

Draft Wind Turbines Supplementary Planning Document and Emerging Policy

Wind Turbines Planning Applications
Supporting Documents Paper

January 2012



www.milton-keynes.gov.uk/wind-turbines

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Statement of Matters

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Wind Turbines Statement of Matters

Title of Document

Milton Keynes Council Draft Supplementary Planning Document and Emerging Policy: Wind Turbines Planning Applications (January 2012)

Subject matter and geographical Cover and draft SPD

The wind turbines document provides guidance for large scale wind turbine planning applications. It seeks to increase protection of residential amenity, as well as the safety of pedestrians and horse riders.

The Emerging Policy within the draft SPD introduces a sliding scale of separation distances between residential properties and wind turbines. It also introduces separation distances between bridleways and wind turbines, and footpaths and wind turbines.

Period for representations

The consultation runs for an eight week period, running from Thursday 2 February 2012 to 5pm Wednesday 28 March 2012. Any person may make representations on the Council's proposals for the SPD within this consultation period.

How to make representations

Online: <http://miltonkeynes-consult.limehouse.co.uk/portal>

Email: development.plans@milton-keynes.gov.uk

Post: Development Plans
Milton Keynes Council
Civic Office
1 Saxon Gate East
Central Milton Keynes
MK9 3EJ

Further details of consultation are available at www.milton-keynes.gov.uk/wind-turbines

Please note that any representations may be accompanied by a request to be notified, at a specified address, of the adoption of the SPD.

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Consultation Statement

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Wind Turbines Consultation Statement

Prepared in accordance with Regulation 17(1)(b) of The Town and Country Planning (Local Development)(England) Regulations 2004 (as amended)

Background

This consultation statement sets out the process for the preparation and formal consultation of the draft SPD and emerging policy. It also sets out how the Council will comply with the Statement of Community Involvement (SCI) and the requirements of Regulation 17 of the Town and Country Planning (Local Development) (England) Regulations 2004 (as amended).

Preparation of the Draft SPD and Emerging Policy

The initial request for an update of wind turbines planning policy came from Parish Councillors. A report was taken to Development Control Committee on 16 June 2011 which recommended that it was not necessary to produce any additional guidance. The item was deferred at the request of the Members of the Committee, so that the report could be sent to Parish Councillors for information. The report was sent to all Parish Councils on 21 June 2011; they were given until 8 August 2011 to respond with any comments. Comments received were reported to the Cabinet Member, along with officer responses.

A further report was taken to the Development Control Committee on 13 October 2011 (including details of the comments received, together with the Officer responses). It recommended that, due to the government's intention to replace all National Planning Policy Statements and Guidance notes (PPSs and PPGs) with the National Planning Policy Framework, an SPD be produced to prevent the loss of the relevant information contained within the PPSs/PPGs and their associated guidance documents. The Development Control Committee resolved to produce an SPD based on a model SPD submitted by a Castlethorpe Parish Councillor and that it be taken to the next available Cabinet meeting (December 2011).

Evidence was gathered and an SPD and interim policy were produced for a meeting of the Cabinet on 20 December 2011. The cabinet report recommended that a separation distance of 800m from settlements be carried forward into the interim policy within the SPD. However, the Council resolved to carry forward a separation distance of 1000m from all dwellings into the interim policy (together with some changes to the document).

Following the December Cabinet meeting, the decision was called in by a group of 20 residents. This resulted in the item being taken back to a further meeting of the Cabinet on 17 January 2012. Further representations were received from a Castlethorpe Parish Councillor prior to the January meeting. The policy within the SPD was reconsidered and revised as a result of these representations. It is this version that has been issued for consultation as a result of the resolution made by Cabinet in January 2012.

Strategic Environmental Assessment/ Sustainability Appraisal

A Screening Report was produced and sent to the statutory bodies to assess the requirement for a Strategic Environmental Assessment of the draft SPD. Assessment showed that SEA was required, so a Scoping Report was produced and sent to the statutory bodies. Comments received at the scoping stage were incorporated and the Scoping Report amended. Following the consultation, it was decided to undertake a full Sustainability Appraisal of the SPD. A full Sustainability Appraisal, incorporating the requirements for

Strategic Environmental Assessment, was carried out and made available at the meeting of the Cabinet on 20 December 2011.

Regulation 17 Consultation

The draft SPD will be subject to the following consultation arrangements:

- a) The Draft SPD and supporting documents paper (Evidence Paper, Sustainability Appraisal, SPD Matters and Consultation Statement) are available for inspection:
 - at Milton Keynes Council, Civic Office, 1 Saxon Gate East, Central Milton Keynes, MK9 3EJ
 - at all libraries in the Borough. Library locations and opening hours are available from:
http://www.miltonkeynes.gov.uk/library_services/DisplayArticle.asp?ID=21971
 - on the council's website: www.milton-keynes.gov.uk/wind-turbines
and: <http://miltonkeynes-consult.limehouse.co.uk/portal>
- b) An advertisement has been placed in the local newspaper MKNews, stating where a copy of the documents can be obtained, and when and where the documents can be inspected.
- c) A covering letter or email has been sent to consultees on the Limehouse consultation database, notifying them of the publication of the draft SPD. The following groups have been contacted directly:
 - Specific Consultation Bodies
 - General Consultation Bodies with an interest in the draft SPD
- d) The consultation runs from Thursday 2 February until Wednesday 28 March 2012

All comments must be received no later than 5pm Wednesday 28 March 2012

Next Steps

Following consultation, all comments will be reported to the Council for consideration and the SPD will be amended accordingly, prior to adoption. This Consultation Statement will be updated with a summary of responses.

Evidence Paper

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1. Summary of planning appeals

The following list of appeals all have some reference to noise in the Inspector's report. One consistent issue raised by Inspectors is the ETSU R97 'The Assessment and Rating of Noise from Wind Farms' advice, although the separation distances vary from case to case. Copies of the reports are available from the Development Plans team.

Appeals A, B and C APP/Y0435/A/10/2140401, APP/K0235/A/11/2149434 and
APP/H2835/A/11/2149437 November 2011
Land between London Road and Harrold Road, Bozeat

Appeal Ref: APP/P2114/A/10/2125561 August 2011
Cheverton Farm, Land at Cheverton Down, Cheverton Shute, Shorwell,
Newport, Isle of Wight

Appeal Ref: APP/X2410/A/10/2134009 March 2011
Land adjacent to Wanlip Sewage Treatment Works, Wanlip, Leicestershire

Appeal ref: App/D2510/A/10/2121089 December 2010
Land at Chase Farm, Baumber, Horncastle Lincolnshire

Appeal Ref: APP/U2615/A/10/2131105 November 2010
Land to the east and west of the Ormesby Road, adjacent to the disused
Hemsby Meteorological Station between the villages of Ormesby St
Margaret and Hemsby Norfolk

Appeal Ref: APP/Y2810/A/10/2120332 July 2010
Land near Glebe Farm, Yelvertoft, Northamptonshire

Appeal Ref: APP/Y2430/A/09/2108595 July 2010
Site at Palmers Hollow (Field No. 2700) Main Street, Normanton,
Bottesford, Leics

Appeal Ref: APP/C3105/A/09/2116152 July 2010
Willow Bank Farm, Fritwell Road, Fewcott, Bicester OX27 7NZ

Appeals A and B: APP/R1038/A/09/2107667 and APP/P1045/A/09/2108037
April 2010
Land belonging to Rushley Lodge Farm, off Wirestone Lane, Middle
Moor/Matlock Moor

Appeal Ref: APP/J1915/A/09/2104406 March 2010
Land to the east of Walkern Road and north of High Elms Lane, Benington,
Hertfordshire

Appeal Ref: APP/X1545/A/06/2023805 January 2010
Hockley Farm, Hockley Lane, Bradwell-on-Sea, Essex CM0 7PZ
10 turbines 121 m high

Appeal Ref: APP/D0840/A/09/2103026 Carland Cross Wind Farm, 1.5 km south of St Newlyn East, TR8 5AY	January 2010
Appeal Ref: APP/C1625/A/09/2116088 Standle Farm, Stinchcombe, Dursley, Gloucestershire	January 2010
Appeal Ref: APP/X1118/A/08/2083682 Land at Paul's Moor, Wester Bullaford, West Moor, north of Knowstone, South Molton EX36 4QH.	January 2010
Appeal Ref: APP/L2630/A/08/2084443 Land around Busseys Loke, Hempnall, Norwich	December 2009
Appeal Ref: APP/E2001/A/09/2101851 Land south of West Linton Farm, Brow Lane, Balkholme, East Riding of Yorkshire	December 2009
Appeal A: APP/P2935/A/08/2078347 Land at Barmoor, between Ford and Lowick Berwick on Tweed Appeal B: APP/P2935/A/08/2079520 Moorsyde wind farm, north of Felkington and south of Shoresdean Appeal C: APP/P2935/A/08/2077474 Land at Toft Hill to the south west of Grindon	October 2009
Appeal Ref: APP/M0933/A/08/2090274 Land to the east of Crosslands Farm, Old Hutton, Kendal, Cumbria	July 2009
Appeal Ref: APP/E2001/A/05/2088796 Land south, north and north east of Homer House, Aldbrough Road, Withernwick, East Riding of Yorkshire	April 2009
Appeal Ref: APP/L0635/A/07/2047477 Aston Grange Farm, Aston, Runcorn, Cheshire WA7 4DG	November 2008
Appeal Ref: APP/V3310/A/06/2031158 Land at Inner Farm, Edithmead, Burnham-on-Sea, Somerset	January 2008
GDBC/003/00024C LI X1118 Application by Devon Wind Power Limited for Consent to Construct and Operate a 66MW Wind Turbine Generating Station at Fullabrook Down in North Devon (Electricity and Planning Acts)	May 2007
Appeal Ref: APP/Q1153/A/08/2017162 Agricultural land to the south east of North Tawton and South West of Bow	March 2007

No.	Date	PINS reference	Location	Turbines	Distance from homes	Reasons (in relation to noise issue)
1	November 2011	APP/Y0435/A/10/2140401, APP/K0235/A/11/2149434 and APP/H2835/A/11/2149437	Land between London Road and Harrold Road, Bozeat	12	677 m	There is no challenge to the proposal on noise grounds from the Councils. The noise assessment has been carried out in accordance with ETSU-R-97 requirements. BLOT has registered concerns over the appropriateness of the noise modelling and the likelihood of Excessive Amplitude Modulation. I note, however, that these concerns could be addressed by the imposition of suitable planning conditions.
2	August 2011	APP/P2114/A/10/2125561	Cheverton Farm, Land at Cheverton Down, Cheverton Shute, Shorwell, Newport, Isle of Wight	3	900 m	Given the distance to the nearest dwellings, along with the local topography, I do not consider that there are any special circumstances or factors which would apply here to indicate that both construction and operational noise from the proposed wind farm could not be adequately controlled by the conditions suggested to the Inquiry.
3	March 2011	APP/X2410/A/10/2134009	Land adjacent to Wanlip Sewage Treatment Works, Wanlip, Leicestershire	1	609 m	The noise assessment indicates that the limits could be comfortably met, but the appellant has indicated that in any event no objection would be raised to an appropriately worded condition or conditions the purpose of which would be to ensure compliance.
4	December	APP/D2510/A/10/2121089	Land at Chase Farm,	8	698 m	As to the totality of noise considerations there

	2010		Baumber, Horncastle Lincolnshire			is no justifiable basis to conclude that this is a factor to be weighed against the project.
5	November 2010	APP/U2615/A/10/2131105	Land to the east and west of the Ormesby Road, adjacent to the disused Hemsby Meteorological Station between the villages of Ormesby St Margaret and Hemsby Norfolk	4	?	The Companion Guide to PPS22 (Technical Annex 8 para 45) the Government's view is quite simply that there is no evidence that ground transmitted low frequency noise from turbines is at a sufficient level to be harmful to human health. This view is restated in Revised Draft National Policy Statement for Renewable Energy Infrastructure (EN-3) which was published by the Government for consultation in the Autumn of 2010.
6	July 2010	APP/Y2430/A/09/2108595	Main Street, Normanton, Bottesford, Leics	8	725 m	I conclude that the proposed development would satisfy the requirements set out in ETSU-R-97 and therefore conform to the guidance in PPS22. The suggested condition, which has the agreement of the appellant and Council provides a means for assessing any AM together with a means of mitigating the problem, in the event that AM might occur were I to allow this appeal.
7	July 2010	APP/Y2810/A/10/2120332	Land near Glebe Farm, Yelvertoft, Northamptonshire	8	500 m (but M1 motorway effect)	I accept that ETSU-R-97 is now of some age and predated the development of the larger turbines which are now being constructed, but the Government has decided that it should remain the standard that should be applied.

