Landscape protection is required in those areas where views or the setting of the Antonine Wall could be affected. In other areas suitably designed wind turbine groups which generally fit within the landscape could potentially be accommodated even though they may have an impact on the urban fringe landscape locally. Small scale development less than 20m in height may be acceptable where it relates well to the existing landscape in terms of scale and design, and where it relates well to existing buildings in terms of scale and location. All applications for smaller turbines will be decided on their own merits and must include detailed landscape and visual impact assessment including consideration of all criteria adopted in this study.

11.2 A relatively narrow, flat open valley between Falkirk and Grangemouth, its character is heavily influenced by adjacent industrialisation, other built development and major communication routes. At the northern end the area widens out where the River Carron meets the Forth & Clyde Canal, providing landscape interest including the location of 'The Helix' community project. Elsewhere the area lies within views from many residential properties in the urban fringe.

11.3 Some wind energy development within the urban fringe may be appropriate where it is in keeping with the character of the landscape, where existing transport routes, associated infrastructure and other development may combine to reduce the impact of new turbines. However if it was considered that the addition of new development would breach the threshold or 'tipping point' of landscape change, the Council would need to consider whether the resulting landscape, visual and cumulative effects would be acceptable, particularly where sited close to residential property.

12. Capacity within Landscape Character Area 5(i) *Manuel Farmlands*

12.1 There is Low-Moderate capacity to accommodate wind energy development. The larger wind turbine typology heights above 50m are unlikely to be acceptable, with potentially significant effects on key visual criteria in particular. Landscape protection from wind energy development should be the objective in accordance with the Special Initiative for Residential-Led Regeneration (SIRR) in the Structure Plan which has identified the area as having the potential for large scale development which would significantly change existing landscape character and which is unlikely to be compatible with wind energy development. Small scale development less than 50m in height may be acceptable where it relates well to the existing landscape in terms of scale and design, and where it relates well to existing buildings in terms of scale and location. All applications for smaller turbines will be decided on their own merits and must include detailed landscape and visual impact assessment including consideration of all criteria adopted in this study.

12.2 Turbines located on prominent ridges or which affect views from the 'important' viewpoint at Cockleroy in West Lothian or sensitive routes to the Bathgate Hills or the Forth, or from / to the Antonine Wall, could create significant visual impact.

12.3 The *Manuel Farmlands* is a small-medium scale, smoothly rolling landscape, with a variety of landuses, some a legacy of previous minerals working, with surrounding farmland and isolated estate houses with policy woodlands. The semi-complex character due to the fragmented pattern of land uses would suggest that some wind energy development could be accommodated, but impacts on key visual criteria would need to be carefully considered.

13. Capacity within Landscape Character Area 6(i) *Bo'ness Coastal Hills*

13.1 There is Low-Moderate capacity to accommodate wind energy development. The larger wind turbine typology heights above 50m are unlikely to be acceptable, with potentially significant effects on key visual criteria in particular. Landscape protection should be the objectiveto maintain the existing landscape character and visual resource, to retain or reinforce its present character and protect its quality and integrity. Small scale development less than 50m in height may be acceptable where it relates well to the existing landscape in terms of scale and design, and where it relates well to existing buildings in terms of scale and location. All applications for smaller turbines will be decided on their own merits and must include detailed landscape and visual impact assessment including consideration of all criteria adopted in this study.

13.2 Views from 'important' viewpoints at the House of Binns Tower and Cockleroy in West Lothian, and from sensitive routes cover significant parts of the area. Prominent ridges are important to intervisibility where wind turbines would be particularly visible. There are important views from the *Bo'ness Coastal Hills* to the Bathgate Hills and across the Firth of Forth to the Ochil Hills beyond the Falkirk Council boundary, where wind turbines would be harmful to the setting and landscape context of the landscape character area. The northern part of the landscape character area has a strong visual relationship with the Antonine Wall World Heritage Site (WHS) with views to and from the WHS where development has the potential to affect the setting of the Wall.

13.3 Turbines would intrude on views from popular walking routes. They would contrast with the settled nature and scale of the landscape. When seen in views of features in the distance they could intrude on the composition and affect the perception of distance. There are important 'iconic' views from Blackness Castle across the eastern part of the *Bo'ness Coastal Hills* where wind energy development would be inappropriate.

13.4 The six 20m tall operational turbines within farmland at Muirhouse lie within the *Bo'ness Coastal Hills.* These generally relate well to the existing simple pattern of the landscape in terms of location, scale and design. Any similar turbine development must relate to the field pattern and maintain separation to avoid cumulative impacts. Despite proximity to the Forth there is not a strong horizontal emphasis to the area due to the undulating hills which provide great contrast in views and limit scale to medium. Large turbines would affect openness when viewed against the coast and would not fit with the scale and semi-open character.

13.5 Potential cumulative effects of new development seen within views of the existing turbines at Muirhouse will need careful assessment. There is the potential for 'in combination', 'in succession' and/or 'sequential' cumulative

effects from locations within the *Bo'ness Coastal Hills*and when travelling through adjacent character areas which could create the perception of a landscape dominated by wind turbines where the landscape, and in particular visual sensitivity, is unable to accept such a level of change.

14. Capacity within Landscape Character Area 6(ii) *Grangemouth / Kinneil Flats*

14.1 There is Moderate-High capacity to accommodate wind energy development. Landscape accommodation or landscape change is the most appropriate objective where the landscape could become a landscape with some wind energy development.

14.2 The character area occupies the flat reclaimed saltmarsh between Grangemouth and Bo'ness. Despite being largely open, it has a unique, developed coastal character due to the presence of the petrochemical works, docks and other industrial installations on the wide, expansive, large scale coastal flats alongside the Forth. Large turbines taller than 100m could relate visually to the vertical nature of the industrial development nearby, where smaller and single turbines could appear trivial and out of scale in the context of the nearby industry. Blade movement could have a visual relationship with the movement of flames, steam and other outputs from the oil refinery and chemical works.

15. Capacity within Landscape Character Area 6(iii) *Skinflats*

15.1 There is Moderate capacity to accommodate wind energy development. The larger wind turbine typology heights above 50m are unlikely to be acceptable. Landscape protection is requiredin those areas where the objective is to maintain the existing landscape character and visual resource, to retain or reinforce its present character and protect its quality and integrity. In other areas suitably designed wind turbine groups which generally fit within the landscape could potentially be accommodated even though they may have an impact on the urban fringe landscape locally. Small scale development less than 50m in height may be acceptable where it relates well to the existing landscape in terms of scale and design, and where it relates well to existing buildings in terms of scale and location. All applications for smaller turbines will be decided on their own merits and must include detailed landscape and visual impact assessment including consideration of all criteria adopted in this study.

15.2 Key landscape characteristics are the large scale, open, flat and very low lying, and horizontal coastal margin. The scale and character of the coastal landscape would suggest that larger turbines and groups could be an appropriate fit. However, the *Skinflats* are highly sensitive visually with extensive views of the Forth and to the Ochil Hills beyond from sensitive transport corridors and other amenity routes. The setting of the character area and in particular the contrast between the flat open coastal margins and the distinctive landmark hills is especially sensitive. Turbines could interrupt the strong horizon of the Forth and views of the long horizontal form of the Ochils, and it is important that turbines do not detract from these key characteristics.

15.3 There is a relatively narrow visual cone from the 'important' viewpoint at Airth Castle where wind energy development would be inappropriate where the character of the landscape and visual amenity was adversely affected.

15.4 There are close views of existing power lines and pylons which appear as incongruous vertical features into this characteristically flat landscape. Turbines could create visual confusion with the dominant foci of pylons, and would accentuate the visual impact. Even small turbines could appear out of scale with the wide open landscape, where fields are large and skies are huge.

16. Capacity within Landscape Character Area 6(iv) *Carse of Forth*

16.1 There is Moderate capacity to accommodate wind energy development. The larger wind turbine typology heights above 50m are unlikely to be acceptable. Landscape protection is requiredin those areas where the objective is to maintain the existing landscape character and visual resource, to retain or reinforce its present character and protect its quality and integrity. In other areas suitably designed wind turbine groups which generally fit within the landscape could potentially be accommodated even though they may have an impact on the urban fringe landscape locally. Small scale development less than 50m in height may be acceptable where it relates well to the existing landscape in terms of scale and design, and where it relates well to existing buildings in terms of scale and location. All applications for smaller turbines will be decided on their own merits and must include detailed landscape and visual impact assessment including consideration of all criteria adopted in this study.

16.2 Key landscape characteristics are the large scale, open, flat and very low lying, horizontal coastal margin. The scale and character of the coastal landscape would suggest that larger turbines and groups could be an appropriate fit. However, the *Carse of Forth* is highly sensitive visually with extensive views of the Forth and to the Ochil Hills beyond from sensitive transport corridors and other amenity routes. Other key visual sensitivities are views from 'important' viewpoints at Airth Castle and the Falkirk Wheel. The setting of the character area and in particular the contrast between the flat open coastal margins and the distinctive landmark hills is especially sensitive. Turbines could interrupt the strong horizon of the Forth and views of the long horizontal form of the Ochils, and it is important that turbines do not detract from these key characteristics.

16.3 Existing power lines and pylons appear as incongruous vertical features into this characteristically flat landscape. Turbines would create visual confusion with the dominant foci of pylons, and would accentuate the visual impact. Even small turbines could appear out of scale with the wide open landscape, where fields are large and skies are huge.The perception of vertical scale afforded by the minor hills at Airth and Dunmore limits acceptable turbine height, where even the smallest turbines would be inappropriate.

