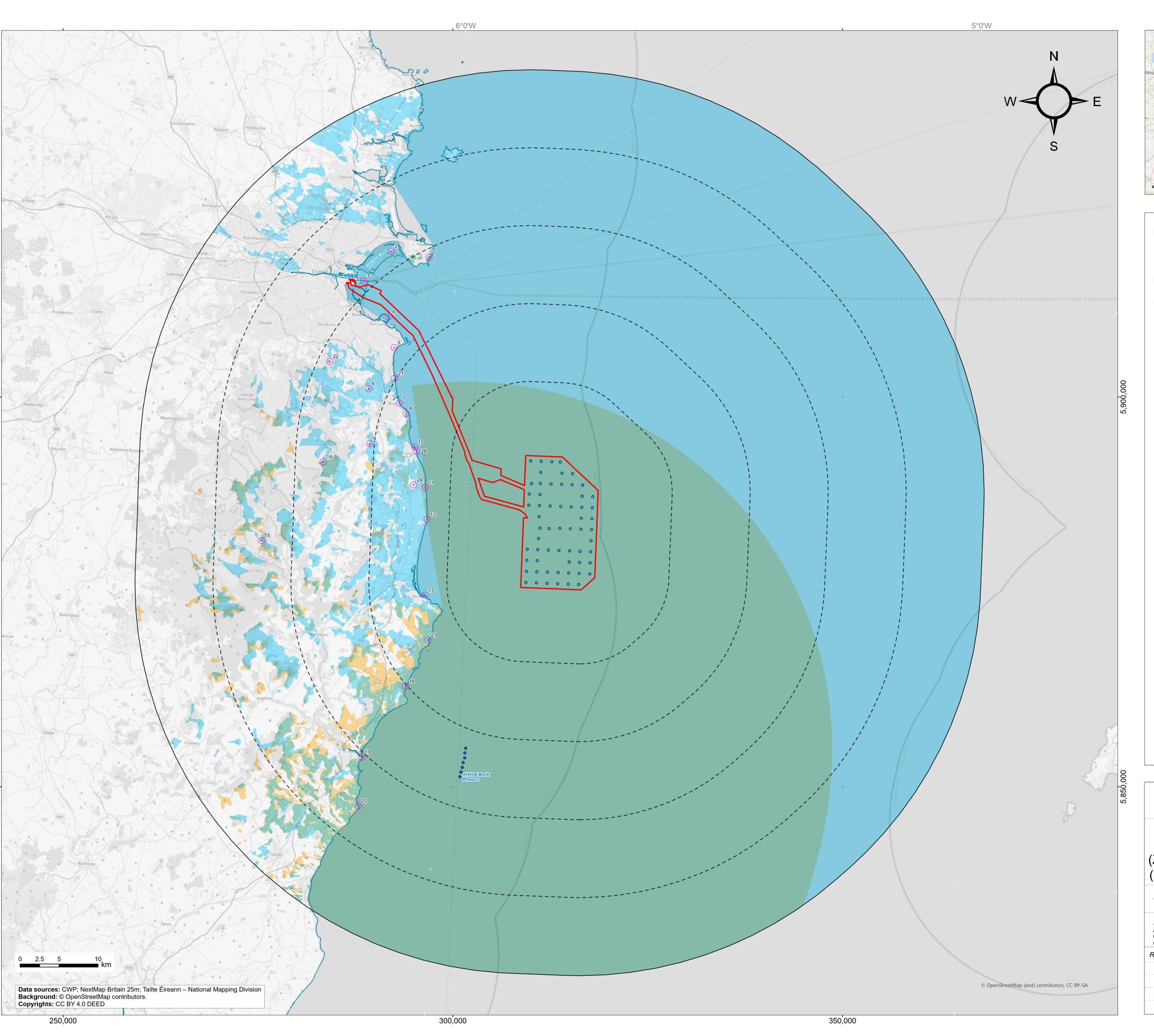
- * ZTV produced for 75 turbines of 288m blade tip height.
- * Visibility removed beyond the 50 km study area.
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The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on Nextmap 25 DSM data and has a 25m² resolution.



2024/06/06





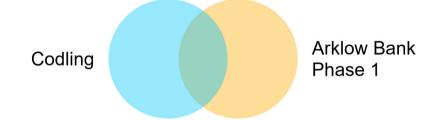
SLVIA study area (50 km buffer of the array site / wind farm site)

--- 10 km incremental buffers of array site / wind farm

Low water mark

- Wind Turbine Generator (WTG) option B location
- Arklow Bank Phase 1
- Viewpoints selected for the SLVIA

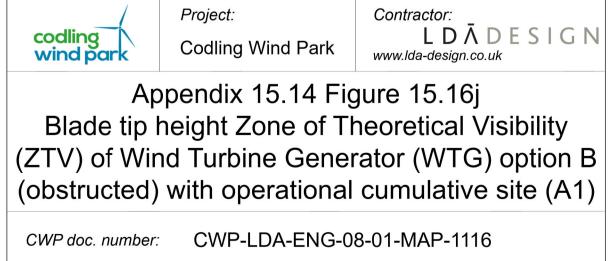
Blade tip height Zone of Theoretical Visibility (ZTV) (obstructed)