8	July 2010	APP/C3105/A/09/2116152	Willow Bank Farm, Fritwell Road, Fewcott, Bicester	4	?	I am content that the proposed noise limits, enforced by condition, would provide adequate protection for local residents against adverse noise effects that the turbines might otherwise cause. The predicted noise levels would not remove that protection and the simplified form of the noise limit would ease enforcement.
9	April 2010	APP/R1038/A/09/2107667 and APP/P1045/A/09/2108037	Land belonging to Rushley Lodge Farm, off Wirestone Lane, Middle Moor/Matlock Moor	5	650 m	Living conditions would be unacceptably harmed, to varying degrees, by noise and visual impact. The ease and speed with which any breaches of the noise limits could be addressed, and the uncertainties about noise levels in the Amber Valley, are also matters that concern me.
10	March 2010	APP/J1915/A/09/2104406	Land to the east of Walkern Road and north of High Elms Lane, Benington, Hertfordshire	3	750 m	I conclude on the third issue that neighbouring residents would not suffer unacceptable disturbance from noise or shadow flicker
11	January 2010	APP/X1545/A/06/2023805	Hockley Farm, Hockley Lane, Bradwell-on-Sea, Essex	10	600 to 630m	The identified harm and associated conflict with the development plan is limited and would be here outweighed in the wider public

						interest by the benefits.
12	January 2010	APP/D0840/A/09/2103026	Carland Cross Wind Farm, 1.5 km south of St Newlyn East	10	600m	The proposed wind farm, being sited close to A30 where ambient noise levels are less susceptible to increase, where separation distances from existing dwellings are generally greater than now, and where proposed turbines on the western part of the site would all be in excess of 600m away from houses and can be operated within the requisite ETSU-R-97 derived limits has, I consider, been located and designed in accordance with this advice.
13	January 2010	APP/C1625/A/09/2116088	Standle Farm, Stinchcombe, Dursley, Gloucestershire	1 (mast)	400 m	Given the distance of the site from the nearest properties, there would be no likelihood of disturbance to local residents from any sounds arising from the movement of wind through the structure, including the guys
14	January 2010	APP/X1118/A/08/2083682	Land at Paul's Moor, Wester Bullaford, West Moor, north of Knowstone, South Molton	9	5 x the height of the turbines	ETSU seeks to define an acceptable noise environment during quiet daytime and night time periods, as compared with the existing background noise environment. Hence there is no need to set a minimum distance from property to turbine as the actual baseline noise environment will vary from site to site. The noise issue, then, boils down to whether the appellant has shown that noise generated by the development would be likely to be within, or capable of being

						constrained within, the noise guidelines in ETSU. It is my view that that has been demonstrated.
15	December 2009	APP/L2630/A/08/2084443	Land around Busseys Loke, Hempnall, Norwich	7	700 m	I am also content that noise can be adequately dealt with by planning conditions, although some adjustment of the permitted quiet day-time noise limits suggested would in my judgement be desirable to ensure increases in ambient noise levels are minimised in line with paragraph 41 of the PPS22 Companion Guide.
16	December 2009	APP/E2001/A/09/2101851	Land south of West Linton Farm, Brow Lane, Balkholme, East Riding of Yorkshire	10	600m	On the main issues I find that there would be harm to the landscape character of the area, and conflict with some parts of the development plan. However, the degree of harm is limited and in my judgement is outweighed by the urgent need to provide renewable energy and the support of policy at national, regional and sub regional level. Subject to suitable conditions I do not find that there would be unacceptable harm to the living conditions of nearby residents
17	October 2009	APP/P2935/A/08/2078347 APP/P2935/A/08/2079520 APP/P2935/A/08/2077474	Land at Barmoor, between Ford and Lowick Berwick on Tweed	6 7 7	770 m	For the Moorsyde appeal, I consider that the main considerations are the landscape and visual effects of the proposed wind farm; and the effect of noise on living conditions at nearby dwellings My concerns about visual effects and noise are, in themselves, of insufficient weight to make the wind farm

						unacceptable. But, when taken together with the major effects on the landscape generally, and on the views of the Cheviots in particular, I have reached the view that the proposed wind farm has serious detracting features.
18	July 2009	APP/M0933/A/08/2090274	Land to the east of Crosslands Farm, Old Hutton, Kendal	6	600 m	I consider that the turbines are unlikely to cause unacceptable noise at nearby dwellings. Nevertheless, I accept the need for a noise limits condition on a precautionary basis.
19	April 2009	APP/E2001/A/05/2088796	Land south, north and north east of Homer House, Aldbrough Road, Withernwick, East Riding of Yorkshire	9	?	I am satisfied that noise levels at the closest residential properties could be maintained within the limits specified in ETSU-R-97. PPS22 states that this report should be used to assess and rate noise from wind energy development.
20	November 2008	APP/L0635/A/07/2047477	Aston Grange Farm, Aston, Runcorn, Cheshire	4	?	The criteria included in ETSU-R-9722 do not require that turbines are inaudible at the nearest noise-sensitive properties; merely that they should not exceed certain limits. The noise survey carried out on behalf of the appellant demonstrates that there would be no exceedence of the relevant noise limits.
21	January 2008	APP/V3310/A/06/2031158	Land at Inner Farm, Edithmead, Burnham-on-Sea, Somerset	5	440 m	There is no clear evidence that noise from the turbines, noise-related problems or shadow flicker would cause any unacceptable harm to living conditions locally, especially if controlled by appropriate conditions.

22	May 2007	GDBC/003/00024C LI X1118	Application by Devon Wind Power Limited for Consent to Construct and Operate a 66MW Wind Turbine Generating Station at Fullabrook Down in North Devon (Electricity and Planning Acts)	22	450 m	I conclude that, with suitable mitigation (through the use of SRS or SCADA were the Vestas V90 turbine to be used), and the imposition of Condition 20 (Option 1) and the other agreed noise conditions, this development would be compliant with the <i>Recommended Good Practice on Controlling Noise from Wind Turbines</i> as contained in the Companion Guide to PPS22, with ETSU-R-97
23	March 2007	APP/Q1153/A/08/2017162	Agricultural land to the south east of North Tawton and South West of Bow	9	1 km	While I am aware that the validity of the ETSU-R-97 methodology has also been questioned by objectors, especially in the context of low frequency sound and other potential noise and health impacts, the use of this methodology was coincidentally affirmed during the course of the Inquiry in a letter dated 22 November 2006 from the Department of Communities and Local Government (DCLG).

2. Other documents

Hayes Mckenzie report on wind turbine noise

http://www.decc.gov.uk/en/content/cms/meeting_energy/wind/onshore/comms_planning/noise/noise.aspx

ETSU-R-97 The Assessment and Rating of Noise from Wind Farms

http://regmedia.co.uk/2011/08/02/etsu_r_97.pdf.

Renewable Energy UK Guidelines for onshore and offshore wind farms

<http://www.bwea.com/pdf/HSGuidelines.pdf>

Environmental Impact Assessment Regulations

<http://www.legislation.gov.uk/uksi/1999/293/contents/made>

Environmental Impact Assessment Guidance

<http://www.communities.gov.uk/publications/planningandbuilding/environmentalimpactassessment>

UK Environmental Law Association summary of recent case law

3. Documents provided to Milton Keynes Council by parish councillor

Bulletin of Science Technology and Society August 2011-12-22

www.epaw.org/documents/Interp_Evidence_re_Wind_Turbines.pdf

Dr C Hanning Sleep Disturbance-wind turbine noise

www.windvigilance.com/about-adverse-health-effects/wind-turbine-noise-sleep-and-health-by-dr-hanning

Lord Reay's members bill 2010/11

www.publications.parliament.uk/pa/ld201011/ldhansrd/text/110610-0001.htm#11061043000429

Dr A Barry Wind Turbines Noise and Health 2007

rawindfarm.com/wp-content/uploads/wtnoise_health_2007_a_barry.pdf

Dr. Nina Pierpont wind turbine syndrome 2009

www.windturbinesyndrome.com/book.html

Renewable Energy Foundation 2009

www.ref.org.uk/attachments/article/151/jc.lm.salford.data.comment.07.02.09.c.pdf

Denbrook wind farm Devon legal challenge

www.bailii.org/ew/cases/EWCA/Civ/2011/638.html

aeinews September 21st 2011

aeinews.org/archives/1440

R James Noise Con 2008

acousticecology.org/wind/winddocs/noise/kamperman%20james_08_siting%20guidelines_full.pdf

Retexo RISP

www.retexo.de/english/wind/seite5a.htm

The French Academy of Medicine

kirbymtn.blogspot.com/2006/03/french-academy-of-medicine-warns-of.html

U.K. Noise Association

<http://www.countryguardian.net/Location.pdf>

CPRE Northamptonshire

www.cprenorthants.org/documents/Misc/Windfarms-TimeToChangeDirection.pdf

(N.b.) CPRE Central office confirmed this does not change their national policy November 2011.

Bulletin of Science, Technology & Society Wind Turbine Article Abstracts

http://www.windturbinesyndrome.com/news/wp-content/uploads/2011/08/BSTSociety-8_11-Abstracts.pdf.

Article by McGrigors Energy

http://www.mcgrigors.com/e-bulletin/energy/eb_27_Sept_2010.html

The "How To" Guide To Siting Wind Turbines To Prevent Health Risks From Sound

<http://www.windaction.org/documents/17229>

The Acoustic Ecology Institute AEI Special Report: Wind Energy Noise Impacts

<http://www.acousticecology.org/srwind.html>

MAS Environmental, The Occurrence of Excess Amplitude Modulation

<http://www.nrc.me.uk/Windfarm/Misc%20Docs/MASreportturbinesatNewAlbion100104FINALa.pdf>.

Hoare Lea Acoustics presentation, Noise and Wind Turbines

<http://www.bwea.com/pdf/planningconfs/hartlepool/Bullmore.pdf>.

Letter written on behalf of illwind

<http://illwind.co.uk/Documents/Dismissed%20Wind%20Turbine%20Appeals%20-%20Summary%20Document.doc>.

10th International Congress on Noise as a Public Health Problem (ICBEN) 2011, London, UK, Adverse health effects of industrial wind turbines: a preliminary report

<http://www.wind-watch.org/documents/adverse-health-effects-of-industrial-wind-turbines-a-preliminary-report/>

A Summary of new evidence: Adverse health effects and industrial wind turbines
August 2011

<http://www.epaw.org/documents.php?lang=en&article=ns25>

Eon document, Turbines on your Land

<http://www.eon-uk.com/Turbinesonyourland.pdf>.

European examples

- **CZECH REPUBLIC**

There are no regulations on setbacks from wind turbine. In practice: 400 m to 800 m (1,312-2,625 ft).

- **DENMARK**

Wind turbines must be situated at a minimum distance of 4 × their height away from habitation. If the windmill is erected closer than 6 × its height, an estimation is carried out free of charge regarding the depreciation of the property value. If the loss is more than 1%, full compensation of the loss in property value is paid out.

If the property is situated farther away than 6 × the height of the turbine, 4,000 DKK is payable to have an evaluation of the loss in value carried out. If it is estimated that the depreciation is more than 1%, the loss in value of the property is paid out and the 4,000 DKK reimbursed. If it is estimated that there is no loss in value of the property, the 4,000 DKK is forfeited. Owners of wind turbines have to pay the compensation.