APPENDIX 4: LIST OF SENSITIVE ROUTES AND KEY VIEWS

VIEW	GRID REF	
Specific & general locations with open views:		
Falkirk Wheel	NS852801	Important visitor attraction – elevated views to the north, west and east
Bo'ness foreshore & coastal section of Bo'ness railway	NS985815 approx.	Coastal paths / walks-views to the west up the Forth and to the north & east, although generally a narrow area of view
Coast near Dunmore / Airth	NS890900 approx.	Coastal path along foreshore. Views north to the Ochils, east & southeast down the Forth & south across the carseland
Falkirk - Slamannan Rd / Bantaskine area (south side of Falkirk) (see B803 below)	NS875786 approx.	Views over Falkirk north to the Ochils & east down the Forth. Also views up from southern edge of Falkirk, southwards
Upper Maddiston & Wallacestone / Shieldhill environs (including Maddiston to California minor road on ridge)	NS926765 approx.	Views predominantly to northwards across Falkirk & westwards. Also views up from southern edge of Wallacestone, Rumford & Maddiston, southwards
Denny Muir fringes - Minor road between Drumbowie Reservoir & B818 & environs of Myot Hill	NS 772825 approx.	Open views to the east over much of lowland Falkirk to the Forth. Minor roads appear well used for walking / cycling. Also views up to the hills & hill fringes & northwards across the *Carron Glen*
Bo'ness hills	NS995793 approx.	High ground / minor road network between Bo'ness & Linlithgow. Popular walking / cycling from Bo'ess & leading to Birkhall Station on Bo'ness railway. Views generally west to south and also eastwards to Airngath Hill , Tower at House of the Binns & the Bathgate Hills in West Lothian
Whitecross / B825	NS982770 approx.	Views eastwards of the Avon Viaduct , *Avon Valley* & the Bathgate Hills
West Lothian Golf Course south of Bo'ness/ Bomains	NT005793 approx.	On Falkirk Council boundary – views mainly northwards across the Forth and some views to the west
Blackness	NT055803	Views west up Forth, in particular from Blackness Castle which is an 'iconic' viewpoint
Antonine Wall and Buffer Zone	NS815795 etc.	Specific sections outside urban areas
Torwood (eastern edge to A9)	NS842848 approx.	Open views E over flat land to Letham Moss & carseland
Minor roads in Touch Hills Fringe between M80/A872 & A9	NS821845 approx.	Views westwards into hill fringes & *Kilsyth / Denny Hills*

Denny / Dunipace	NS805815 approx.	Glimpses through built up areas north-eastwards to *Touch Hill Fringe* & westwards to *Denny Hills Fringe*
Roads / routes with open sections giving long views:		
B803 Slamannan – Falkirk road	NS850752 approx.	Views from high points on the B803 north of Slamannan, mainly northwards across Falkirk Council area & south across the plateau, & westwards
B8022/ B825 Slamannan / Limerigg to Avonbridge	NS887720 approx.	Views north across *Slamannan Plateau* – including views southwards from the B825 east of Avonbridge
B8028 Avonbridge toFalkirk	NS909745 approx.	Views across *Slamannan Plateau* - main views are southwards between Avonbridge & California, & north from northern edge of California & from the minor road west of Shieldhill
B805 / A801	NS944760 approx.	Views from south of Maddiston, southwards
'C' road between Allandale to Bantaskine (Drum / Greenrig)	NS861786 approx.	Views north over Bonnybridge including new viewpoint & Callendar Estate cycle trail, and other viewpoints from high ground on minor roads running north/south between the 'C' road & Bonnybridge
B816 between Bonnybridge and Tamfourhill	NS846795 approx.	Views north from Roughcastle Community Woodland raised viewpoint on former workings
A876- Clackmannan / Kincardine Bridge	NS920869 approx.	On the approaches, views to the east across the Forth and to the west across the carseland
M9 & M876	NS890849 approx.	Elevated sections give views to the southwest and to the east to the Ochil Hills
A872 / M80 north of Dunipace / Denny	NS803838 approx.	Views west to *Kilsyth / Denny Hills*, especially from minor road to west of M80
A803 Linlithgow – Polmont	NS927782 approx.	Sporadic open views to the south
A905 north of Grangemouth	NS906847 approx.	Open views to the west and east across the carselands
A88 (north of Stenhousemuir)	NS900846 approx.	Views north to M9 Motorway / Letham Moss. East of M9 views are dominated by Longannet power station – west of M9 there are panoramic views to the southeast to the Bathgate Hills
Shieldhill – Brightons Road (B810)	NS906774 approx.	Views mainly to the east and north
Forth & Clyde Canal / Union Canal	NS856798 approx.	From open sections where views are predominantly to the north (there is generally higher ground to the south)
Linlithgow-Polmont section of railway	NS983769 approx.	Open rural views, in particular from Avon Viaduct
Edinburgh-Glasgow railway line – environs of Falkirk High Station	NS882790 approx.	Open views to north and glimpses mostly from surrounding roads on high ground
Bo'ness – Kinneil steam railway	NS967784 approx.	Visitor attraction with some views out across coastal hills and rolling farmlands
A803 on western council	NS760787 approx.	A803 including parking area on council boundary with extensive views to southeast across bonny water to northern

boundary		plateau farmlands
M80/B816 on western council boundary at Castlecary	NS788783 approx.	Views north from M80 through arches of railway viaduct to *Denny Hill Fringe*

APPENDIX 5: LOCAL ECOLOGICAL SITES

WILDLIFE SITES
ALMOND BING NS 961 763
BALQUATSTONE NS 865 725
BARLEYSIDE NS 862 759
BLACKHILL MOSS NS 813 776
BLACK LOCH NS 863 702
BO'NESS FORESHORE NS 982 811
BONNYFIELD QUARRY NS 815 800
BONNYBRIDGE DAM NS 833 796
BRAES WOOD NS 795 850
CALIFORNIA NS 903 763
CALLENDAR WOOD & LAKE NS 902 787
CAMELON RIVERSIDE NS 870 813
CANDIE MIRE NS 927 738
CARRIDEN WOOD NT 022 804
CASTLECARY WOOD NS 808 772
CLEUCH PLANTATION NS 887 775
COWDEN NS 767 803
CRAIGBANK QUARRY (AVONBRIDGE) NS 908 722
DRUMBROIDER NS 919 753
DUNMORE MOSS AND WOOD NS 870 890; NS 880 885
DRUMBOWIE RESERVOIR NS 784 810
EASTER DRUMCLAIR NS 865 711
EASTER GREENRIG NS 827 738
FORTH & CLYDE CANAL NS 805 790 - NS 843 804
GARBETHILL MOSS NS 831 755
GRANGENEUK MOSS NS 820 736
GRAYSTONE KNOWE NS 810 760
HAINING WOOD NS 955 774
JUPITER URBAN WILDLIFE CENTRE NS 918 810
KINNEIL ESTATE NS 980 803
LITTLE DENNY RESERVOIR NS 800 814
LOCH ELLRIG AND GARDRUM MOSS NS 886 750
LOCHGREEN HOSPITAL NS 875 786
LOCHGREEN MOSS NS 818 776
MADDISTON WEST NS 929 763
MUIRAVONSIDE NS 965 753
NEW CRAIG (AUCHENGEAN) NS 855 767
NORTH WALTON BURN NS 806 763
PARKFOOT MARSH NS 811 794
POLMONT WOODS NS 945 795
POW BURN & ESTUARY NS 915 874
RASHIEHILL MIRE NS 842 728
RIGHEAD NS 903 741
RIVER AVON (NORTH & SOUTH GLENS) NS 958 740
ROUGHCASTLE WOOD NS 844 800
RUMFORD WEST NS 924 769
SEABEGS WOOD NS 815 793
SHIELKNOWES MOSS NS 827 725
SKIPPERTON GLEN NS 809 785
SOUTH DRUM MOSS NS 830 775

SOUTH TORWOOD NS 827 835
STANDBURN NS 928 750
STONEYWOOD NS 802 828
TAKMADOON(DENNY MUIR) NS 738 818
TORWOOD GLEN NS 832 855
TORWOOD MIRE NS 825 844
UPPER AVON MIRES NS 829 734

WALLACEBANK WOOD NS 848 848
WESTER DRUM NS 829 781
WESTERGLEN MOSS NS 875 775
WEST MAINS POND NS 905 814
WESTER WHIN NS 867 685
WESTQUARTER BURN NS 906 786

SITES OF IMPORTANCE FOR NATURE CONSERVATION (SINCs)
AVONBANK/BIRKHILL NS 965 786
BANTASKINE ESTATE NS 869 793
CARRON MEANDER NS 896 826
DALES WOOD NS 818 850
FALKIRK GASWORKS NS 895 812
GLENYARDS NS 817 789
HALL WOOD, HIGH BONNYBRIDGE NS 828 793
HALLGLEN HAVEN NS 889 782
LETHAM MOSS NS 885 856
LIMERIGG PONDS NS 858 707
LITTLE BLACK LOCH NS 875 706
MADDISTON NS 942 768
MILNQUARTER, HIGH BONNYBRIDGE NS 825 797
NORTH STENHOUSEMUIR NS 869 846
POLMONT PARK NS 931 791
POLMONT STATION NS 928 783
REDDING GRASSLANDS NS 918 787
RUMFORD EAST NS 935 772
SOUTH DRUM CLAYPIT NS 823 775
SOUTH POLMONT NS 942 782
STONERIDGE NS 873 702
SUMMERFORD NS 868 795
TIPPETCRAIG NS 829 771
UNION CANAL NS 866 794
WALLACESTONE NS 914 771

APPENDIX 6: GUIDANCE ON LANDSCAPE AND VISUAL DETAILS REQUIRED TO SUPPORT WIND TURBINE APPLICATIONS

This guidance gives the minimum level of landscape and visual information that is required to support wind energy proposals for 1-3 turbines over 15m high. This information is essential to enable the council to fully assess the proposal. It is based on the SNH guidance 'Natural Heritage Assessment of small scale wind energy projects which do not require formal Environment Impact Assessment'. A more fully detailed Landscape and Visual Impact Assessment (LVIA) will be required in certain situations and where an EIA is required.