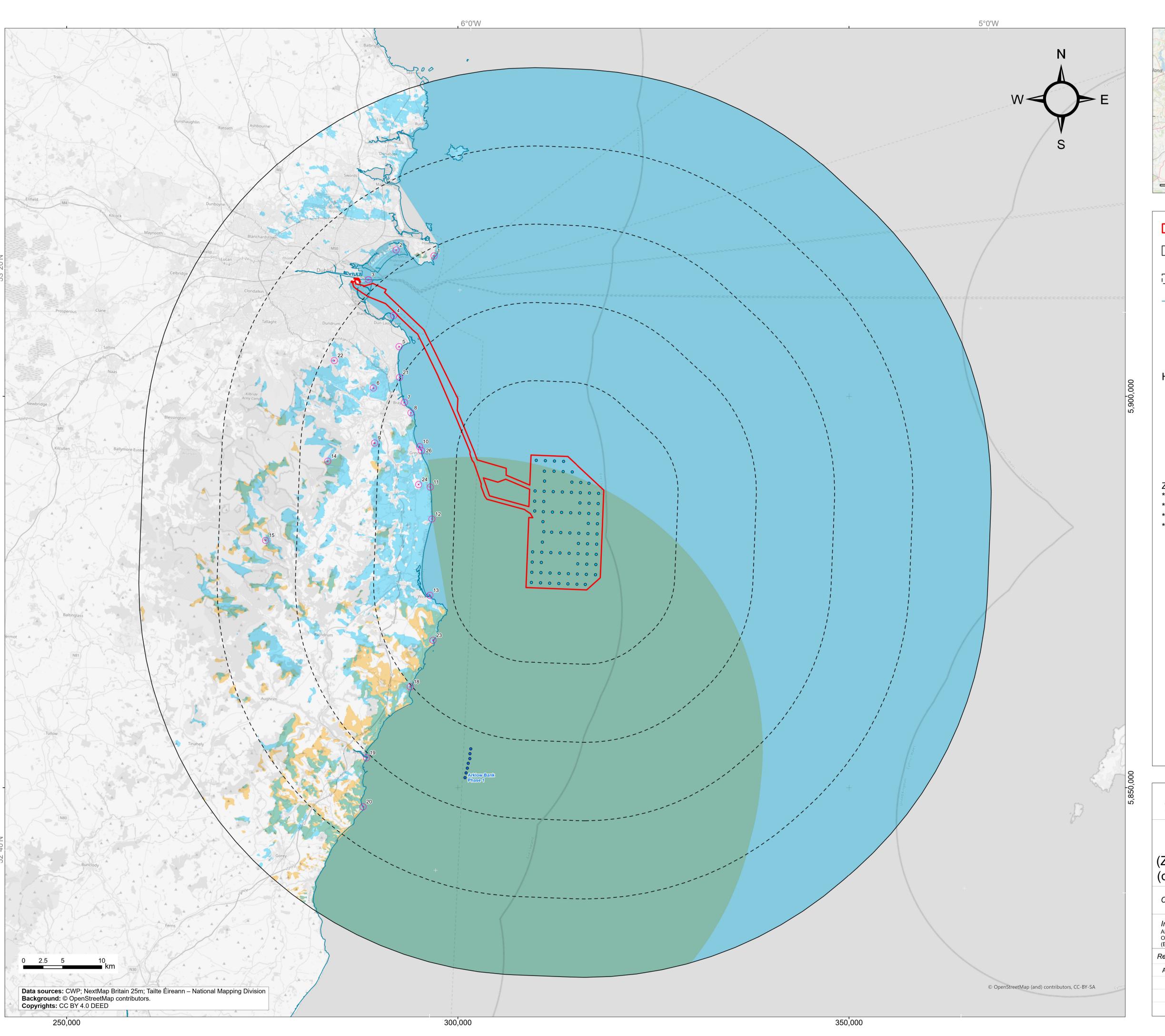
ZTV notes

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Internal descriptive code: ALL - PABWF.RLB.BUFF.50kmZTV.TIP.B.DSM ONSH.VPs - ZTV.TIP.ARK1 - (EIAR.FIG.15.16j(A1))		Size: A1 Scale: 1:230,000		00	CRS: EPSG 25830	
Rev.	Description		Date	Ву	Chk'd	App'd
Α	First issue		2024/06/06	VW	IH/EA	MBo/SL





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

10 km incremental buffers of array site / wind farm

Low water mark

- Wind Turbine Generator (WTG) option A location
- Arklow Bank Phase 1
- Viewpoints selected for the SLVIA