- **ENGLAND, WALES**

No regulations. In a court case, the previous owners of a house were condemned to compensate the buyers because they had not disclosed the wind farm project affecting the house: “District Judge Buckley decided that this amounted to ‘material misrepresentation’ and ordered the Holdings to pay compensation of 20 per cent of the market value of the house in 1997, £12,500, plus interest, because of damage to visual amenity, noise pollution and the ‘irritating flickering’ caused by the sun going down behind the moving blades of the turbines 550 metres [1,804 ft] from the house.”

- **FRANCE**

On a case-by-case basis, limited by noise legislation with a 500m exclusion zone around operational turbines.

However, in France, Marjolaine Villey-Migraine (PhD in Information and Communication, University of Paris II-Panthéon-Assas, Specialist in Scientific and Technical Information) concluded that the minimum should be 5 km (3 miles). More information can be found at www.wind-watch.org/documents/eoliennes-sons-et-infrasons-effets-de-leolien-industriel-sur-la-sante-des-hommes-wind-turbines-noise-and-infrasound-effects-of-industrial-wind-energy-on-human-health/.

- **GERMANY**

Different setbacks apply according to the noise level protection of the area :

- “quiet regions” [35 dB(A)]: 1,000-1,500 m (3,281-4,921 ft)
- “middle regions” [(40 dB(A)]: 600-1,000 m (1,969-3,281 ft)
- “standard region” [(45 dB(A)]: 300-600 m (984-1,969 ft)

All makes and models of wind turbines are not equally noisy, hence the lack of a precise distance. Some states have standards of their own.

- **ITALY**

Setbacks are determined by regional authorities. Some regions have defined setbacks, others don't. Calabria and Molise: 5 × the height of the turbines. Basilicata: 2 km from urbanized areas. Campania: 10 × the turbine height from urbanized areas. Molise: 20 × the turbine height from urbanized areas.

- **NETHERLANDS**

In practice, they use 4 × the height of the mast of the wind turbine. This is not a legal setback. The legal setback is linked to a maximum noise level [40 dB(A)].

- **NORTHERN IRELAND**

The "Best Practice Guidance to Planning Policy Statement 18 'Renewable Energy'" (August 2009) states: "As a matter of best practice for wind farm development, the Department [of the Environment] will generally apply a separation distance of 10 times rotor diameter to occupied property (with a minimum distance of not less than 500m)."

- **SCOTLAND**

On a case-by-case basis within 2 km of the edge of cities, towns, and villages (SSP6 legislation).

- **SPAIN**

National: noise legislation applies. Regional: wind power policies sometimes specify a setback. Examples:

- Valencia: 1,000 m (3,281 ft) from any piece of land that may be built upon.
- Andalucia: 500 m (1,640 ft)

- **SWEDEN**

The limit is the noise level [40 dB(A)].

Caithness Windfarm Information Forum
www.caithnesswindfarms.co.uk/page4.htm.

Legal Challenges- reference to High Court challenge by Jane and Julian Davis from Lincolnshire (settled out of court December 2011).

Emerging UK Legislation: Wind Turbines (Minimum Distances from Residential Premises) Act 2010 sponsored by Lord Reay

www.publications.parliament.uk/pa/ld201011/ldhansrd/text/110610-0001.htm#11061043000429

Turbine manufacturer's guidelines

www.windaction.org/documents/16496

British Horse Society statement

www.bhs.org.uk/sitecore/content/mss_content/Websites/MainSite/About_Us/Free_Leaflets/Rights_of_Way/Rights_of_Way_Leaflets.aspx

A paper from the Acoustic Ecology Institute - Wind Energy Noise impacts (17/9/2011)- suggesting a 1.5km set-back to avoid noise issues

<http://www.windaction.org/documents/17229>

A summary of new evidence (Aug 2011) of the adverse health impacts

<http://www.acousticecology.org/docs/AEI%20Wind%20Turbine%20Noise%20report%202009.pdf>

A report from the International congress on Noise as a Public Health Nuisance - July 2011 - concluding set-backs of less than 1.5km are unsafe

A report from Dr Andrew Bullmore of Hoare Lee Acoustice (2009 we believe) that states the original ETSU set-back guidelines of >350m should now be >700m

Information on AM - an Appendix from a Wind Farm Case produced by Mike Stigwood - MIOA, FRSPH - a leading UK expert, who notes excess AM impacts at distances of 1450m

<http://www.windaction.org/documents/33057>

How to site turbines to prevent health risks from sound " (2008) from George W. Kamperman and Richard James which states >1km setback based on the turbines of that time

<http://www.wind-watch.org/documents/the-how-to-guide-to-criteria-for-siting-wind-turbines-to-prevent-health-risks-from-sound/>

A summary of recently dismissed appeals in the UK (May 2011) quoting developer guidelines of >700m in some cases and >1000m for Scottish Power

Recent Relevant Appeal Dismissals by the Planning Inspectorate

No.	Date	Reference	Location	Turbines	Distance from Homes	Reasons Appeal dismissed
1.	24/02/11	APP/K3415/A/10/2134017	Lichfield	1 x 126.5m	26 within 850m (2 homes 450m away).	<ul style="list-style-type: none"> • Harm to heritage asset. • Detrimental effect on residential amenity.
2.	27/10/10	APP/W0530/A/09/2108277	Linton	8 x 125m	Closest 700m away, but most more than 1km away	<ul style="list-style-type: none"> • Radar issues not satisfactorily addressed. • Harm to heritage assets. • Harm to the landscape. • Likelihood of harm to protected species [bats].
3.	10/11/10	PPA-110-2055	Inverurie	3 x 92.5m	one 379m, five 500/600m	<ul style="list-style-type: none"> • Contrary to the provisions of the Local Plan • Impact on Landscape Character. • Visual Amenity
4.	20/09/10	APP/Y2810/A/10/2125093	Draughton	7 x 126.5m	33 within 3km radius, one 800m and one 700m	<ul style="list-style-type: none"> • Impact on heritage assets.
5.	19/02/10	P/PPA/110/2018	Inverurie	3 x 93.5m	one 379m, five 500/600m	<ul style="list-style-type: none"> • Visual amenity • Contrary to the provisions of the Local Plan
6.	08/07/10	APP/Y2430/A/09/2108595	Normanton	8 x 100m	Nearest property 725m	<ul style="list-style-type: none"> • Effect on landscape • Impact on heritage assets • Residential amenity.
7.	22/04/10	APP/R1038/A/09/2107667	Matlock Moor	5 x 126m	Nearest property 750m	<ul style="list-style-type: none"> • Harm to landscape • Impact on heritage assets • Impact on rare birds. • Concern over noise limits being breached. • Concern over ability to control noise effectively by the application of conditions. • Unacceptable harm to living conditions at 2 properties.
8.	11/02/10	APP/W4705/A/09/2114165	Bradford	1 x 120.5m	Situated in a residential area, the nearest property 165m	<ul style="list-style-type: none"> • General Safety • Adverse effect of Shadow Flicker. • Adverse noise effect and tightness of predicted noise margins to ETSU-R-97 limits. • Highway Safety. • Endangerment of protected species [bats].
9.	27/10/09	Joint Public Inquiry.	Steadings Estate Northumberland	21 x 125m	Isolated farms. Closest properties (< 900m) have a financial interest.	<ul style="list-style-type: none"> • Radar issues not satisfactorily addressed. • Impact on landscape • Impact on setting of heritage assets
10.	27/10/09	Joint Public Inquiry.	Ray Estate, Northumberland	16 x 125m	Village 2.5km away	<ul style="list-style-type: none"> • Radar issues not satisfactorily addressed.
11.	15/07/09	APP/L3245/A/08/2088742	Shropshire	7 x 110m	Several rural dwellings 690m – 750m away	<ul style="list-style-type: none"> • Residential amenity.
12.	16/03/09	APP/X2220/A/08/2071880	Langdon,	5 x 120m	1 property 360m, 27 homes within 820 m	<ul style="list-style-type: none"> • Radar issues not satisfactorily addressed. • Noise • Shadow Flicker • Visual amenity. • Insufficient separation distance
13.	09/03/09	APP/F2605/A/08/2089810	Shipdham	2 x 100m	9 within 700m, of which one 500m and another 432m 22 dwellings within 1093m	<ul style="list-style-type: none"> • Shortcomings of Ecotricity's background noise measurements. • Proximity to dwellings. • Tightness of predicted noise margins to ETSU-R-97 limits. • Reliance upon conditions to make the scheme acceptable. • Frequency with which the conditions would be triggered.

4. Information from Local Government Improvement and Development website

Identifying suitable sites

Wind speed	Minimum average wind speeds of 5 – 6m/s will be required to obtain a good return from a wind turbine, potentially higher for commercial developers who are looking to maximise profits.
Monitoring wind speed	Wind speed monitoring is advisable prior to developing a wind energy project, to obtain more accurate data on wind speeds at the height of the proposed turbine, to allow energy output to be estimated. Ideally, monitoring will be undertaken for a full year. Planning permission may be required for the wind monitoring mast.
Grid connection	Although some small wind turbines may be specified for off-grid locations, many will require access to a grid connection point. Underground or overhead power lines can be very expensive, so the closer the site is to a suitable connection point the better.
Spacing	If more than one turbine is being installed, a space of at least five times the diameter of the rotor should be allowed between turbines to optimise power output by reducing wind shadowing and or turbulence.
Access	Access for installation also needs to be taken into account. While remote areas may have better wind resources and less impact on the local community, access for vehicles to construct the foundations and transport the turbine blades and mast may be constrained.

Designated areas and approximate setback distances

Designated nature conservation areas	Designated nature conservation areas should be avoided, and a setback distance from the boundary of the designated area may be recommended by ecologists, for example, where sites are used by birds.
Designated landscape	Designated landscapes may or may not be suitable for wind turbines, depending on the reason for their designation and the impact that wind turbines may have on this. Views from designated landscapes to wind turbine sites in the vicinity may also need to be taken into account.
Bats	Hedgerows and woodland areas need to be avoided to reduce the potential impact on bats. Separation distances of around 50m for hedgerows and 100m for woodland may be required for large turbines.
Greenbelt	Greenbelt should be taken into account when deciding if a location is suitable, but is not an absolute constraint on wind energy development.
Residential properties	A setback distance of at least 600 – 800 metres from residential properties for large wind turbines. This may be reduced for smaller projects. Other land uses, including non-residential buildings and agriculture, can still be accommodated in this zone.
Infrastructure	Minimum distances from roads, power lines, gas pipelines and other infrastructure, which are required by the Highways Agency and other infrastructure operators including National Grid.
Exclusion area	Exclusion areas around airports, airfields and MOD land, which should be determined in consultation with the relevant bodies depending on the nature of the project.
Communication links	Communications links need to be taken into account in consultation with the relevant telecoms operators.

Source: <http://www.idea.gov.uk/idk/core/page.do?pagelId=25290366>

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Sustainability Appraisal

Non-technical summary:

**Sustainability Appraisal/Strategic Environmental assessment of the
Draft Wind Turbine Supplementary Planning Document and Emerging
Planning Policy: Wind Turbines Planning Applications**

January 2012

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1. Introduction

- 1.1 This non-technical summary of the Sustainability Appraisal/Strategic Environmental Assessment (SA/SEA) report should be read alongside the full SA/SEA and the Wind Turbines Supplementary Planning Document (SPD) and Emerging Planning Policy.
- 1.2 This report aims to provide information which will support evaluation of the SPD by stakeholders and members of the public, and assist in forming consultation responses to the draft SPD.
- 1.3 This SA/SEA report is published alongside the draft SPD and comments on both documents are welcomed.