1. For ALL turbine proposals

The following basic landscape and visual information is required:

- Turbines - details of hub and tip height, design and colour
- Location plans - exact position(s) of turbines and associated structures, including details of any micrositing proposed.
- Turbine bases and working area – details of earthworks and levels proposed
- New and existing access tracks to turbine - details of location, construction, levels and access point to public road
- Construction compounds and hardstandings around turbine(s) – details of levels, construction and reinstatement proposed (if temporary)
- Borrow pits – details of locations, size, levels
- Landscape features to be removed - vegetation / trees, fences, walls, and other features removed for the turbine(s), access track and associated works
- Transformer and ancillary structures – locations and details
- Cable routes and grid connection – locations and ground reinstatement

2. For turbines of 15 - 50m height to tip

Information in section 1 (above) plus the following are required, as a minimum:

a) Zone of Theoretical Visibility (ZTV) map to turbine tip coving an area of 15km radius from the turbine(s); it is also valuable to have a ZTV to turbine hub.

b) Wirelines and photomontages from key viewpoints to illustrate the proposal; these should be agreed with the planning authority on the basis of the ZTV information and located where the turbines are visible.

c) A base plan of all wind turbines that are operational and proposals that are in the public domain to 30km from the proposal (this depends on location). The council has information on the situation in its own area, but for elsewhere the adjacent authorities may hold information.

d) A focussed cumulative assessment of the proposal with all current turbine applications, all consented and all constructed turbines : the assessment should cover (a) all turbines of any height within 2km of the proposal, (b) all turbines over 25m to tip between 2 – 5km of the proposal and (c) all turbines over 50m to tip between 5 - 15km of the proposal. This may require joint ZTVs to tip of the proposal with those of other wind turbines. The Council may also advise that a detailed assessment is required where there are many small scale wind turbine proposals within an area.

e) Where the proposal is within or close to an Area of Great Landscape Value (or close to an AGLV of a neighbouring local authority), an assessment of the proposal's effects on the AGLV is essential; details in section 3(b) and 3(c) below should be supplied for the AGLV area, with a ZTV superimposed on the AGLV.

3. For turbines of over 50m height to tip

Information in section 1 (above) plus the following are required, as a minimum:

a) Zone of Theoretical Visibility (ZTV) map to turbine tip covering an area of up to 35km radius from the turbine(s) in accordance with SNH's guidance [1]; ZTVs to hub should also be provided to assess the extent of the turbine that is visible.

b) Wirelines and photomontages from key viewpoints to illustrate the proposal; these should be agreed with the planning authority on the basis of the ZTV information and located where turbines are visible. An assessment of the sensitivity of the viewpoint, magnitude of change experienced and the overall level of effect should be assessed.

c) An assessment of the sensitivity of the landscape of the immediate site and the surrounding local landscape character areas, an assessment of the magnitude of change on receptors as a result of the proposal, and an assessment of the overall level of effect and residual impacts; the ZTV superimposed on the local landscape character areas is helpful.

d) A base plan of all wind turbines that are operational and proposals that are in the public domain up to 60km from the proposal. This depends on location, but will be required in many locations given the potential for cumulative effects. The council has information on the situation in its own area, but for elsewhere the adjacent authorities may hold information.

e) A focussed cumulative assessment of the proposal with all current turbine applications, all consented and all constructed turbines: the assessment should cover (a) all turbines of any height within 2km of the proposal, (b) all turbines over 25m to tip between 2 – 5km of the proposal and (c) all turbines over 50m to tip that are over 5 km of the proposal. This may necessitate joint ZTVs to tip of the proposal with those of other wind turbines. The Council and SNH may also advise that a detailed assessment is required where there are many small scale wind turbine proposals within an area.

f) Where the proposal falls within or close to an AGLV (or close to an AGLV of a neighbouring local authority), a full assessment of the proposal's effects on the AGLV is essential; a ZTV superimposed on the AGLV area must be supplied.

[1] Visual Representation of Windfarms Good practice Guidance, SNH 2006, table 2 page 36 http://www.snh.gov.uk/planning-and-development/renewable-energy/onshore-wind/landscape-impacts-guidance/

Zone of Theoretical Visibility (ZTVs) should be on a 1:50,000 Ordnance Survey map base with the OS base detail clearly visible through shaded areas of visibility. **Photomontages from key viewpoints** should be based on a photograph with good contrast representing a similar field of view realistic to the natural view experienced by the human eye, with the viewing distance of the montage and the distance of the viewpoint from the turbine stated (zoom lenses must not be used). Positions of the viewpoints should be clearly shown on a location map with grid references.

When to consult SNH on landscape issues:

- Any wind turbine proposal in Zone 3 (highest natural heritage sensitivity) in strategic locational guidance (higher area on Denny Muir, the plateau south of Bonnybridge, shoreline near Grangemouth / Bo'ness and small area of the Avon Valley)
- Turbines of over 50m to tip

Where turbines will create significant adverse effects or where there are many applications for single turbines in the same locality, comments from SNH can also be requested.

APPENDIX 7: BIBLIOGRAPHY

Scottish Planning Policy:
http://www.scotland.gov.uk/Publications/2010/02/03132605/0

SG Planning Advice: *Process for Preparing Spatial Frameworks for Windfarms:*
http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/renewables/spatialframework

SG Planning Advice: *Onshore Wind* http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/renewables/Onshore

MacRoberts LLP and Enviros Consulting Ltd. (2008 – 2009); *SPP6 Supplementary Planning Guidance for Wind Farms;* www.spgadvice.co.uk; including *Landscape and Visual Good Practice Guidance;*
http://www.spgadvice.co.uk/docs/Landscape%20and%20Visual_Good%20Practice%20Guidance_141008.pdf

Scottish Natural Heritage (2001); *Guidelines on the Environmental Impacts of Wind Farms and Small Scale Hydro-electric Schemes;*
http://www.snh.org.uk/pdfs/publications/heritagemanagement/Guidelines%20Windfarms%20Hydroelectric%20Schemes.pdf

Scottish Natural Heritage (2002); *Strategic Locational Guidance for Onshore Wind Farms In Respect of the Natural Environment;* Policy Statement 02/02*;*
http://www.snh.gov.uk/docs/A247182.pdf

Scottish Natural Heritage (2005); *Guidance: Cumulative Effect of Wind Farms*;
www.snh.org.uk/pdfs/strategy/cumulativeeffectsonwindfarms.pdf

Scottish Natural Heritage (2006); *Visual Representation of Wind Farms – Good Practice Guidance;* http://www.snh.gov.uk/docs/A305436.pdf

Scottish Natural Heritage (2009); *Siting and Designing Windfarms in the Landscape;* http://www.snh.gov.uk/docs/A317537.pdf

Scottish Natural Heritage (2010); *Good Practice During WIndfarm Construction;*
http://www.snh.org.uk/pdfs/strategy/renewables/Good%20practice%20during%20windfarm%20construction.pdf

Scottish Natural Heritage (2012); *Assessing the impact of small-scale wind energy proposals on the natural heritage (2012)*
http://www.snh.gov.uk/docs/A669283.pdf

Scottish Natural Heritage (2012); *Bats - Guidance on potential impacts, survey requirements and further information on possible mitigation techniques, relating to wind energy developments.* http://www.snh.gov.uk/about-scotlands-nature/wildlife-and-you/bats/advice/

Scottish Natural Heritage (2012); *Assessing Connectivity with Special Protection Areas (SPAs)* http://www.snh.gov.uk/docs/A675474.pdf

Scottish Government: *Calculating Potential Carbon Losses & Savings from Wind Farms on Scottish Peatlands;* http://www.scotland.gov.uk/Resource/Doc/917/0121469.pdf

Historic Scotland: Guidance note on Setting www.historic-scotland.gov.uk/setting-2.pdf

Historic Scotland: Guidance note on Battlefields www.historic-scotland.gov.uk/managingchangebattlefields.pdf

RSPB Onshore Wind energy advice: http://www.rspb.org.uk/ourwork/policy/windfarms/index.aspx

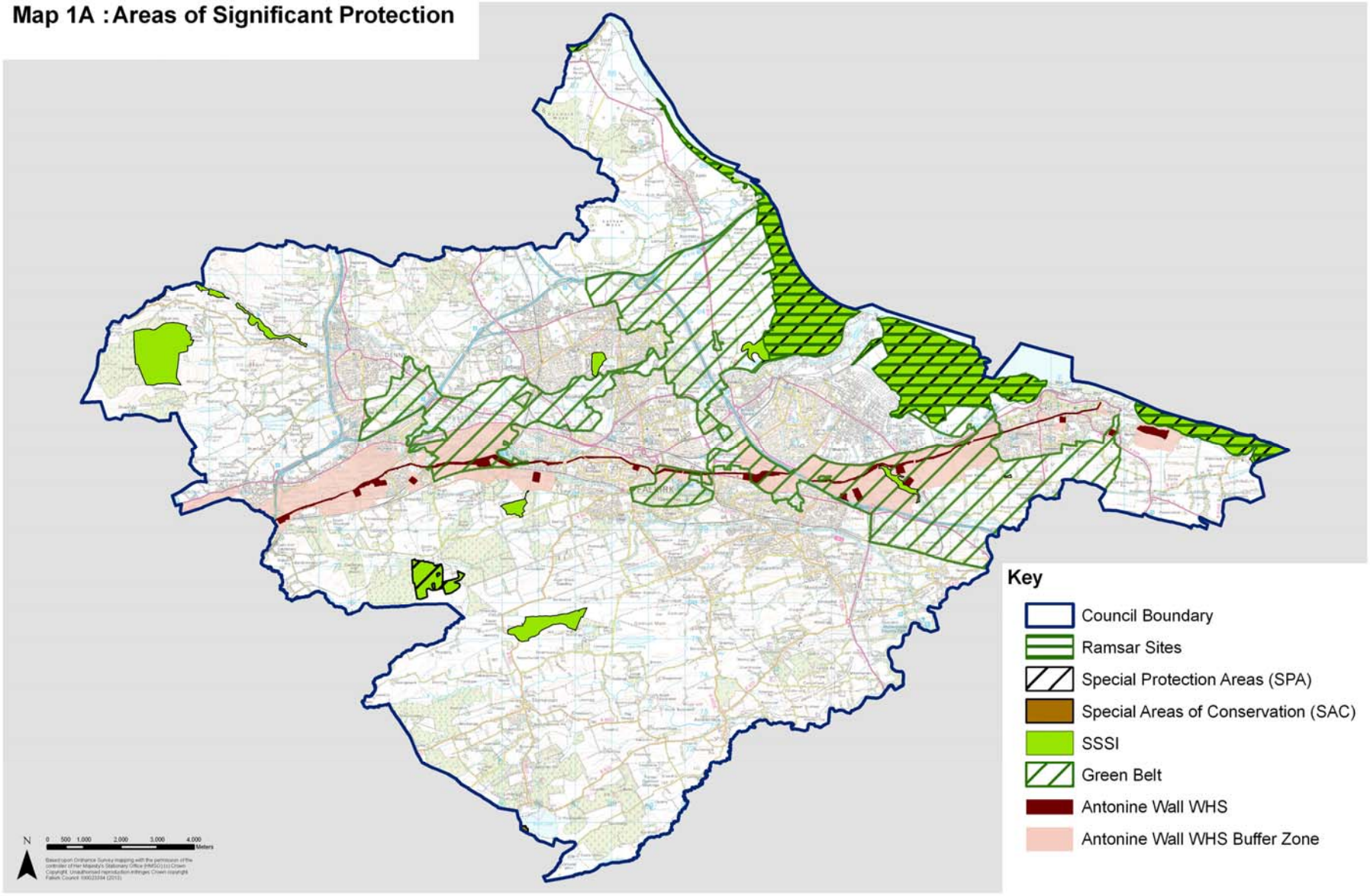
NATs Pre-planning assessment: http://www.nats.co.uk/nats-services/issues/windfarms/pre-planning-assessment-service/