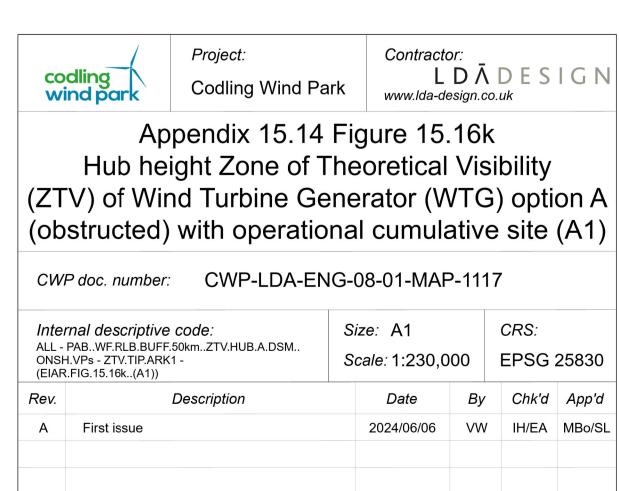
Hub height Zone of Theoretical Visibility (ZTV) (obstructed)

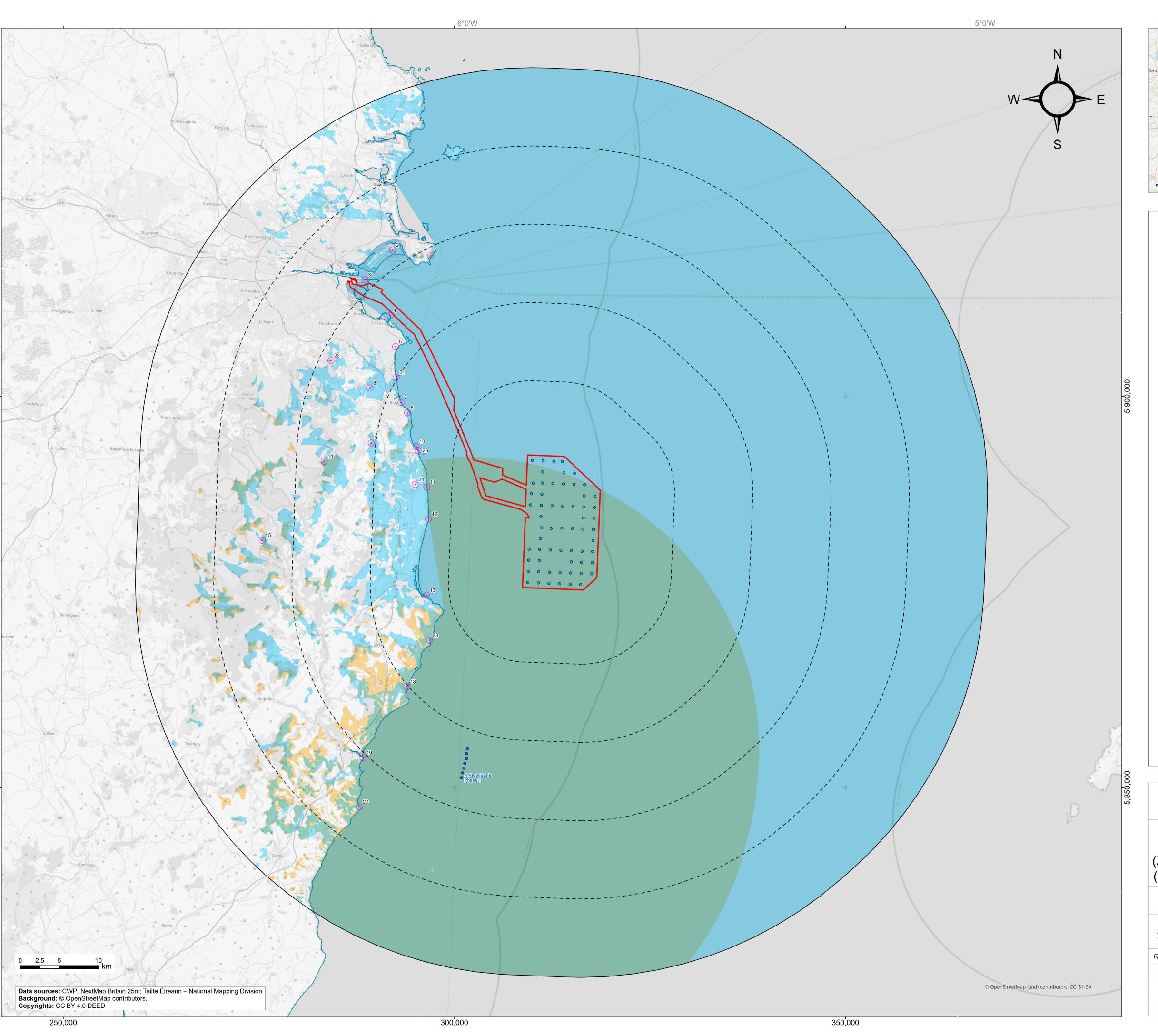


ZTV notes

- * ZTV produced for 75 turbines of 163m hub height.
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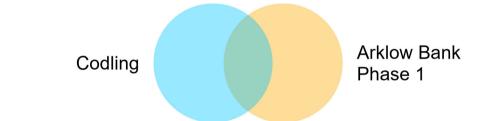
SLVIA study area (50 km buffer of the array site / wind farm site)

10 km incremental buffers of array site / wind farm

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.
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