2. Methodology

- 2.1 The SA/SEA report has been produced in accordance with the SEA Directive and government guidance. It incorporates the ‘scoping report’ produced as part of ‘Stage A’ and adds the ‘environmental report’ as part of ‘Stage B and C’. English Heritage, Natural England and the Environment Agency were consulted on the scope of the SA/SEA in December 2011. The appraisal of the draft Wind Turbines Supplementary Planning Document and Emerging Planning Policy was undertaken by the Milton Keynes Development Plans team in December 2011 and amended in January 2012 to reflect changes to the consultation documents agreed at Cabinet on 17 January 2012.

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	<p>A1: Identifying other relevant plans, programmes and environmental protection objectives</p> <p>A2: Collecting baseline information</p> <p>A3: Identifying sustainability issues</p> <p>A4: Developing SEA objectives</p> <p>A5: Consulting on the scope of the SEA</p>
Stage B: Developing and refining alternatives and assessing effects	<p>B1: Testing the plan or programme objectives against the SEA objectives</p> <p>B2: Developing Strategic Alternatives</p> <p>B3: Predicting the effects of the plan or programme, including alternatives</p> <p>B4: Evaluating the effects of the draft plan or programme, including alternatives</p> <p>B5: Considering ways of mitigating adverse effects</p> <p>B6: Proposing measures to monitor the environmental effects of plan or programme implementation</p>
Stage C: Preparing the environmental report	<p>C1: Preparing the environmental report</p>
Stage D: Consultation and decision-making	<p>D1: Consulting on the draft plan or programme and environmental report</p> <p>D2: Assessment of significant changes</p> <p>D3: Decision making and providing information</p>
Stage E: Monitoring implementation of the plan or	<p>E1: Developing aims and methods for monitoring</p> <p>E2: Responding to adverse effects</p>

3. Content and objectives of the Wind Turbines Supplementary Planning Document and Emerging Planning Policy

3.1 The principal objective of the wind turbines SPD and emerging policy is to offer protection of residential amenity from any unintended impacts of wind turbine developments. The document originally only covered large scale wind turbines that are generally constructed as part of an industrial wind farm. However, the document was amended to cover wind turbines with a height of 25 metres and above. As part of this amendment, turbines of less than 25m are exempt from separation distances.

4. Baseline Situation

4.1 Milton Keynes borough covers an area of approximately 50,000 hectares. The population increased by an estimated 1.8% between 2009 and 2010 to 240,990. Current capacity from wind farms equates to 14MW from a single site at Petsoe Manor near Olney. Milton Keynes has a wealth of historic and environmental assets with 50 scheduled ancient monuments, three registered parks and gardens, 27 conservation areas and over 1,100 listed buildings. Of these one listed building and six scheduled ancient monuments are currently at risk. Excluding Wildlife Sites, there were 1,951 hectares of sites designated for their biodiversity value in the Borough. This equates to 6.32% of the whole Borough.

5. Sustainability Framework

5.1 A review of relevant plans, policies, programmes and environmental objectives, combined with the baseline data and officer knowledge identified a number of key sustainability issues.

Wind farm developments can reduce reliance on green house gases and in turn reduce the vulnerability of rare and endangered flora and fauna to changes in climate in the longer term.
There may be immediate impacts on biodiversity depending on the location of turbines.
Potential for additional noise, shadow flicker and other risks associated with on-shore wind turbines.
Wind farms could have implications for soil quality and loss of agricultural land.
Wind development has the potential to make a positive contribution to reducing CO2 emissions and increasing energy supply from renewable sources
Wind developments are likely to have a visual impact on landscape.

5.2 This all led to the development of an SA/SEA framework that included the identification of nine objectives; one social, one economic and seven environmental.

Objective
Social
1. Improve the health and quality of life of residents.
Environmental

2. Continue to maintain and improve local air quality and limit noise pollution.
3. Encourage the use of renewable sources of energy.
4. Conserve and enhance Milton Keynes' biodiversity.
5. Conserve and enhance Milton Keynes' landscape character.
6. Conserve and enhance the Borough's cultural heritage.
7. Reduce the risk of flooding.
8. Improve efficiency of land use.
Economic
9. Encourage the creation of new businesses and ensure high levels of employment.

October 2011 Development Control Committee

5.3 At a meeting of Development Control Committee (DCC) on the 13 October 2011 a proposal from a Parish Councillor was put forward in the form of a draft SPD. As well as general guidance, this included separation distances as follows:

- 1) If the height of the wind turbine generator is—
 - i. greater than 25m, but does not exceed 50m, the minimum distance requirement is 1000m;
 - ii. greater than 50m, but does not exceed 100m, the minimum distance requirement is 1500m;
 - iii. greater than 100m, but does not exceed 150m, the minimum distance requirement is 2000m;
 - iv. greater than 150m, the minimum distance requirement is 3000m.

20 December 2011 Cabinet

5.4 Following DCC, officers developed nine options for the draft SPD:

- **Option 1:** 'Do nothing': this would maintain the 350metres separation distance of the local plan policy D5
- **Option 2:** Adopt the SPD with a separation distance of 600 metres from dwellings
- **Option 3:** Adopt the SPD with a separation distance of 800 metres from dwellings
- **Option 4:** Adopt the SPD with a separation distance of 1,000 metres from dwellings
- **Option 5:** Adopt the SPD with a separation distance of 600 metres from settlements
- **Option 6:** Adopt the SPD with a separation distance of 800 metres from settlements
- **Option 7:** Adopt the SPD with a separation distance of 1,000 metres from settlements
- **Option 8:** Adopt the SPD with a separation distance of 1,500 metres from settlements

- **Option 9:** Adopt the SPD with a separation distance of 2,000 metres from settlements

- 5.5 The nine options were all based on the December 2011 SPD only applying to wind turbines over 80 metres in height, but did cover all the distances proposed to the Development Control Committee in October, bar the 3000 metre distance which was adequately covered by the assessment for 2000 metres.
- 5.6 The nine options were assessed against the sustainability objectives. The appraisal of the options concluded that options 5 and 6 were the most sustainable options. Given the similarity between the two options, it was not possible for the SA to conclude definitively as to which provides the most sustainable option.
- 5.7 The options were presented to Cabinet for consideration where option 4 was chosen as the preferred option along with additional amendments to the policy. The decision was called-in and referred back to Cabinet for further consideration.

17 January 2012 Cabinet

- 5.8 At a meeting of Cabinet on 17 January, it was resolved to publish the draft SPD for consultation with a new option. This option involves a sliding scale to be applied to separation distances with larger turbines requiring a greater separation distance (similar to the proposal put to DCC). It should be noted that the SA work had previously been undertaken on the basis that, in order to ensure the options were distinct, the separation distance was applied rigidly. An earlier draft of the SPD (December 2011), provided guidance on separation distances that would allow flexibility. The current draft SPD (January 2012), has removed this flexibility and would now lead to refusal of any application that did not comply with the minimum distances unless it meets the exception criteria set out in the policy.

6. Likely significant effects on the environment of implementing the plan

- 6.1 With the introduction of a graded scale approach there is scope to encourage smaller wind turbines¹ within the Borough. Typically an industrial scale wind farm will consist of turbines of at least 80 metres in height, and often larger. Based on the mapping undertaken for the SA, it is clear that opportunities will be limited. On this basis, the option performs well in terms of protecting residential amenity. However, it would score negatively against objective 3 and 9.
- 6.2 Significantly, the draft SPD now requires the separation distances to be met, or planning permission will be refused unless the exception criteria are met. This will therefore, have a more significant impact (both positive and negative) than the previously assessed options.

¹ Smaller wind turbines are those below 80 meters in height and for those below 25 metres in height, the 350 meter separation distance in policy D5 would be relaxed

7. Uncertainties and risk

- 7.1 There are a number of uncertainties and risks associated with the appraisal. The scope of the SPD meant that the differences between the options could be considered relatively minor which made assessment of the differences and the effects more difficult. The small increase in the size of the buffers in some cases also made it difficult to appraise the effects, particularly for options 5, 6 and 7. In addition, it is difficult to reflect the specific nature of wind turbine development and their impacts against some of the SA/SEA framework objectives. The assessment acknowledges that it is only possible to determine the actual impacts on a site by site basis or at a level for which data collection is currently unavailable. The SA/SEA is the high level strategic assessment looking at the likely impacts and any planning applications for wind farms will be subject to Environmental Impact Assessment (EIA) that would identify the specific environmental effects of a proposal.

8. Monitoring

- 8.1 The indicators will be monitored where data is available through the Milton Keynes Annual Monitoring Report.

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**Sustainability Appraisal/Strategic Environmental Assessment of the
Wind Turbines Supplementary Planning Document and Emerging
Planning Policy: Wind Turbines Planning Applications**

Draft Environmental Report for Consultation (January 2012)

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1. Wind Turbines Supplementary Planning Document

- 1.1 This environmental report has been produced to assess the environmental impacts of the 'Wind Turbine Supplementary Planning Document and Emerging Planning Policy: Wind Turbines Planning Applications' document that provides additional guidance on the application of planning policy D5 of the Adopted Local Plan 2005.
- 1.2 The principal objective of the wind turbines SPD and emerging policy is to offer protection of residential amenity from any unintended impacts of wind turbine developments. The document originally covered large scale wind turbines that are generally constructed as part of a wind farm, but was amended to include wind turbines of 25 metres and above.

2. The need for SEA

- 2.1 European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the Strategic Environmental Assessment (SEA) Directive), was transposed into English Law in July 2004 through the 'SEA regulations'. The SEA process extends the assessment of environmental impacts from individual development projects to the broader perspective of regional, county and local level plans. It is a systematic process that assists authorities in the identification and assessment of the significant environmental impacts of a plan.
- 2.2 Milton Keynes Council is conducting the SEA alongside the process of developing and publishing a Wind Turbine Supplementary Planning Document and Emerging Planning Policy.

Compliance with the SEA Directive

Requirement of SEA Directive	Where covered in the SA Report
a) Outline of the plan, its main objectives, and relationship with other relevant plans	Section 1 provides a summary of the SPD. Section 3 and Appendix A show the relationship with other relevant plans.
b) Relevant aspects of the current state of the environment and their likely evolution without implementation of the plan;	Section 4 and Appendix B
c) Environmental characteristics of areas likely to be significantly affected;	Section 4 and Appendix B
d) Any existing environmental problems which are relevant to the plan, including, in particular, those relating to areas of particular environmental importance;	Section 4, Section 5 and Appendix B
e) Environmental protection objectives established at international, community or national level, which are relevant to the plan and the way they and any environmental considerations	Section 3, Section 6, Appendix A and Appendix D.

have been taken into account during its preparation;	
f) The likely significant effects of the plan on the environment: biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between them. (Effects should include secondary, cumulative, synergistic, short, medium and long term, medium and long term, permanent and temporary, positive and negative effects).	Section 8, 10, 11, 12 and Appendix G
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment and implementing the plan.	Section 13
h) Outline of the reasons for selecting the alternatives dealt with. Description of how the assessment was undertaken, including any difficulties (eg. technical or lack of know how) encountered in compiling required information.	Section 8 and Section 9
i) Description of measures envisaged for monitoring.	Section 15
j) Non technical summary.	Non technical summary

2.3 The main stages of the SEA are:

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	A1: Identifying other relevant plans, programmes and environmental protection objectives A2: Collecting baseline information A3: Identifying sustainability issues A4: Developing SEA objectives A5: Consulting on the scope of the SEA
Stage B: Developing and refining alternatives and assessing effects	B1: Testing the plan or programme objectives against the SEA objectives B2: Developing Strategic Alternatives B3: Predicting the effects of the plan or programme, including alternatives B4: Evaluating the effects of the draft plan or programme, including alternatives

	B5: Considering ways of mitigating adverse effects B6: Proposing measures to monitor the environmental effects of plan or programme implementation
Stage C: Preparing the environmental report	C1: Preparing the environmental report
Stage D: Consultation and decision-making	D1: Consulting on the draft plan or programme and environmental report D2: Assessment of significant changes D3: Decision making and providing information
Stage E: Monitoring implementation of the plan or programme	E1: Developing aims and methods for monitoring E2: Responding to adverse effects

- 2.4 This document incorporates the Stage A Scoping Report, and the Stage B and C Environmental Report.
- 2.5 A Scoping Report constituting Stage A: Tasks A1 to A5 was produced in November 2011 and sent to the three statutory consultees (English Heritage, Natural England and Environment Agency) for comment. The content of the Scoping Report was, where appropriate, updated and is set out below. Copies of the November 2011 Scoping Report are available from www.milton-keynes.gov.uk/wind-turbines.
- 2.6 Comments from the statutory consultees were taken into account in finalising the scope of the SEA and in setting the 'SEA Framework'. A summary of comments is shown in Appendix E. The SEA was also extended to become a full sustainability appraisal (SA). The Scoping Report originally covered matters of environmental concern, and also issues of population and human health (social) in accordance with the SEA Directive. It was decided that it would be appropriate to extend the SEA to an SA and include economic considerations. Incorporating full Sustainability Appraisal led to the addition of one objective for the SA/SEA Framework in recognition of the economic impacts of wind farm developments.
- 2.7 The decision making prompts were also amended to add clarity and to reflect the aim of the objective more positively.