DECC Aviation Safeguarding Maps: https://restats.decc.gov.uk/cms/aviation-safeguarding-maps/

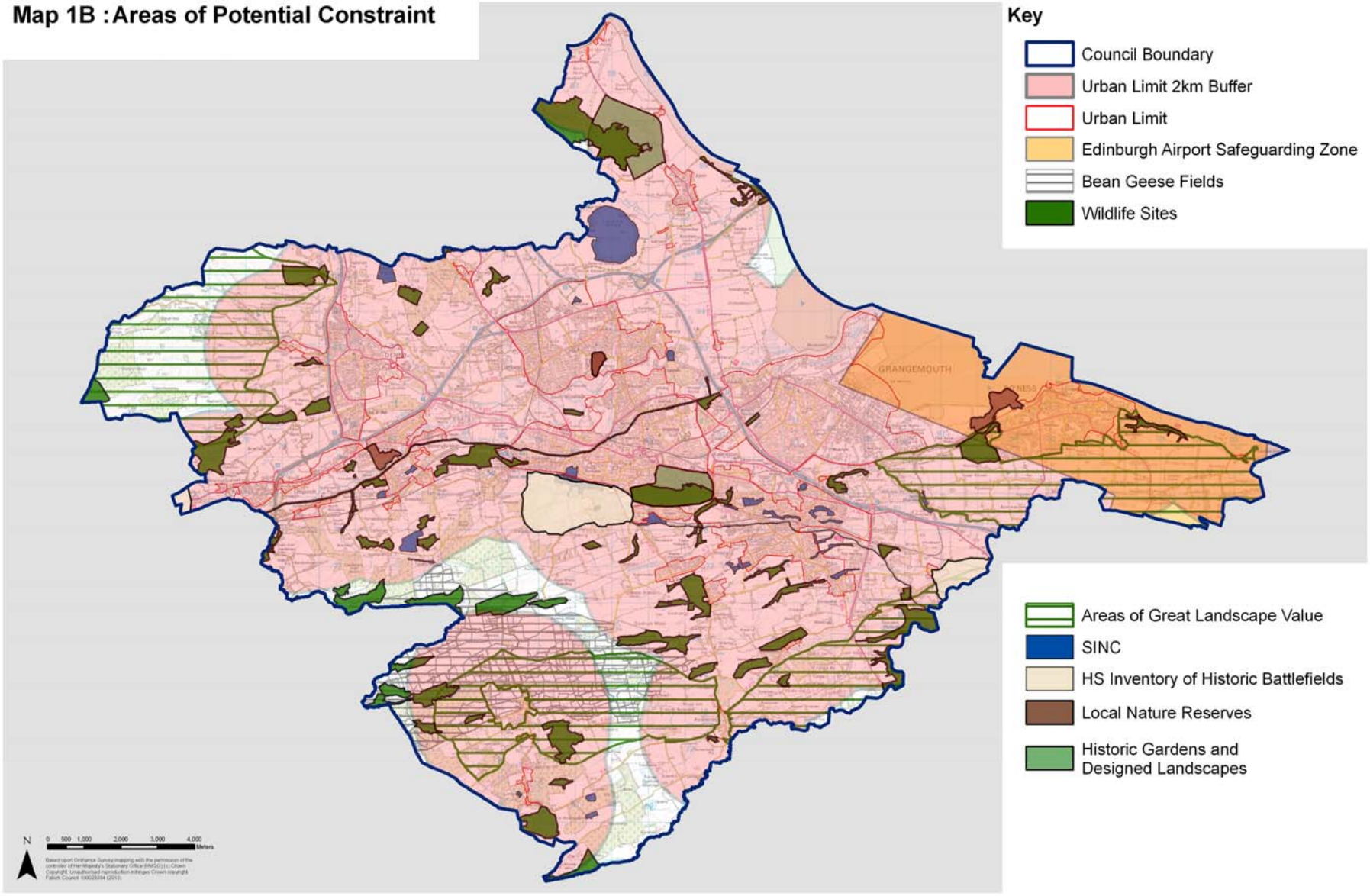
Civil Aviation Authority Pre-planning guidance: http://www.caa.co.uk/docs/1959/20101217CAAAdvicePrePlanning.pdf

Update of UK Shadow Flicker Evidence Base (March 2011): http://www.decc.gov.uk/en/content/cms/meeting_energy/wind/onshore/comms_planning/shadow_flicker/shadow_flicker.aspx

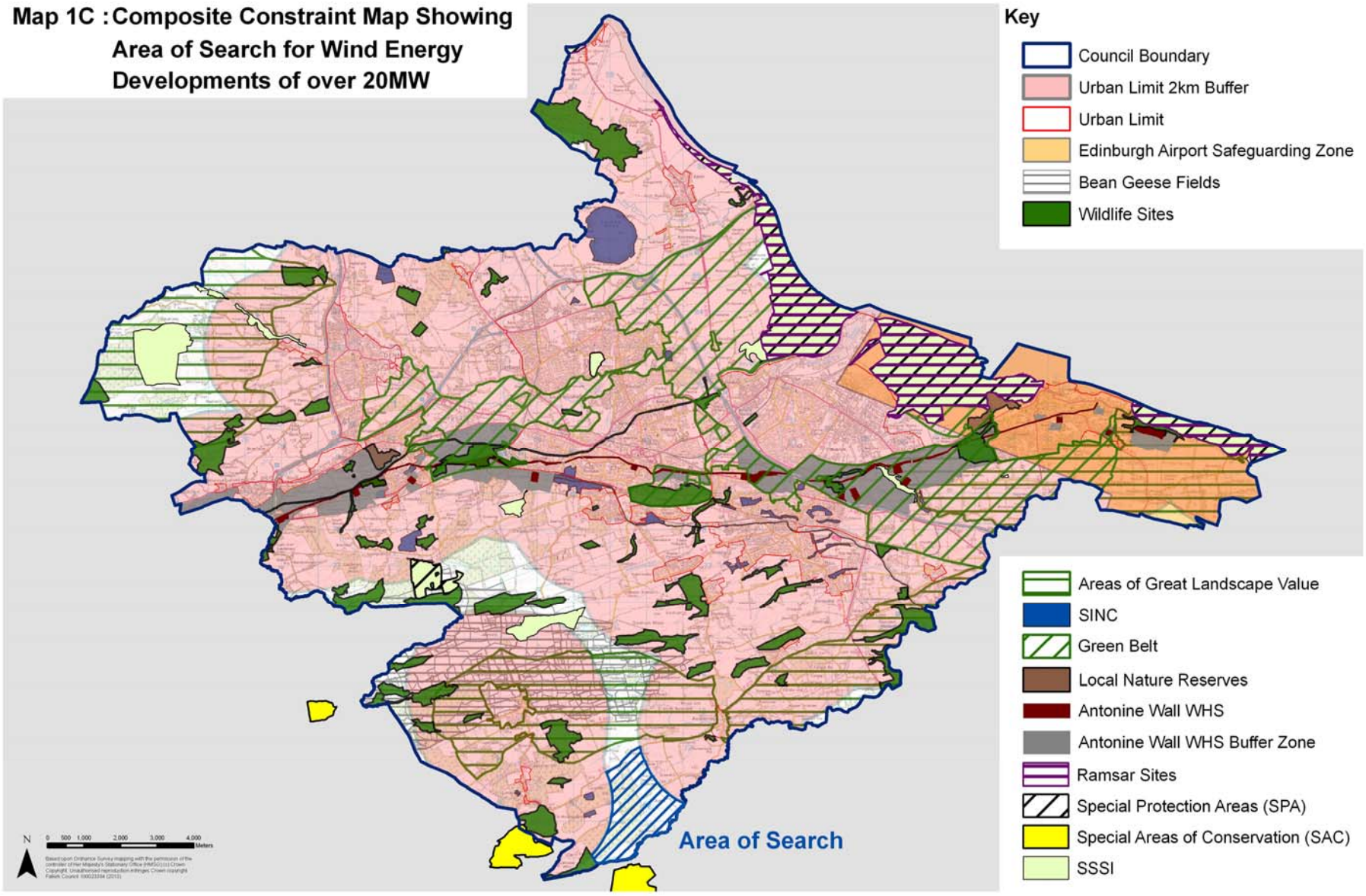
Map 1A : Areas of Significant Protection



