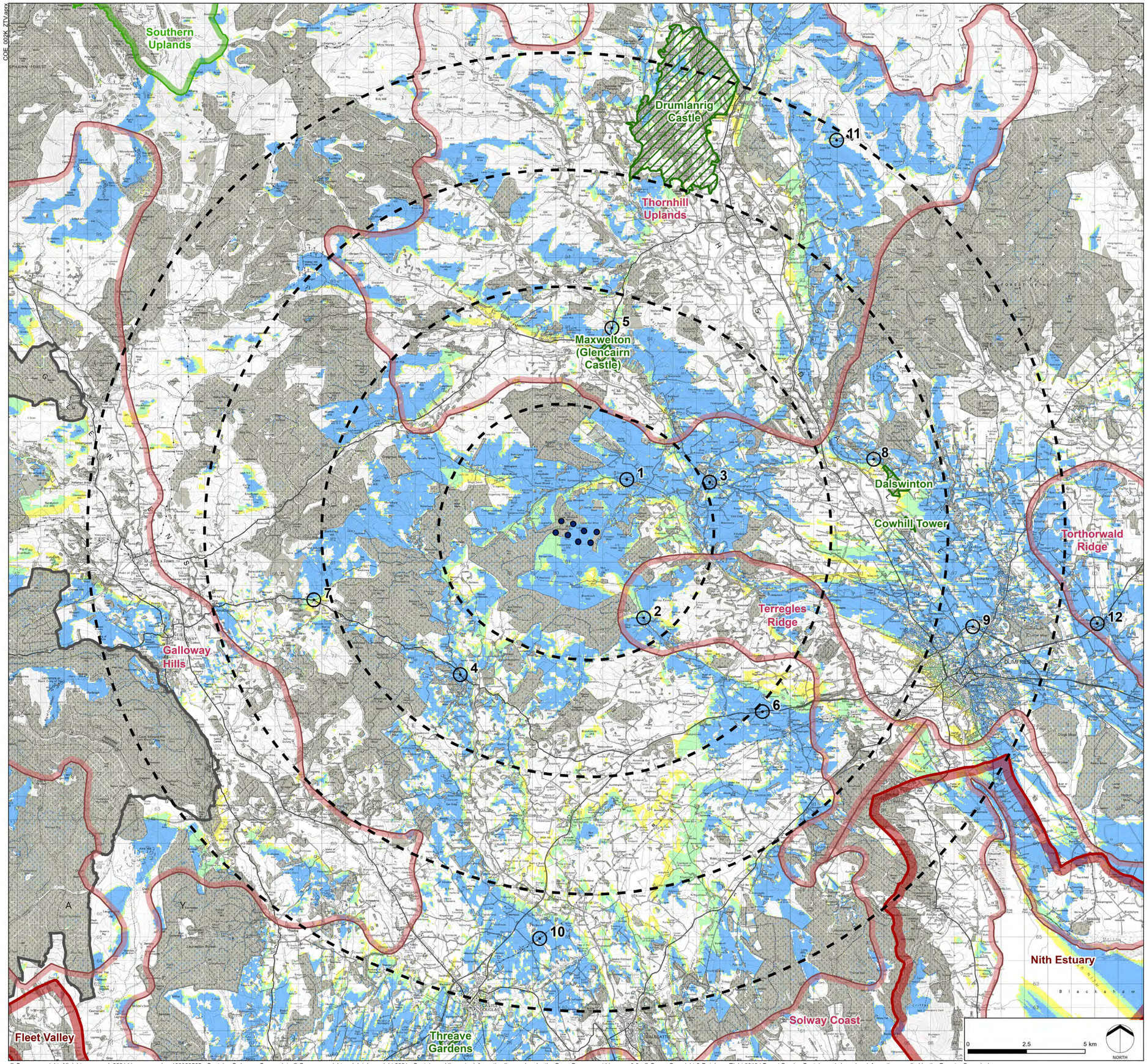

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COLLIESTON WIND FARM

FIGURE 7.2

Zone of Theoretical Visibility with Screening Effect of Woodland and Settlement

KEY

- Proposed Collieston wind turbines
- Distance radii from outermost turbine (5, 10, 15, 20km)
- Viewpoints
- Wild Land Areas
- National Scenic Areas (NSA)
- Gardens and Designed Landscapes
- Galloway Dark Skies - Core Area
- Regional Scenic Areas (RSA)-Dumfries & Galloway
- Sensitive Landscape Areas (SLA) - East Ayrshire
- Woodland (modelled at 15m)

Zone of Theoretical Visibility (230m to blade tip)

- 1 - 3 turbines may be visible
- 4 - 6 turbines may be visible
- 7 - 8 turbines may be visible

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

Layout file: obvs-230m-BT-T50-45km.shp
Terrain data: T50-DSM.asc
Viewer's eye height: 2m above ground level
Calculation grid size: 50m

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

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

A digital surface model (DSM) has been derived from OS Terrain 50 height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7m and woodland an assumed height of 15m, representing a conservative estimate of average heights within the study area.

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

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 50m² resolution.

Projected Coordinate System: British National Grid

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