STAGE A:

Setting the context and objectives, establishing the baseline and deciding on the scope

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	A1: Identifying other relevant plans, programmes and environmental protection objectives A2: Collecting baseline information A3: Identifying sustainability issues A4: Developing SEA objectives A5: Consulting on the scope of the SEA
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Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope

What the Directive says:

The Environmental Report shall include information on [inter alia]:

- the “relationship [of the plan or programme] with other relevant plans and programmes” (Annex I(a))
- “the environmental protection objectives, established at international, [European] Community or [national] level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation” (Annex I (e))
- “relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme” and “the environmental characteristics of areas likely to be significantly affected” (Annex I (b), (c))
- “any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC” (Annex I (d))

“The authorities ... which, by reason of their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing plans and programmes ... shall be consulted when deciding on the scope and level of detail of the information which must be included in the environmental report” (Article 5.4 and 6.3).

3. A1: Identifying other relevant plans, programmes policies and environmental protection objectives (PPPs)

- 3.1 In order to assist in scoping the SEA it was necessary to review the wide range of plans, programmes, polices and environmental protection objectives that are of relevance to the SPD and Emerging Planning Policy.
- 3.2 The review of the PPPs has two main purposes. Firstly, they will inform the content of the Wind Turbine SPD and secondly they will help inform the preparation of the SEA. For the SEA, the PPPs will be used to inform some of the key sustainability issues related to wind turbines in Milton Keynes borough. This, in turn, will inform the sustainability framework against which the draft SPD will be assessed.
- 3.3 Taking into account the scope of the Wind Turbine Supplementary Planning Document, a range of relevant plans, programmes and objectives have been identified that should be taken into account in the preparation of the Wind Turbine SPD and the accompanying Sustainability Appraisal/Strategic Environmental Assessment. Appendix A of this report sets out in detail the PPPs most relevant to the Wind Turbine SPD.
- 3.4 Stage A3 uses this review to establish the key sustainability issues which informs the SA/SEA Framework.

4. A2: Collecting baseline information

4.1 The Wind Turbine SPD will have a number of potential impacts. It is anticipated that these are most likely in environmental and human health areas. Milton Keynes borough covers an area of approximately 50,000 hectares. The population increased by an estimated 1.8% between 2009 and 2010 to 240,990. Current capacity from wind farms equates to 14MW from a single site at Petsoe Manor near Olney. Milton Keynes has a wealth of historic and environmental assets with 50 scheduled ancient monuments, three registered parks and gardens, 27 conservation areas and over 1,100 listed buildings. Of these one listed building and six scheduled ancient monuments are currently at risk. Excluding Wildlife Sites, there were 1,951 hectares of sites designated for their biodiversity value in the Borough. This equates to 6.32% of the whole Borough.

4.2 Appendix B sets out the baseline data for Milton Keynes that is of relevance to the Wind Turbine SPD.

5. A3: Identifying sustainability issues

5.1 Following a review of relevant plans, policies, programmes and environmental objectives and an assessment of the baseline data, the following key issues were identified for Milton Keynes and the Wind Turbine SPD and Emerging Policy.

Sustainability Issues Arising from Stage A1 and A2	Implications for the SPD
Wind farm developments can reduce reliance on green house gases and in turn reduce the vulnerability of rare and endangered flora and fauna to changes in climate in the longer term.	The SPD will need to fully consider the implications for locating wind turbines in the most suitable locations to balance the potential benefits of renewable energy and the potential for short term negatives.
There may be immediate impacts on biodiversity depending on the location of turbines.	The SPD will need to have regard to the immediate impacts of Wind Turbines on local biodiversity.
Potential for additional noise, shadow flicker and other risks associated with on-shore wind turbines.	The SPD will need to reflect possible impacts on the population in determining appropriate locations for wind turbines.
Wind farms could have implications for soil quality and loss of agricultural land.	The setting of separation distances should consider the implications for the need to protect soil quality and agricultural land although there is no grade 1 agricultural land in the Borough.
Wind development has the potential to make a positive contribution to reducing CO2 emissions and increasing energy supply from renewable sources	The SPD will need to balance the benefits of wider climate change, CO2 reduction and renewable energy production objectives with local environmental matters.
Wind developments are likely to have a visual impact on landscape.	The setting of separation distances should consider the implications for the need to

	protect landscape character and quality where appropriate.
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6. A4: Developing SEA objectives

6.1 The SEA Objectives have been devised taking into account the review of relevant PPPs, the baseline data and officer knowledge. The objectives have been focussed to those that are most relevant to the Wind Turbine SPD and Emerging Planning Policy.

6.2 The SEA objectives will be used to assess the impacts of the Wind Turbine SPD and Emerging Planning Policy. They have been tested for internal compatibility (see Appendix D). This highlighted potential conflict between the objective of encouraging renewable energy and the other environmental objectives. Some of this conflict is potentially only short term.

7. SA/SEA Framework

SEA Topic	Objective	Decision Making Prompts Will the proposed option.....	Indicators for Objectives
Social			
Human Health.	1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	% of people describing their health as 'good'.
			% of people describing their health as 'not good'.
Environmental			
Air.	2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints?	Number of complaints in relation to wind turbines.
		....lead to an improvement in air quality?	Number AQMA
Climatic Factors, Material Assets.	3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	Capacity of Wind Farms in MK Borough (MW).
Biodiversity, Flora and Fauna, Landscape.	4. Conserve and enhance Milton Keynes' biodiversity.	....protect sites designated for their biodiversity value?	% SSSI in favourable condition.
		....avoid adverse effects on bat and bird species of biodiversity value?	Extent of designated sites. Extent of BAP priority habitat.
Biodiversity, Flora and Fauna, Landscape.	5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside?	No indicator
		....protect the landscape character of the Borough?	No indicator
		....minimise negative visual impacts?	No indicator
Cultural Heritage.	6. Conserve and enhance the	....protect or enhance archaeological sites,	Number of SAMs on the English

	Borough's cultural heritage.	monuments, structures, historic parks, gardens, listed buildings or conservation areas?	Heritage 'Heritage at Risk Register'.
Water.	7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk?	Number of wind turbine applications permitted contrary to EA advice relating to flooding.
		....reduce the risk of flooding?	SFRA
Soil, Landscape, Flora and Fauna.	8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land?	Number of wind turbine applications permitted by agricultural land classification.
		....prioritise the use of previously developed land?	Number of wind turbines permitted on PDL
Economic			
Population	9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the Borough?	No indicator

STAGE B:

Developing and refining alternatives and assessing effects

Stage B: Developing and refining alternatives and assessing effects	B1: Testing the plan or programme objectives against the SEA objectives B2: Developing Strategic Alternatives B3: Predicting the effects of the plan or programme, including alternatives B4: Evaluating the effects of the draft plan or programme, including alternatives B5: Considering ways of mitigating adverse effects B6: Proposing measures to monitor the environmental effects of plan or programme implementation
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STAGE C:

Preparing the Environmental Report

Stage C: Preparing the environmental report	C1: Preparing the environmental report
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Stage B: Developing and refining alternatives and assessing effects

What the Directive says:

“... an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated” (Article 5.1). Information to be provided in the Environmental Report includes “an outline of the reasons for selecting the alternatives dealt with” (Annex I (h)).

8. B1: Testing the plan or programme objectives against the SEA objectives

8.1 The objective of the Wind Turbine SPD and Emerging Planning Policy is to:

- 1) offer protection of residential amenity from any unintended impacts of wind turbine developments,
- 2) assess the separation distance for wind turbines (currently 350 metres in Local Plan Policy D5) and
- 3) clarify the approach for assessing individual applications.

8.2 The SPD objectives have been tested against the SA/SEA Objectives established in the SA/SEA Framework.

✓	Plan objective is compatible with the SA/SEA Objective
✘	Plan objective is incompatible with the SA/SEA objective
?	The compatibility of the plan objective with the SA/SEA objective is uncertain

SA/SEA Objective
1. Improve the health and quality of life of residents.
2. Continue to maintain and improve local air quality and limit noise pollution.
3. Encourage the use of renewable sources of energy.
4. Conserve and enhance Milton Keynes’ biodiversity
5. Conserve and enhance Milton Keynes’ landscape character.
6. Conserve and enhance the Borough’s cultural heritage.
7. Reduce the risk of flooding.
8. Improve efficiency of land use.
9. Encourage the creation of new businesses and ensure high levels of employment.

SPD Objective	SA/SEA Objective								
	1	2	3	4	5	6	7	8	9
offer protection of residential amenity from any unintended impacts of wind turbine developments,	✓	✓	? ¹	✓	✓	✓	✓	✓	✓

assess the separation distance for wind turbines (currently 350 metres in Local Plan Policy D5) and	?	?	?	?	?	?	?	?	?
clarify the approach for assessing individual applications.	✓	✓	✓	✓	✓	✓	✓	✓	✓

Comments	
¹	Will depend on level of protection of residential amenity.
²	The impact against the objectives will depend on whether the separation distance is revised through the SPD

Stage B2: Developing Strategic Alternatives

8.3 Given the remit of the Wind Turbines SPD and emerging policy it is considered that two strategic options are suitable for assessment through the SEA process, these are:

- Do not produce an SPD and Emerging Planning Policy ('Do Nothing')
- Produce a Wind Turbine SPD and Emerging Planning Policy

8.4 Under the 'do nothing' approach it is important to remember that if the SPD is not produced, Adopted Local Plan Policy D5 would remain in force. A 'do nothing' approach would, therefore, mean remaining with the Local Plan Policy without additional guidance; it would not mean that there was no policy guidance.

Stage B3: Predicting the effects of the plan or programme, including alternatives & Stage B4: Evaluating the effects of the draft plan or programme, including alternatives.

8.4 The following assessment 'scoring' will be used alongside the SEA objectives:

✓	The option will have a predominantly positive effect when assessed against the SEA objective
*	The option will have a predominantly negative effect when assessed against the SEA objective
✓/✗	There will be both positive and negative effects from the option when assessed against the SEA objective
?	The effects of the option are uncertain/unclear when assessed against the SEA objective
0	The option will have no effect on the SEA objective

October 2011 Development Control Committee

8.5 At a meeting of Development Control Committee (DCC) on the 13 October 2011 a proposal from a Parish Councillor was put forward in the form of a draft SPD. As well as general guidance, this included separation distances as follows:

- 2) If the height of the wind turbine generator is—
 - v. greater than 25m, but does not exceed 50m, the minimum distance requirement is 1000m;
 - vi. greater than 50m, but does not exceed 100m, the minimum distance requirement is 1500m;
 - vii. greater than 100m, but does not exceed 150m, the minimum distance requirement is 2000m;
 - viii. greater than 150m, the minimum distance requirement is 3000m.