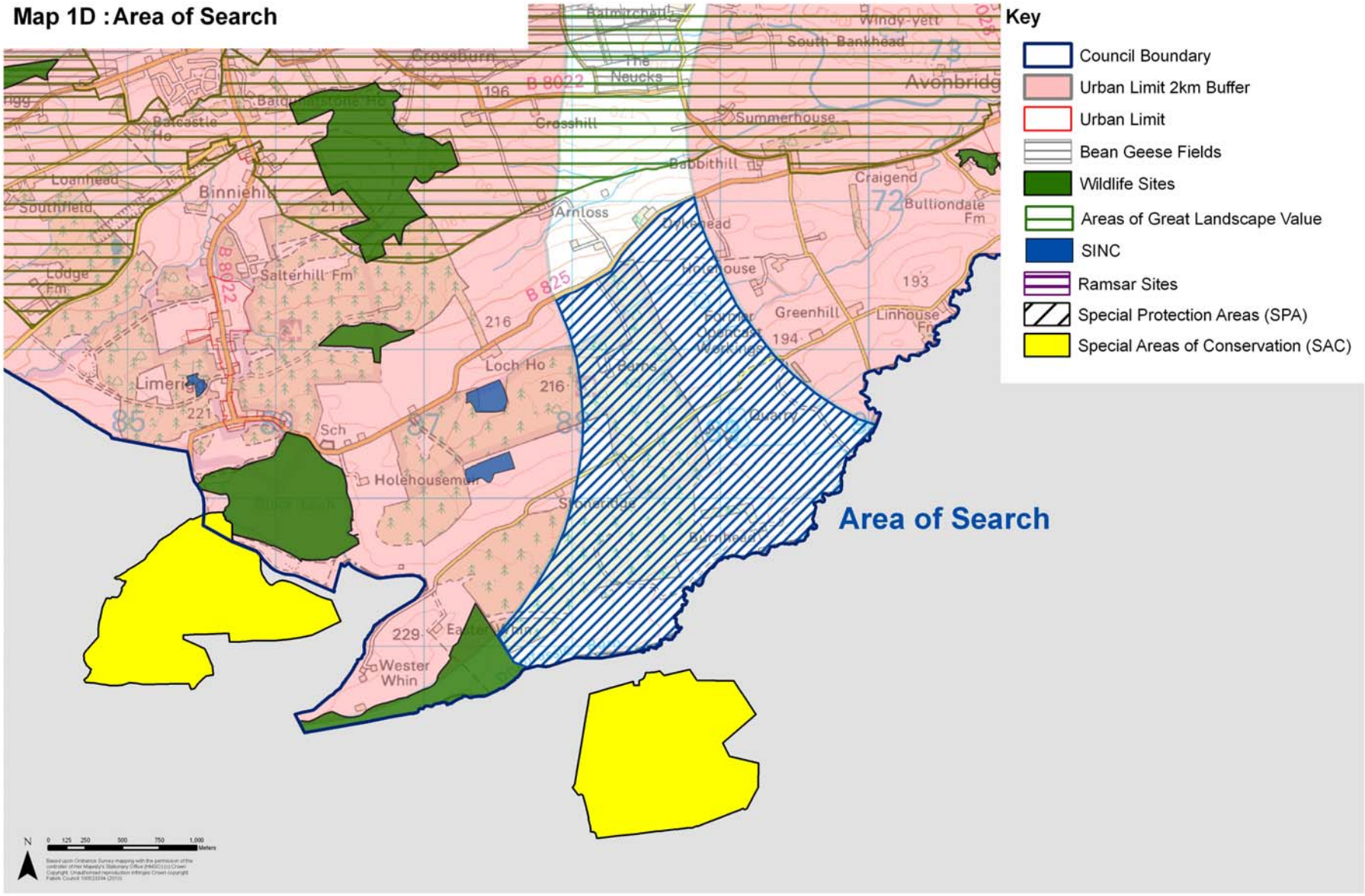
Map 1B : Areas of Potential Constraint



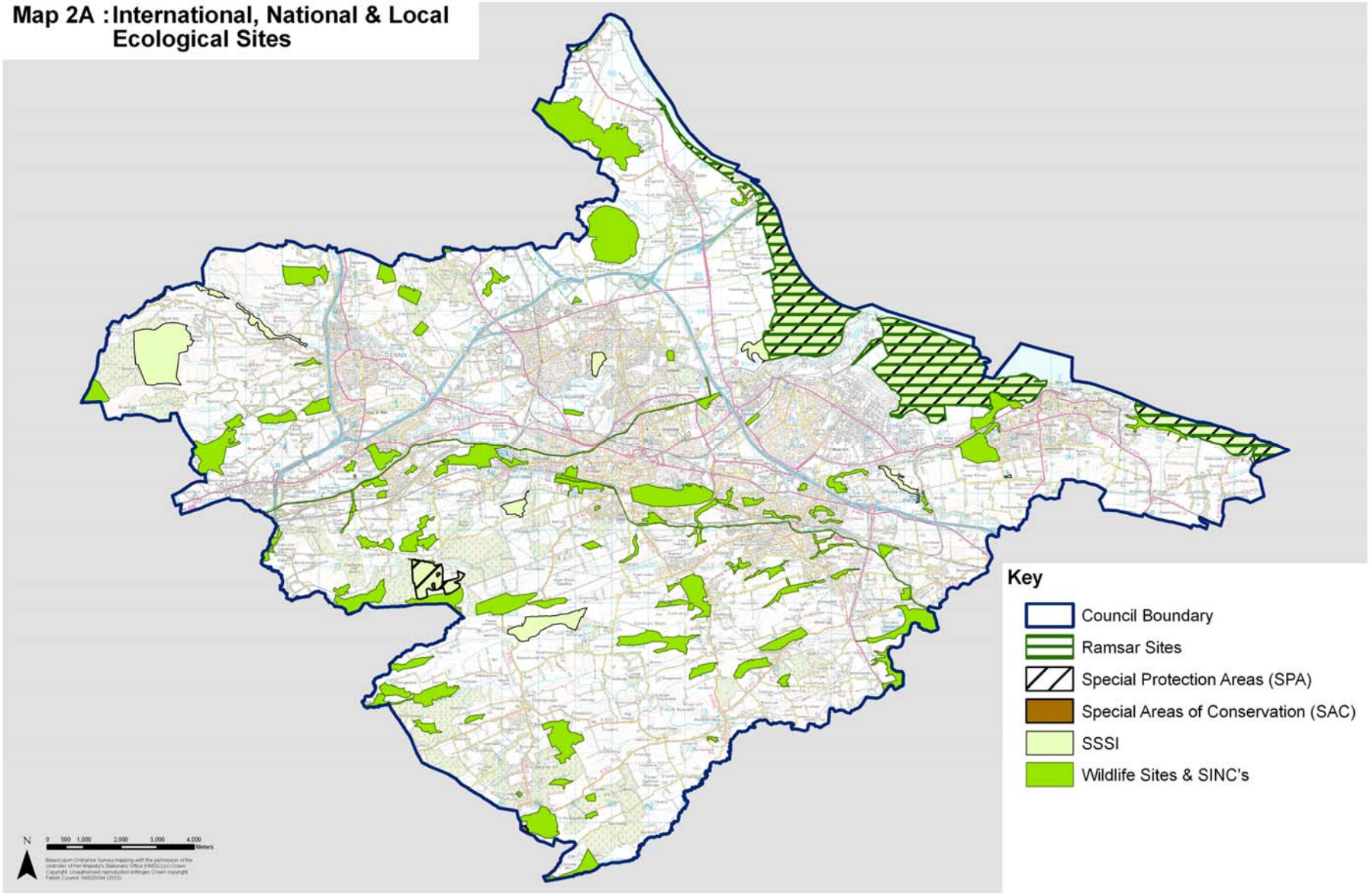
Map 1C : Composite Constraint Map Showing Area of Search for Wind Energy Developments of over 20MW



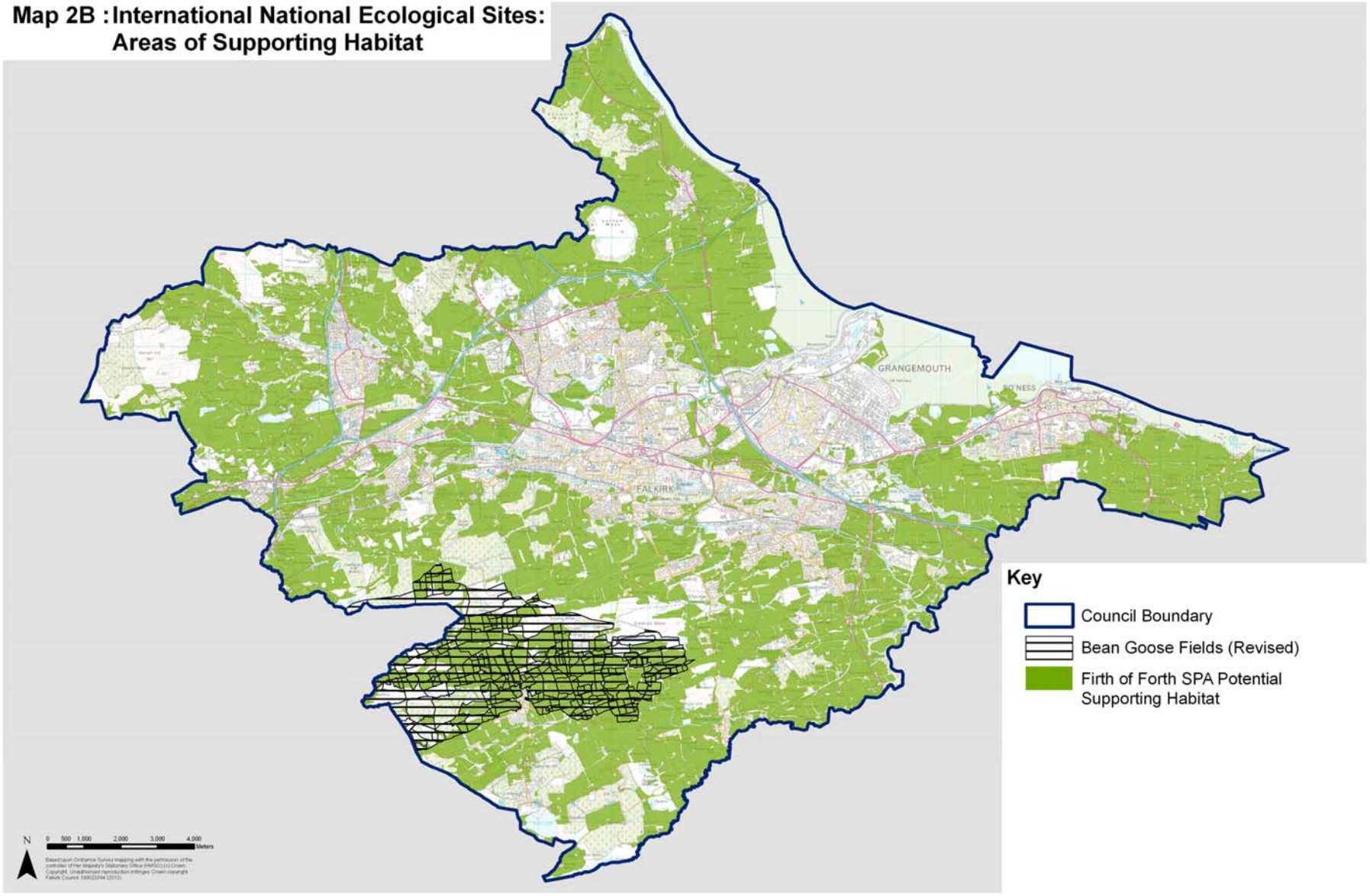
Map 1D : Area of Search



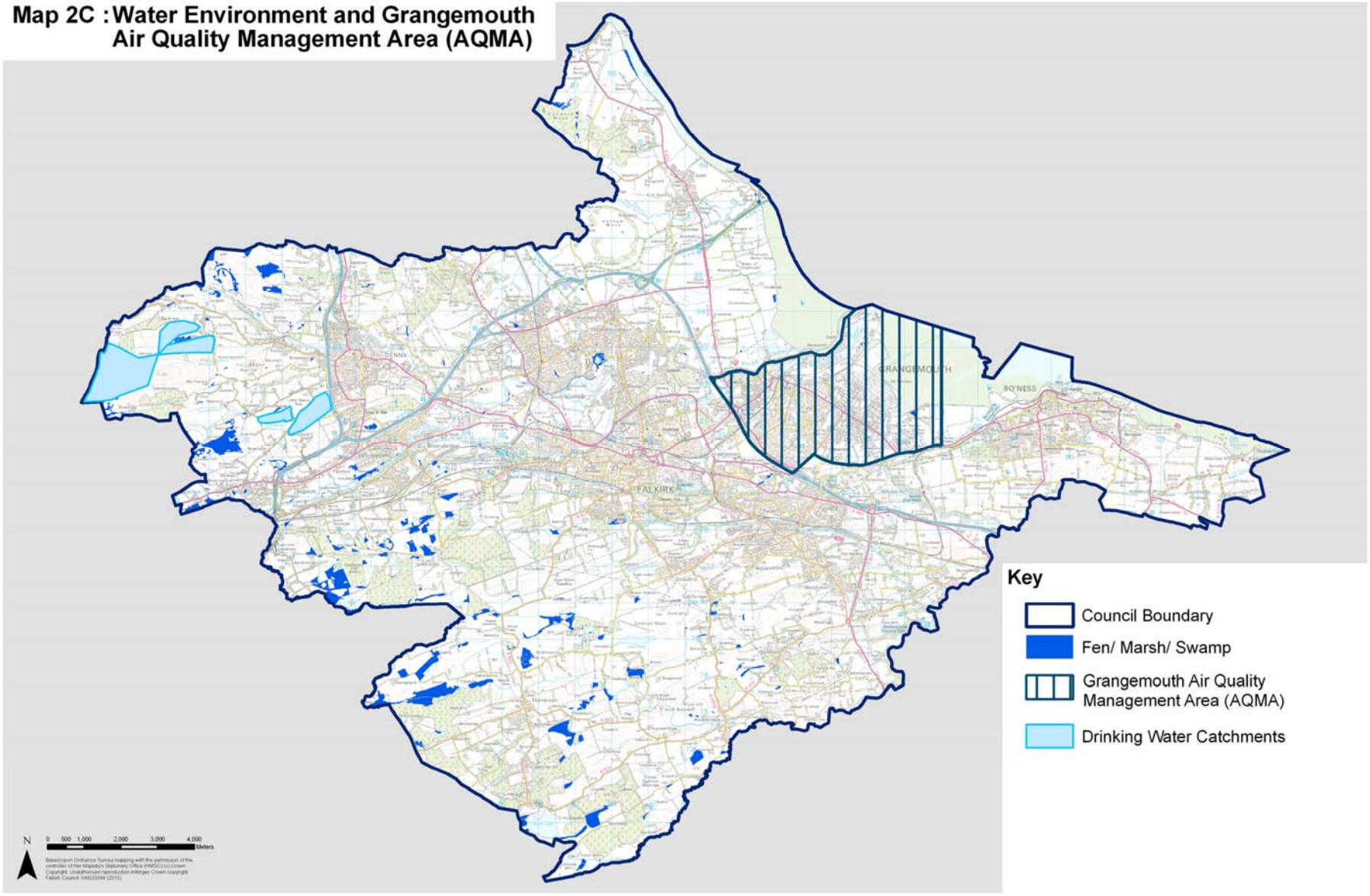
Map 2A : International, National & Local Ecological Sites



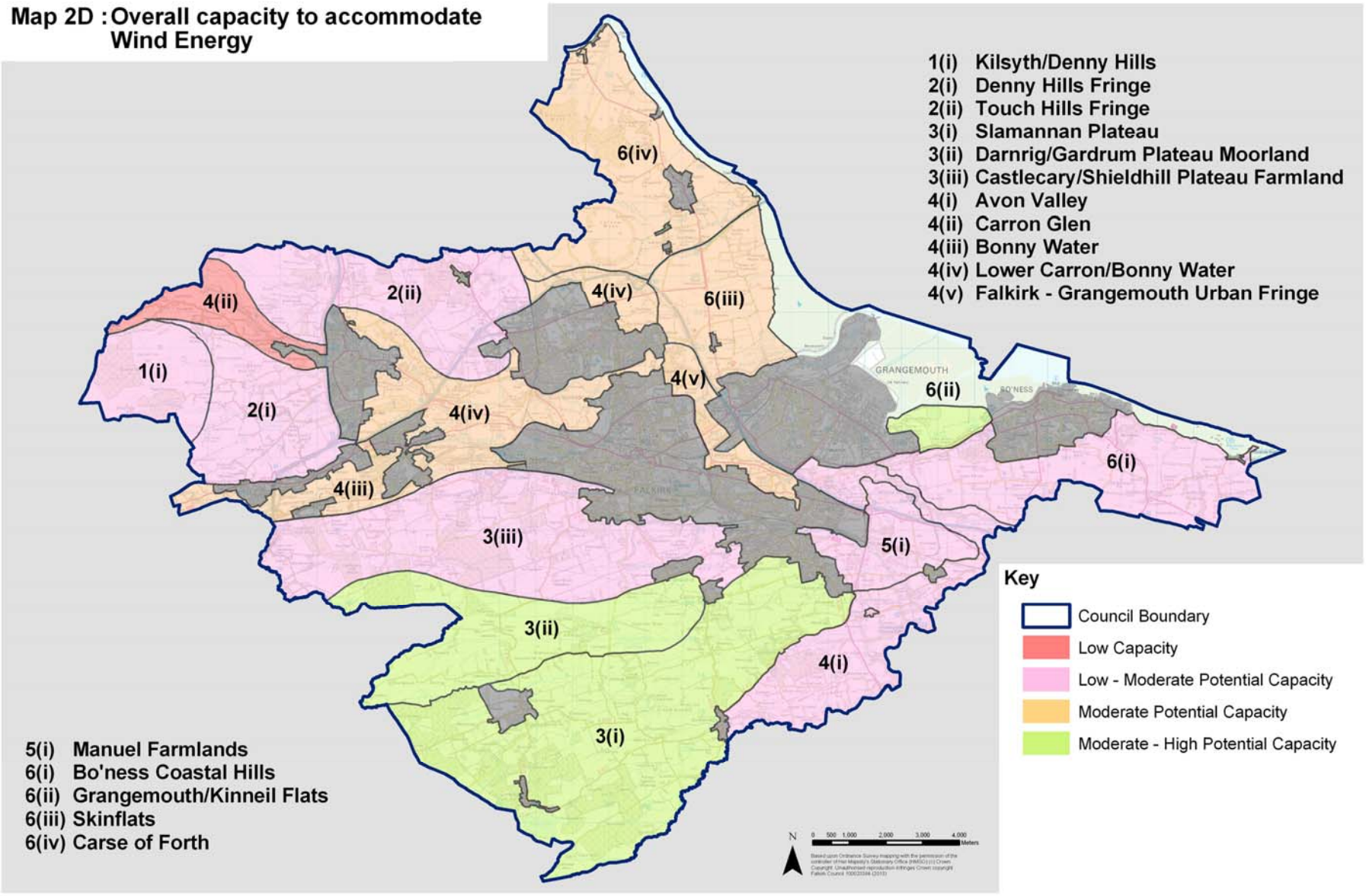
Map 2B : International National Ecological Sites: Areas of Supporting Habitat