20 December 2011 Cabinet

8.6 Following DCC, officers developed nine options for the draft SPD, which incorporated all of the distances in the proposal from the parish councillor, except the 3000 metre separation as this was adequately covered in the 2000 metre distance.. The main aim of the SPD is to protect residential amenity through the introduction of an appropriate separation distance. The appraisal has therefore focussed on the separation distance and appraised the range of distances that were considered through the SPD process. The options have been refined to:

- **Option 1:** 'Do nothing': this would maintain the 350metres separation distance of the Local Plan policy D5
- **Option 2:** Adopt the SPD with a separation distance of 600 metres from dwellings
- **Option 3:** Adopt the SPD with a separation distance of 800 metres from dwellings
- **Option 4:** Adopt the SPD with a separation distance of 1,000 metres from dwellings
- **Option 5:** Adopt the SPD with a separation distance of 600 metres from settlements
- **Option 6:** Adopt the SPD with a separation distance of 800 metres from settlements
- **Option 7:** Adopt the SPD with a separation distance of 1,000 metres from settlements
- **Option 8:** Adopt the SPD with a separation distance of 1,500 metres from settlements
- **Option 9:** Adopt the SPD with a separation distance of 2,000 metres from settlements

8.7 Originally, the separation distances were intended to guide development to areas outside of those separation distances. They would not have acted as a blanket ban on

8.8 The geographical coverage of the differing separation distances are shown in Appendix F.

8.9 A summary of the appraisal is shown below. The full assessment is available in Appendix G.

	SA/SEA Objective								
	1 Health	2 Air & Noise	3 Renewable Energy	4 Biodiversity	5 Landscape	6 Heritage	7 Flooding	8 Land use	9 Economy
Option 1: 350m Buffer from dwellings	✓	✓	✓	?	✓	✓	✓	✗	✓
Option: 2 600m Buffer from dwellings	✓	✓	?	?	✓	✓	✓	✗	?
Option: 3 800m Buffer from dwellings	✓	✓	✗	✓/✗	✓	✓	✓/✗	✗	✗
Option: 4 1000m buffer from dwellings	✓	✓	✗	✓/✗	✓	✓	✓/✗	✗	✗
Option: 5 600m buffer from settlements	✓	✓	✓	?	✓	✓	✓	✗	✓
Option: 6 800m buffer from settlements	✓	✓	✓	?	✓	✓	✓	✗	✓
Option: 7 1000m buffer from settlements	✓	✓	?	?	✓	✓	✓	✗	?
Option: 8 1500m buffer from settlements	✓	✓	✗	✓/✗	✓	✓	✓/✗	✗	✗
Option: 9 2000m buffer from settlements	✓	✓	✗	✓/✗	✓	✓	✓/✗	✗	✗

SA/SEA Objective	Comments
1. Improve the health and quality of life of residents.	All of the options have a positive effect on the objective. They all afford some level of protection. As the distance increases, the significance of this effect also increases.
2. Continue to maintain and improve local air quality and limit noise pollution.	All of the options have a positive effect on the objective. They all afford some level of protection. As the distance increases, the significance of this effect also increases.
3. Encourage the use of renewable sources of energy.	Option 1, 5, and 6 score positively against the objective. They all identify areas where wind turbines would be considered appropriate for consideration. The effect of options 2 and 7 is uncertain. Under these options, while they still provide some opportunities, these are more limited than options 1, 5 and 6 (albeit marginally so) and it is uncertain to what extent any development could be delivered within the more limited areas. Option 3, 4, 8 and 9 all score negatively as the opportunities are clearly more limited. The size of the separation zones under these options would provide little to no opportunity for wind turbines in the borough.
4. Conserve and enhance Milton Keynes' biodiversity.	The effect of Options 1, 2, 5, 6, and 7 is uncertain. Ruling out parts of the borough for development through a residential separation distance would protect those areas. However, the separation distance has not taken into account sites or species of biodiversity value. It could lead to increased pressure on sensitive sites or species outside the buffer zones. Options 3, 4, 8 and 9 limit development in the borough. In the short term, this will score positively against the objective due to the immediate short term protection for sites and species of biodiversity value. However, longer term, there are potentially negative effects arising from climate change which could impact on habitats. Although the contribution of renewable energy in MK would be small in the overall picture of climate change, by ruling out wind turbines it leads to a negative effect against the objective.
5. Conserve and enhance Milton Keynes' landscape character.	All of the options would have a positive effect on the objective. While any development would have implications for landscape character, most of the character is considered of moderate quality. The primary reason for a positive score is the positive impact on visual amenity. In this regard, while all the option have a positive effect, this effect becomes more significant, the larger the separation zone.
6. Conserve and enhance the Borough's cultural heritage.	While any development could have implications for cultural heritage, SAMs and archaeological sites in particular would be at risk, all of the options would have a positive effect on the objective, primarily for the protection that would be afforded to cultural heritage in urban areas such as limiting the effect on listed buildings and conservation areas. In this regard, while all the option have a positive effect, this effect becomes more significant, the larger the separation zone.
7. Reduce the risk of flooding.	Options 1, 2, 5, 6 and 7 are considered to score positively against the objective. This is in relation to reducing the risk of flooding and is only considered to be a long term positive effect of low significance given a long term view of reducing

	our impact on climate change through the use of renewable energy sources. Options 3, 4, 8 and 9 score negatively in this regard although again this effect is considered to be of low significance. However, there may be a minor positive effect as by ruling out wind turbines in the borough it would avoid wind turbines and their associated infrastructure being located in areas of flood risk.
8. Improve efficiency of land use.	None of the options score positively against the objective because separation distances will prevent development in and around urban areas which is likely to rule out development opportunities on previously developed land.
9. Encourage the creation of new businesses and ensure high levels of employment	Options 1, 5 and 6 score positively against the objective as linked to objective 3, they provide opportunities for wind turbine development and therefore encourage economic activity. Options 3, 4, 8 and 9 have a negative effect as they would prevent development and the effect of options 2 and 7 is uncertain as while they still provide some opportunities, these are more limited than under options 1, 5 and 6 although it is accepted that the effect is marginal given the small increments in the size of the buffers appraised.

Option1: 'Do nothing': this would maintain the 350 metre separation distance of the local plan policy D5

- 8.10 The option would score positively against the social objectives although the significance of the positive effect is less than the other options given the smaller separation distance. It also scores positively against the environmental objectives, although as with the social objective, aside from objective 3 which is a significant positive, the effect is not as significant as other options. In terms of the economic objectives, it provides opportunities for renewable energy and the associated short to medium economic benefits associated with wind turbine developments.

Option 2: Adopt the SPD with a separation distance of 600 metres from dwellings

- 8.11 The option scores positively against the social objectives and the significance of the effect is greater than that of some other options. Against the environmental objectives it also scores positively. However, it is more restrictive than other options, leading to uncertainty over the effect against the objective of encouraging renewable energy. This is also true against the economic objective.

Option 3: Adopt the SPD with a separation distance of 800 metres from dwellings

- 8.12 Although the option performs positively in terms of protecting residential amenity, it would score negatively against objective 3 and 9 by limiting development within the borough.

Option 4: Adopt the SPD with a separation distance of 1,000 metres from dwellings

- 8.13 Although the option performs best in terms of protecting residential amenity, it would score negatively against objective 3 and 9 by limiting development within the borough.

Option 5: Adopt the SPD with a separation distance of 600 metres from settlements

- 8.14 The option would score positively against the social objectives. It also scores positively against the environmental objectives. In terms of the economic objectives as it provides opportunities for renewable energy and the associated short to medium economic benefits associated with wind turbine developments.

Option 6: Adopt the SPD with a separation distance of 800 metres from settlements

- 8.15 The option would score positively against the social objectives. It also scores positively against the environmental objectives. In terms of the economic objectives as it provides opportunities for renewable energy and the associated short to medium economic benefits associated with wind turbine developments.

Option 7: Adopt the SPD with a separation distance of 1,000 metres from settlements

- 8.16 The option scores positively against the social objectives and the significance of the effect is greater than that of some other options. Against the environmental objectives it also scores positively. However, it is more restrictive than other options therefore leading to uncertainty over the effect against the objective of encouraging renewable energy. This is also true against the economic objective.

Option 8: Adopt the SPD with a separation distance of 1,500 metres from settlements

- 8.17 Although the option performs positively in terms of protecting residential amenity, it would score negatively against objective 3 and 9 by limiting development within the borough.

Option 9: Adopt the SPD with a separation distance of 2,000 metres from settlements

- 8.18 Although the option performs best in terms of protecting residential amenity, it would score negatively against objective 3 and 9 by limiting development within the borough.

Options conclusion

- 8.19 It should be noted that no weighting has been applied to the objectives in the SA/SEA framework. The council may wish to prioritise some objectives over others; for example, one of the objectives of the draft SPD is to provide protection for residential amenity. If greatest weight is attached to residential amenity, then Option 9 would be the most suitable option as it provides the greatest separation distance, and therefore the most significant positive effect in terms of possible health benefits and visual impact. Conversely, if economic objectives are the priority, objective 9 would be the least appropriate option.
- 8.20 This SA aims to provide an overall appraisal of the options to best deliver sustainable development.
- 8.21 On this basis it is considered that options 3, 4, 8 and 9 would provide the least sustainable option and should be ruled out as appropriate options.
- 8.22 Options 2 and 7 have uncertainties to the extent to which they would restrict wind turbine development which undermines the potential positive and negative effects particularly in terms of objectives 3 and 9, which whilst not rendering them wholly unsustainable options, would indicate that they should be ruled out.
- 8.23 Therefore the most sustainable options for further consideration are considered to be:
- **Option 1:** 'Do nothing': this would maintain the 350 metre separation distance of the local plan policy D5
 - **Option 5:** Adopt the SPD with a separation distance of 600 metres from settlements
 - **Option 6:** Adopt the SPD with a separation distance of 800 metres from settlements
- 8.24 In terms of the overall effect against the objectives (either positive or negative) the three options all perform the same. The differences are between the significance of that effect, i.e. just how positive or negative the effect is considered likely to be. It is worth noting at this point that the differences between the options are not great,

- 8.25 The basic rule is that, as the distance increases, the social effect becomes more significant and the economic effect less significant. The environmental impacts are mixed.
- 8.26 On balance, in terms of maximising positive impacts and minimising negative impacts, the most sustainable options are considered to be:
- **Option 5:** Adopt the SPD with a separation distance of 600 metres from settlements
 - **Option 6:** Adopt the SPD with a separation distance of 800 metres from settlements

9. Preferred Option: The draft SPD and Emerging Policy

9.1 At a meeting of Cabinet on the 17 January 2012 it was resolved to choose a new option for inclusion in the SPD. The current SPD proposes a sliding scale for residential separation distances, depending on the height of the turbine. It also introduces separation distances to bridleways, roads and public footpaths. This is a wider scope than the SPD originally intended, as it was previously only concerned with large scale wind turbines and a single separation distance.

9.2 To help understand the implications of the added restrictions, maps have been produced to demonstrate where a 25m turbine would be acceptable and where an 80m wind turbine would be acceptable. 80m was considered to be the smallest size for a typical industrial scale wind farm. The mapping shows that at this height (and all heights above this), development is limited under the policy. Previously, 25 metre wind turbines were excluded from the previous draft SPD (December 2011), meaning the policy is more restrictive than the previously considered options, particularly due to the inclusion of bridleways and footpaths. However, it does increase the scope for smaller turbines by removing the separation distance for wind turbines under 25 metres in height. It also introduces an exception to the separation distances where residents agree to development. The additional mapping is shown at Appendix H. A full appraisal is shown in Appendix I with a summary below:

	SA/SEA Objective								
	1 Health	2 Air & Noise	3 Renewable Energy	4 Biodiversity	5 Landscape	6 Heritage	7 Flooding	8 Land use	9 Economy
Draft SPD & Emerging Policy	✓	✓	✗	✓/✗	✓	✓	✓/✗	✗	✗

10. Significant effects of implementing the preferred option

- 10.1 With the introduction of a graded scale approach there is scope to encourage smaller wind turbines² within the Borough. Typically an industrial scale wind farm will consist of turbines of at least 80 metres in height, and often larger. Based on the mapping undertaken for the SA, it is clear that opportunities will be limited. On this basis, the option performs well in terms of protecting residential amenity. However, it would score negatively against objective 3 and 9.
- 10.2 Significantly, the draft SPD now requires the separation distances to be met, or planning permission will be refused, unless the exception criteria are met. This will therefore, have a more significant impact (both positive and negative) than the previously assessed options.