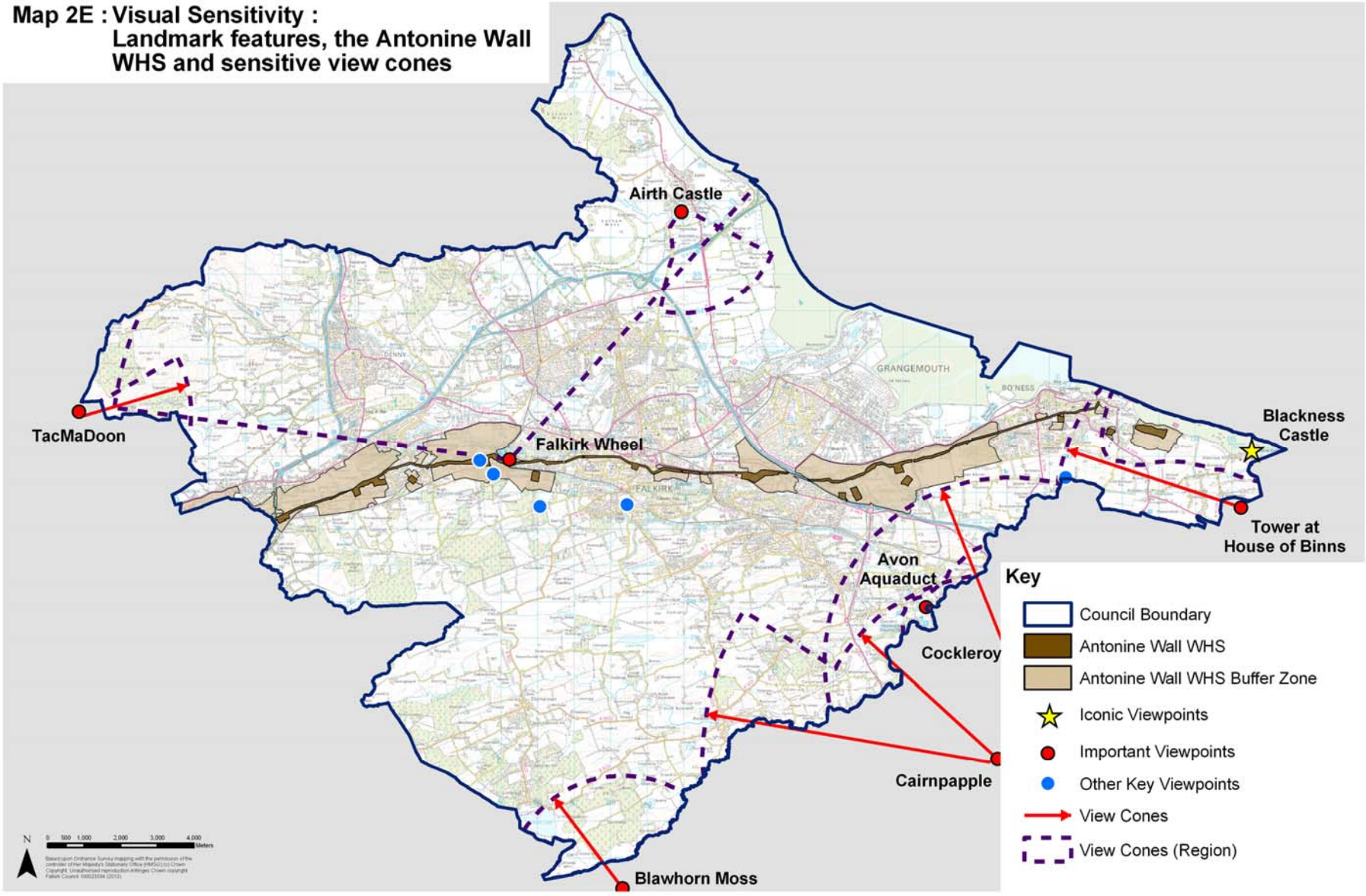
Map 2C : Water Environment and Grangemouth Air Quality Management Area (AQMA)



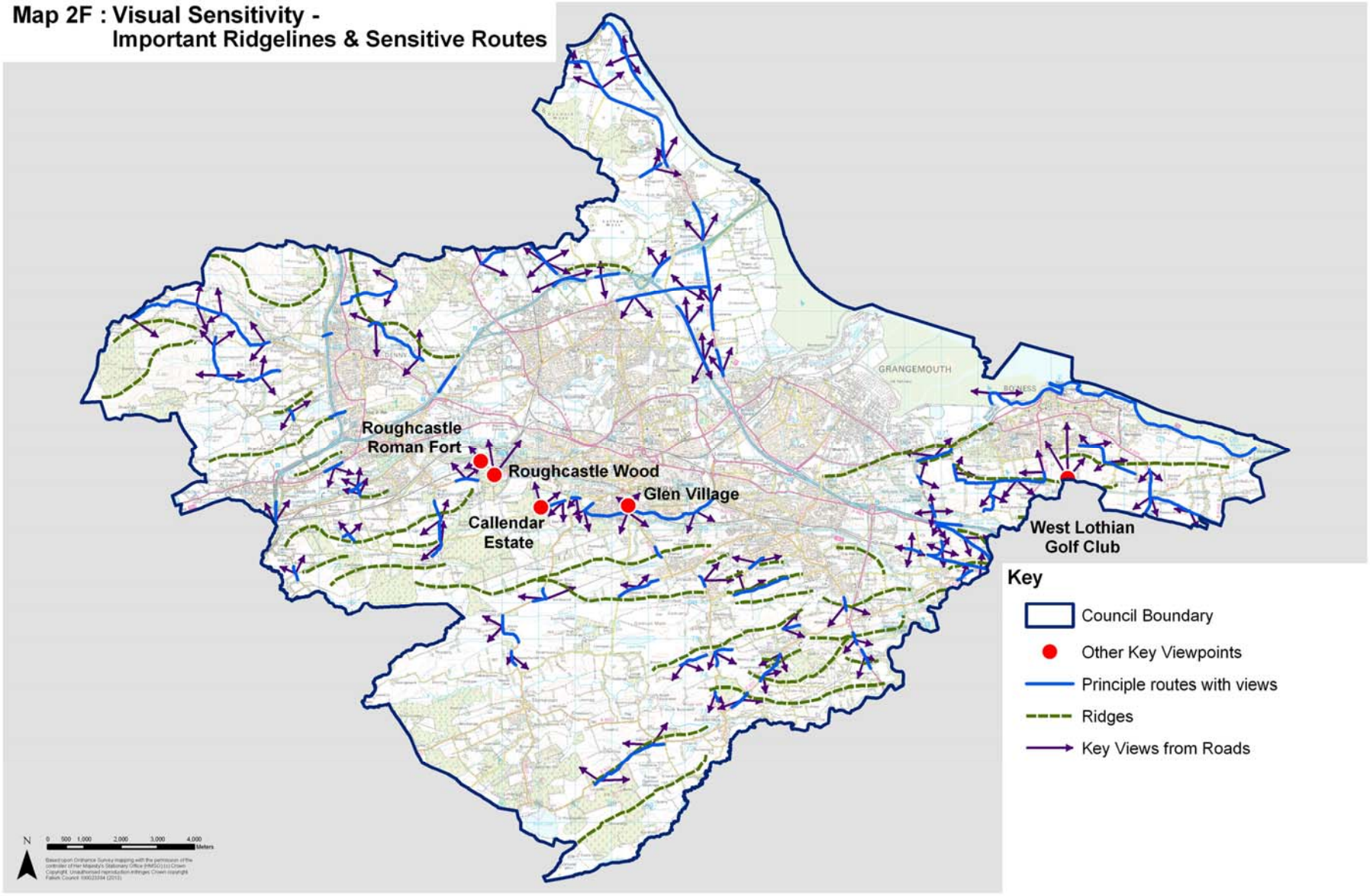
Map 2D : Overall capacity to accommodate Wind Energy



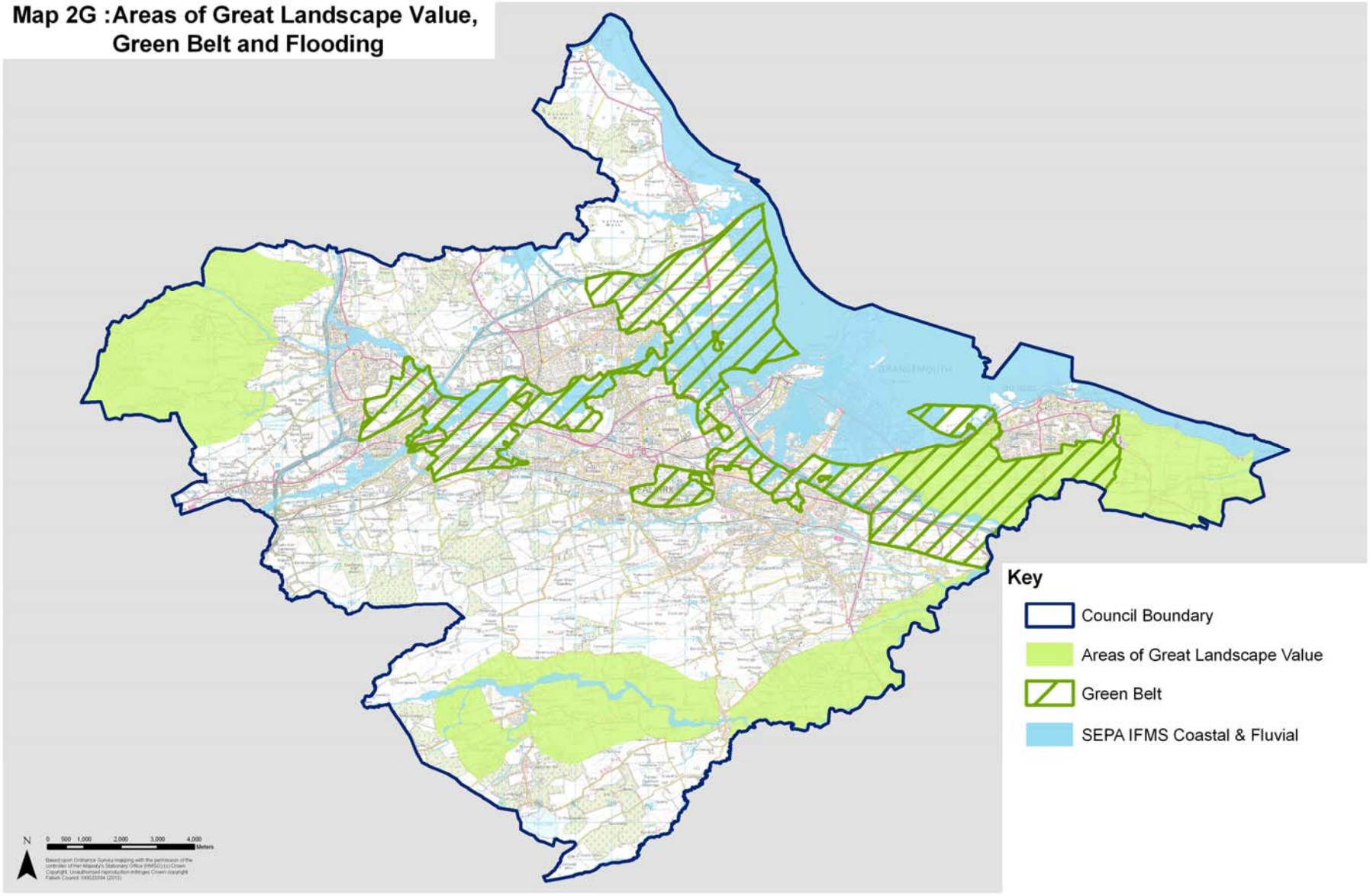
Map 2E : Visual Sensitivity :
Landmark features, the Antonine Wall WHS and sensitive view cones