11. Geographical scale

- 11.1 The majority of impacts are at a local and borough wide level. In the longer term, a ban on large scale wind turbines could impact on national climate change objectives.

12. Cumulative, synergistic and secondary effects

- 12.1 The SA has identified a number of secondary impacts. The most significant of these relates to the impact of restricting wind turbines greater than 80 metres in height. Although this would achieve the aim of protecting residential amenity, it could lead to secondary effects arising from the failure to encourage renewable energy sources, particularly impacts on climate change and the secondary effects on the natural and built environment. While the capacity for Milton Keynes to contribute towards national climate change objectives is limited, in combination with other local authorities, the cumulative contribution to climate change objectives could be significant.

13. Mitigation

- 13.1 A suitable balance needs to be reached between stated objectives of promoting wind turbine development on the one hand, and protecting residential amenity on the other. The current draft SPD (January 2012) places a greater emphasis on protecting residential amenity. If that is considered less significant than other objectives then an altered approach could be taken in the final SPD proposed for adoption.

14. Uncertainties and Risks

- 14.1 There are a number of uncertainties and risks associated with the appraisal. The scope of the SPD meant that the differences between the options could be considered relatively minor which made assessment of the differences and the effects more difficult. The small increase in the size of the buffers in some cases also made it difficult to appraise the effects, particularly for options 5, 6 and 7. In addition, it is difficult to reflect the specific nature of wind turbine development and their impacts against some of the SA/SEA framework objectives. The assessment acknowledges that it is only possible to determine the actual impacts on a site by site basis or at a level for which data collection is currently unavailable. It should be noted however,

² Smaller wind turbines are those below 80 metres in height and for those below 25 metres in height, the 350 metre separation distance in policy D5 would be relaxed

that the SA/SEA is the high level strategic assessment looking at the likely impacts. Planning applications for wind farms will be subject to Environmental Impact Assessment (EIA) that would identify the specific environmental effects of a proposal.

15. Monitoring

- 15.1 The indicators will be monitored, where data is available, through the Milton Keynes Annual Monitoring Report.

Appendix A: Relevant Plans, Policies, Programmes and Sustainability Objectives

International PPPs

Plan/Programme	Key Relevant Objectives for the Wind Turbines SPD	Implications for the Wind Turbines SPD	Implications for the SEA
European Spatial Development Perspective, 1999	<p>Objectives include:</p> <ul style="list-style-type: none"> – The development of a polycentric and balanced urban system and the strengthening of the relationship between urban and rural areas – The promotion of integrated transport and communications which support integration and the polycentric development of the European Union territory – The development and conservation of the natural and cultural heritage contributing both to the preservation and deepening of regional identities and the maintenance of the natural and cultural diversity of the region 	The SPD should seek to achieve sustainable development that balances urban and rural areas, and to protect and enhance natural and cultural heritage assets, as well as landscapes and townscapes	Ensure that the requirements of the ESDP are reflected in the SEA framework
Renewed EU Sustainable Development Strategy, 2006	<p>Deals in an integrated way with economic, environmental and social issues, with seven key challenges, in:</p> <ul style="list-style-type: none"> – Climate change and clean energy – Conservation and management of natural resources – Public health 	The SPD should include policies that have regard for the challenges set out in the strategy	Ensure the requirements of the EU SDS are reflected in the SA framework
Renewable Energy Directive, 2009	The Directive imposes stretching renewables targets for 2020 across the EU. It requires 15% of energy in the UK to be renewable by 2020.	The SPD should ensure that it does not impose overly restrictive requirements which would reduce the capacity for wind energy development in the Borough.	Ensure that the requirements of the RED are reflected in the SEA framework
EU Directive:	Conserve fauna and flora, and natural habitats of EU	The SPD should seek to avoid locations which	Ensure the requirements

Plan/Programme	Key Relevant Objectives for the Wind Turbines SPD	Implications for the Wind Turbines SPD	Implications for the SEA
Conservation of Habitats and Wild Fauna and Flora (1992/43/EC)	importance. Establish a network of protected areas throughout the community designed to maintain both the distribution and abundance of threatened species and habitats	would impact on sites of international or national importance. Where the MPA allows development that will negatively affect relevant sites, compensatory measures must be provided for.	of the Directive are reflected in the SEA framework
EU Noise Directive (2000/14/EC)	Environmental problem of noise should be mapped strategically. The public should be informed and consulted about noise exposure, its effects and the measures considered to address noise. Noise issues should be addressed through actions plans to reduce noise and maintain environmental noise where it is good.	SPD must consider the possible impacts of noise arising from the location of wind turbines and possible mitigation/reduction measures	Ensure that the requirements of the Directive are reflected in the SEA framework
European Landscape Convention, 2000	Objectives include: <ul style="list-style-type: none"> – The identification and assessment of landscapes, and analysis of landscape change, with the active participation of stakeholders – Setting objectives for landscape quality, with the involvement of the public – The implementation of landscape policies, through the establishment of plans and practical programmes 	A key consideration for the Wind Turbine SPD should be how policies could impact on the landscape of the borough.	Ensure that the requirements of the ELC are reflected in the SA framework

National PPPs

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbines SPD	Implications for the SEA
Securing the Future - UK Government Sustainable Development Strategy, 2005	<p>Aims to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life for future generations.</p> <p>Guiding principles:</p> <ul style="list-style-type: none"> – Living within environmental limits – Using sound science responsibly 	The SPD should have regard to the indicators in the strategy and seek to contribute to the wider sustainable development agenda	Ensure that the requirements of the Sustainable Development Strategy are reflected in the framework
Sustainable Communities: Building for the Future, 2003	<p>Maintain and create sustainable communities that people want to live in, which:</p> <ul style="list-style-type: none"> – safeguard the countryside – enjoy a well-designed and pleasant living and working environment 	Give due consideration to how the SPD can contribute to the objectives of the Sustainable Communities Plan, particularly safeguarding the countryside	Ensure that the sustainability objectives of the Plan are reflected in the SEA
Climate Change Act, 2008	The Act introduces legally binding targets to reduce green house gas emissions by 34% by 2020 and 80% by 2050	The SPD should ensure that it does not impose overly restrictive requirements which would reduce the ability to cut carbon emissions through the installation of renewable energy developments.	Ensure the targets of the Act are reflected in the SEA framework
UK Renewable Energy Road Map, 2011	Provides a delivery “road map” to help the UK achieve its renewable energy targets. Onshore wind is identified as one of the technologies that will play an important part in helping the UK to reach its renewable energy targets.	The SPD should ensure that it does not impose overly restrictive requirements which would reduce the ability to contribute to the UK renewables targets.	Ensure the aim of the document is reflected in the SEA framework
Working with the grain of nature - a biodiversity strategy for England, 2002	Strategy aims to ensure construction, planning, development and regeneration has minimal adverse impacts on biodiversity and enhances it where possible	The SPD should take into account the national biodiversity strategy objectives	Ensure that biodiversity objectives of the Strategy are reflected in the SEA

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbines SPD	Implications for the SEA
UK Biodiversity Action Plan (BAP), 1994	UK BAP's goal is to conserve and enhance biodiversity within the UK and the sustainable use biological resources, through all relevant mechanisms	Wind Turbine SPD should take into account the protection and enhancement of biodiversity	SEA Framework should include a biodiversity objective against which policies must be tested
Draft National Planning Policy Framework, July 2011	<p>Sustainable development is at the heart of the document. One of the core principles is to:</p> <ul style="list-style-type: none"> encourage, rather than restrict, the use of renewable resources (for example, by the development of renewable energy) <p>It also states that the Government's objective is that planning should fully support the transition to a low carbon economy in a changing climate. It states that in order to achieve this objective the planning system should aim to secure, consistent with the Government's published objectives, radical reductions in greenhouse gas emissions, through the appropriate location and layout of new development, and active support for energy efficiency improvements to existing buildings and the delivery of renewable and low-carbon energy infrastructure.</p>	The principles of the draft NPPF should be core to the SPD.	The principles of the draft NPPF should be incorporated into the SEA Framework.
Planning Policy Statement 1 - Delivering Sustainable Development, 2005	Sets out that development plans should create social cohesion and inclusion, protect and enhance the quality of the natural and historic environment, encourage wise use of natural resources, and promote sustainable economic development, in an integrated manner	The SPD should promote the principles of sustainable development set out in PPS1	Ensure SEA framework reflects sustainable development principles and forms a robust base for testing the SPD
Planning Policy Statement 1 Supplement - Planning	Sets out the ways planning, in providing for the new homes, jobs and infrastructure needed by communities, should help shape places with lower carbon emissions	A key consideration of the Wind Turbine SPD will be how it can positively contribute to the aims of the climate change supplement.	Ensure SEA framework reflects the principles of mitigating against

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbines SPD	Implications for the SEA
and Climate Change, 2007	and resilient to the climate change now accepted as inevitable.		climate change.
Planning Policy Statement 7 - Sustainable Development in Rural Areas, 2004	Objectives of PPS7 are to: <ul style="list-style-type: none"> – Raise quality of life and the environment in rural areas 	SPD should ensure that wind turbines do not have a negative effect on the rural environment where possible.	Ensure that the requirements of PPS7 are considered in the development of the SEA framework
Planning Policy Statement 9 - Biodiversity and Geological Conservation, 2005	PPS9 aims to: <ul style="list-style-type: none"> – Promote sustainable development by ensuring biological diversity is conserved and enhanced as an integral part of social, environmental and economic development – Conserve, enhance and restore the diversity of England's wildlife and geology – Contribute to rural renewal and urban renaissance 	The SPD should aim to maintain, enhance and restore, or add to, biodiversity and geological conservation.	Ensure SEA Framework includes objectives to protect and, where possible, enhance biodiversity and geodiversity
Planning Policy Statement 5: Planning for the Historic Environment, 2010	The Government's objectives for planning for the historic environment are: <ul style="list-style-type: none"> – To apply the principles of sustainable development to proposals involving the historic environment – To conserve, and where appropriate, enhance England's heritage assets – To contribute to our knowledge and understanding of our past. 	SPD should take into account the policies of PPS5 on the Historic Environment, and ensure that the protection and where possible, enhancement, of heritage assets is considered when devising guidance for wind turbines.	Ensure that the requirements of PPS5 are considered in the development of the SA framework.
Planning Policy Statement 12: Local Spatial Planning	Sets out what the key ingredients of local spatial plans are and the key government policies on how they should be prepared.	PPS12 should be taken into account when preparing the SPD.	PPS12 should be taken into account when preparing the SEA.
Planning Policy Guidance note 17 -	Encourages the protection, enhancement and creation of open space and areas for sport and recreation.	Wind turbine proposals could impact on the accessibility of areas of publicly accessible	Ensure that the requirements of PPG17

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbines SPD	Implications for the SEA
Planning for open space, sport and recreation, 2002		open space and multi-functional green infrastructure	are considered in the development of the SEA framework
Planning Policy Statement 22 – Renewable Energy, 2004	<p>The aim is to promote positive planning that facilitates renewable energy development. The most relevant of the document’s key principles which local authorities must adhere to are:</p> <ul style="list-style-type: none"> • Renewable energy developments should be capable of being accommodated throughout England in locations where the technology is viable and environmental, economic, and social impacts can be addressed satisfactorily • local development documents should contain policies designed to promote and encourage, rather than restrict, the development of renewable energy resources • planning authorities should set out the criteria that will be applied in assessing applications for planning permission for renewable energy projects • wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations that should be given significant weight 	The principles of PPS22 should be core to the SPD.	Ensure the SEA framework incorporates the objectives and principles of PPS22.
Planning Policy Guidance note 24 - Planning and Noise, 1994	Development involving noisy activities should, where practicable, be sited away from noise-sensitive land uses. The impact of noise should be minimised without placing unreasonable restrictions on development	Noise levels will be a consideration for the SPD in determining appropriate separation distances.	Noise needs to be reflected in the SEA Framework
Planning Policy	Seeks to ensure that flood risk is taken into account at all	SPD should have regard to issues of flooding.	SEA Framework should

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbines SPD	Implications for the SEA
Statement 25 - Development and Flood Risk, 2006	stages of the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk		include objective to reduce risk of flooding.