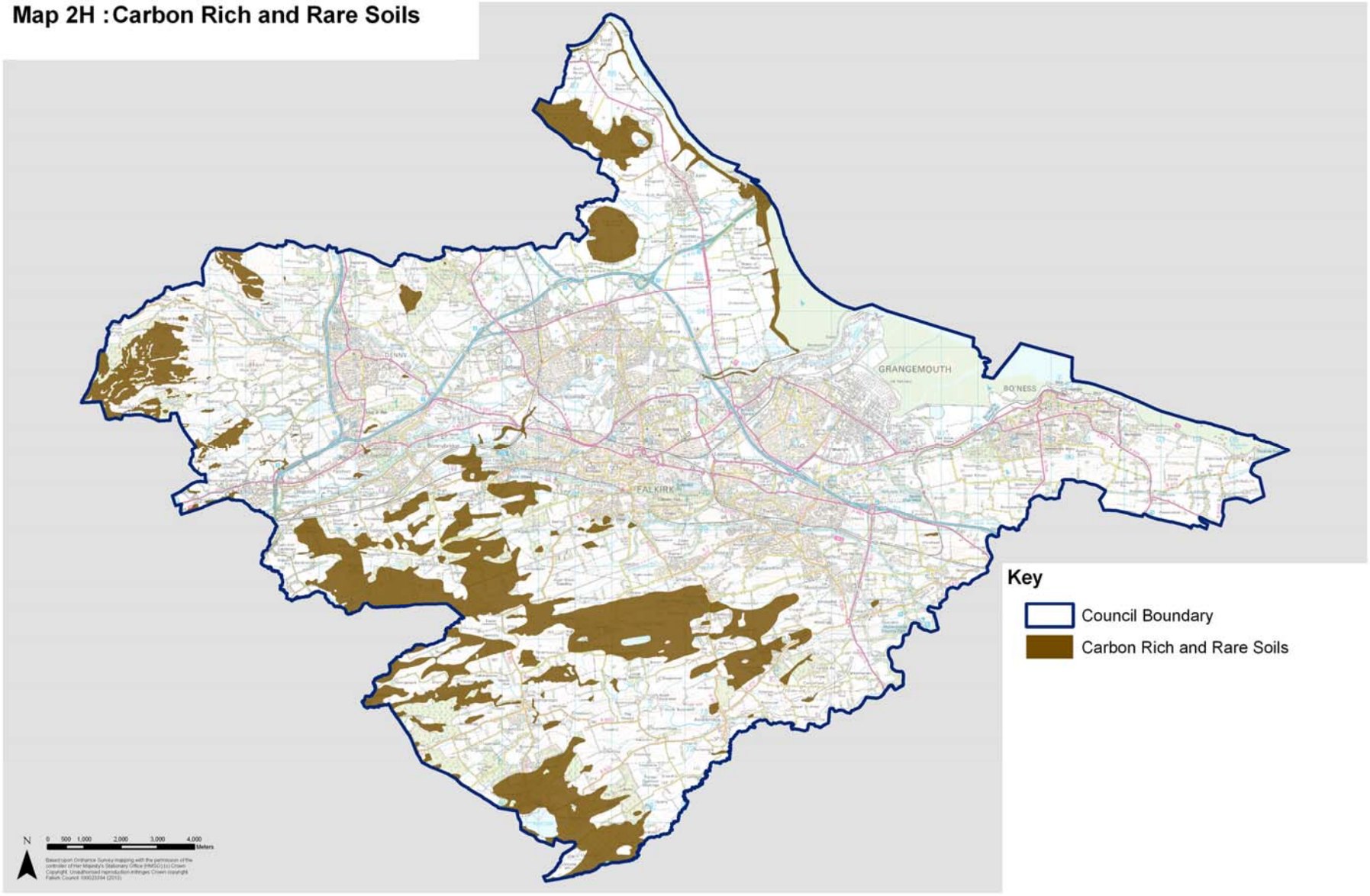
Map 2F : Visual Sensitivity - Important Ridgelines & Sensitive Routes



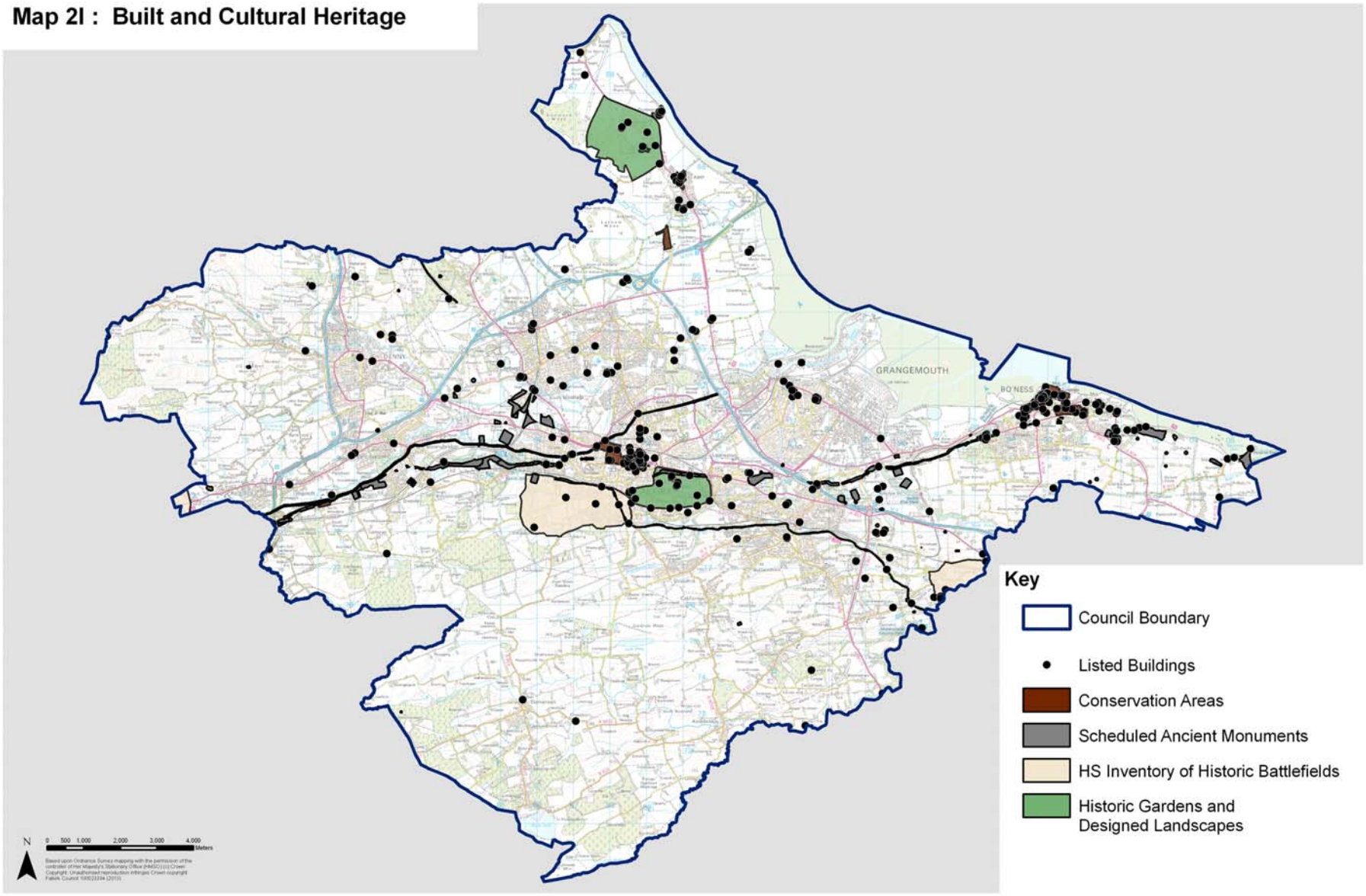
Map 2G :Areas of Great Landscape Value, Green Belt and Flooding



Map 2H : Carbon Rich and Rare Soils



Map 2l : Built and Cultural Heritage



Map 2J : Aviation - Consultation Zones and Edinburgh Airport Safeguarding Zone