Regional PPPs

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbine SPD	Implications for the SEA
Regional Spatial Strategy for the South East (South East Plan), 2009	Main objective is to bring about a sustained improvement in the quality of life in the south east, in terms of housing and economic development, improved environmental management and resource use, and reduced levels of social exclusion. The plan aims to concentrate growth in established urban areas, helping to create sustainable communities.	SPD should follow the framework set out by the RSS although RSS is to be revoked.	SA to have regard to RSS
Integrated Regional Framework - A better quality of life in the South East, 2004	Key aims of the framework include: <ul style="list-style-type: none"> – enhancing the region’s biodiversity – managing and mitigating the likely impacts of climate change such as increases in flooding – improving overall levels of health of people living in the region – maintaining and improving the overall quality of the environment, including biodiversity and important landscapes 	The SPD should include policies to help deliver the relevant aims of the IRF, specifically related to biodiversity, climate change, flooding, health, and landscape character/quality.	SEA framework must ensure reflect the key messages.
South East Biodiversity Strategy, 2009	The strategy aims to: <ul style="list-style-type: none"> – Be a clear, coherent and inspiring vision for the South East – Provide a framework for the delivery of biodiversity targets that guide and support all those who have an impact on biodiversity in the region – Embed a landscape scale approach to restoring whole ecosystems in the working practices and policies of all partners – Create the space needed for wildlife to respond to 	The SEBS identifies four BOAs wholly or partially within Milton Keynes (Ouse Valley, Greensand Ridge, Yardley Chase and Whaddon Chase). The wind turbine document should have regard to biodiversity and the 4 BOA in devising guidance on locations for wind turbines	The SEA framework should reflect measures to protect and enhance biodiversity and the Biodiversity Opportunity Areas.

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbine SPD	Implications for the SEA
	<p>climate change</p> <ul style="list-style-type: none"> – Enable all organisations in the South East to support and improve biodiversity across the region – Be a core element within the strategies and delivery plans of organisations across the South East region <p>A key element of the strategy is Biodiversity Opportunity Areas and SMART targets for BAP habitats and species</p>		
<p>South East Green Infrastructure Framework, 2009</p>	<p>The Framework seeks to establish green infrastructure as an integral and essential component of sustainable communities, develop a common understanding of the role and importance of green infrastructure and provide detailed guidance on how green infrastructure can be delivered through the planning system and local partnerships, including securing funding for its creation and long term maintenance.</p>	<p>The Wind Turbine SPD needs to consider implications of the location of development for the provision of green infrastructure, particularly surrounding issues of accessibility and recreation.</p>	<p>SEA framework should ensure that the impact on green infrastructure functions is fully assessed</p>

Local PPPs

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbine SPD	Implications for the SEA
<p>Milton Keynes Core Strategy 2006-2026 (submission)</p>	<p>The Milton Keynes Core Strategy sets out the vision, objectives and polices for the spatial development of the borough up to 2026. Key objectives relevant to the are:</p> <p>CS Obj 10: To mitigate the Borough’s impact on climate change and reduce CO2 emissions through:</p> <ul style="list-style-type: none"> • Implementing higher than national requirements (18) for sustainable homes and buildings • Locating development away from areas of flood risk(19) • Promoting community energy networks and strategic renewable energy developments • Reducing waste generation and increasing the amount of recycling • Sustainable transport initiatives <p>CS Obj 12 To protect, maintain and enhance the important features, character and assets of the New Town and the towns and villages throughout the Borough</p> <p>CS Obj 13 To encourage healthy lifestyles with the provision of recreation facilities and biodiversity by enhancing the linear park network and extending it into new developments while conserving and protecting key landscapes and important habitats</p> <p>Policy CS 15: ‘Community Energy Networks and Large</p>	<p>The SPD should be in conformity with the policies and objectives in Core Strategy.</p> <p>The SPD will need to have regard to the objective of ‘Promoting community energy networks and strategic renewable energy developments’ and Policies CS12, CS13 and CS15.</p>	<p>The SA framework should ensure compatibility with the Core Strategy objectives related to economic, environmental and social sustainability.</p>

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbine SPD	Implications for the SEA
	<p>Scale Renewable Energy Schemes'</p> <p>The Council wishes to promote the use of renewable energy schemes where it can be demonstrated that there will not be any negative social, economic, or environmental results from the scheme.</p>		
<p>Milton Keynes Local Plan (adopted 2005)</p>	<p>The Local Plan sets out what type of development will be allowed in specific locations and policies that allow development proposals to be assessed. Key aims are:</p> <ul style="list-style-type: none"> – Protect and enhance important wildlife habitats – Create new habitats to improve biodiversity – Conserve water supplies and natural water levels – Reduce land contamination – Protect the best and most versatile farmland and minimise the amount of greenfield development – Reduce noise and light pollution – Protect and enhance important archaeological and geological sites, listed buildings and conservation areas <p>Policy D5 of the local plan states: Planning Permission will be granted for proposals to develop renewable energy resources unless there would be:</p> <ul style="list-style-type: none"> i) significant harm to the amenity of residential areas, due to noise, traffic, pollution or odour ii) significant harm to wildlife species or habitat 	<p>Ensure that the Wind Turbine SPD supports the relevant aims and objectives of the Adopted Local Plan. The SPD must reflect the existing Local Plan policy D5.</p>	<p>The SEA framework should ensure compatibility with the Local Plan aims related to economic, environmental and social sustainability.</p>

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbine SPD	Implications for the SEA
	<p>iii) unacceptable visual impact on the landscape</p> <p>Wind Turbines should in addition avoid unacceptable shadow flicker and electromagnetic interference and be sited at least 250 metres from any dwellings.</p>		
Bucks and Milton Keynes Rural Strategy 2008-2012	Sets out an action plan and key priority areas for rural Bucks and MK. Related to the SPD, these are: ensure appropriate management and conservation of the natural environment and; promote sustainable access and enjoyment of the countryside.	Ensure that the objectives of the rural strategy are incorporated into the SPD	Ensure that the sustainable outcomes of the rural strategy are reflected in the SEA framework.
Bucks and Milton Keynes Biodiversity Action Plan 2000-2010 (2008 revision)	Provides a framework for action to conserve and enhance MK's and Bucks Biodiversity. The Bucks and MK Biodiversity Partnership has identified Biodiversity Opportunity Areas (BOAs) as a tool to prioritise implementation of the BAP. In MK these include the Ouse Valley and the Greensand Ridge. These BOAs are recognised in the SE England Biodiversity Strategy which supports the SE Plan	Ensure that the SPD considers any effects on biodiversity and the BOAs when determining appropriate locations for wind turbines.	The framework should reflect measures to protect and enhance biodiversity.
Milton Keynes Strategic Flood Risk Assessment 2008	The purpose of the SFRA is to assess all forms of flood risk taking into account future climate change predictions, and use this to locate future development primarily in low flood risk areas.	The SPD should take into account areas of flood risk when determining separation distances.	The SEA framework should acknowledge flooding as an issue through its objectives.
Milton Keynes Draft Landscape Character Assessment Report	This document assesses the landscape character of Milton Keynes Borough and from there identifies the areas of important character to be used to inform decisions on development.	The SPD should seek to minimise the impacts of wind turbines on the landscape.	The SEA framework should include the preservation and enhancement of landscape character.
Milton Keynes Draft	The Green Infrastructure Plan should help to ensure a	The SPD should consider the accessibility of	The SEA framework

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbine SPD	Implications for the SEA
Green Infrastructure Plan	strategically planned, appropriately resourced and managed network of accessible, high quality, sustainable and linked open spaces for existing and future populations.	open space and impacts on green infrastructure and biodiversity in general.	should look to protect and enhance existing areas of green infrastructure.
Parks Trust: A Strategic Plan for the Green Estate	The Parks Trust manages approximately 1800 hectares of open space in Milton Keynes. In relation to the Wind Turbine SPD the strategy seeks to protect this land from inappropriate development, while increasing access, biodiversity and promoting positive management.	The SPD should ensure that its guidance does not conflict with those of the Parks Trust.	The SEA framework should look to protect the quality of and access to areas of existing open space.
Buckinghamshire and Milton Keynes Historic Landscape Characterisation (HLC) Study, 2006	The HLC study and accompanying GIS dataset provides an evidence-based interpretation of historic landscape character including sensitivity of varying landscape types and comprises a useful baseline from which decisions on development can be evaluated against historic landscape criteria	The SPD should seek to minimise impacts of wind turbines on historic landscape character	The SA framework should seek to preserve and enhance historic landscape character.
Low Carbon Living Strategy and Action Plan, 2010	The strategy aims to reduce greenhouse gas emissions locally to help tackle global climate change by: <ul style="list-style-type: none"> • Integrating sustainability and carbon reduction into the planning and delivery of the Council's aims • Reducing the authority's carbon footprint • Demonstrating community leadership in tackling climate change and sustainability issues, including reducing the overall carbon footprint of the Borough. The strategy contains a target to cut carbon emissions by 40% per person by 2020 (compared with 2005). Wind turbines are listed as one of the contributors to achieving this target.	The SPD should take into account the part wind turbines will play in achieving the emissions target.	Ensure the aims and targets of the Strategy and Action Plan are reflected in the SEA framework.
Milton Keynes	This strategy sets out the values that will guide the	The SPD should take into account the aims of	The SEA framework

Plan/Programme	Key Relevant Objectives	Implications for the Wind Turbine SPD	Implications for the SEA
Community Strategy 2004-2034, 2008 refresh	growth of Milton Keynes. Its aim is to create desirable, fun, affordable, safe and accessible places within Milton Keynes. The most relevant of the four key action areas is as follows: Reinventing our city, places and space – delivering high quality environments for the people of our city and neighbourhoods.	the Community Strategy.	should take into account the aims of the Community Strategy.

Appendix B: Relevant Baseline Data

SEA Topic	Indicator	MK Data	Comparative Data/Targets	Issue/Trend	Source
Population	MK Population	228,400 (June 2007, estimate) 231,400 (June 2008, estimate) 235,250 (June 2009, estimate) 240,990 (June 2010, estimate)	None	The population of MK increased 1.8% from 2009.	MKC Population Bulletin
Human Health	% of people describing their health as 'good'	72% in 2001	England – 69% South East – 72%	No trend possible. MK is currently in line with the south east average and performs better than the south east region.	Census 2001
Human Health	% of people describing their health as 'not good'	7% in 2001	England – 9% South East – 7%	No trend possible. MK is currently in line with the south east average and performs better than the south east region.	Census 2001
Soil, Landscape, Flora and Fauna.	Agricultural Land Classification	There is no grade 1 agricultural land in Milton Keynes Borough. The vast majority of non-urban land is grade 3 although there are areas of grade 2 in the north of the borough, mostly along the course of the River Great Ouse.	No comparable data	No identifiable trend	MKC – Intelligence Observatory 2011
Flora, fauna and biodiversity	% SSSI in favourable condition	<ul style="list-style-type: none"> • 2 SSSIs wholly within Milton Keynes. These are Howe Park Wood and Oxley Mead and both are in a favourable condition. • Part of the Yardley Chase SSSI lies within MK Borough, most however is within Northants. Part of 	In 2007 in the South East as a whole 86% of SSSIs are meeting the Natural England target of all SSSIs being in favourable or	No identifiable trend	BMERC 2009

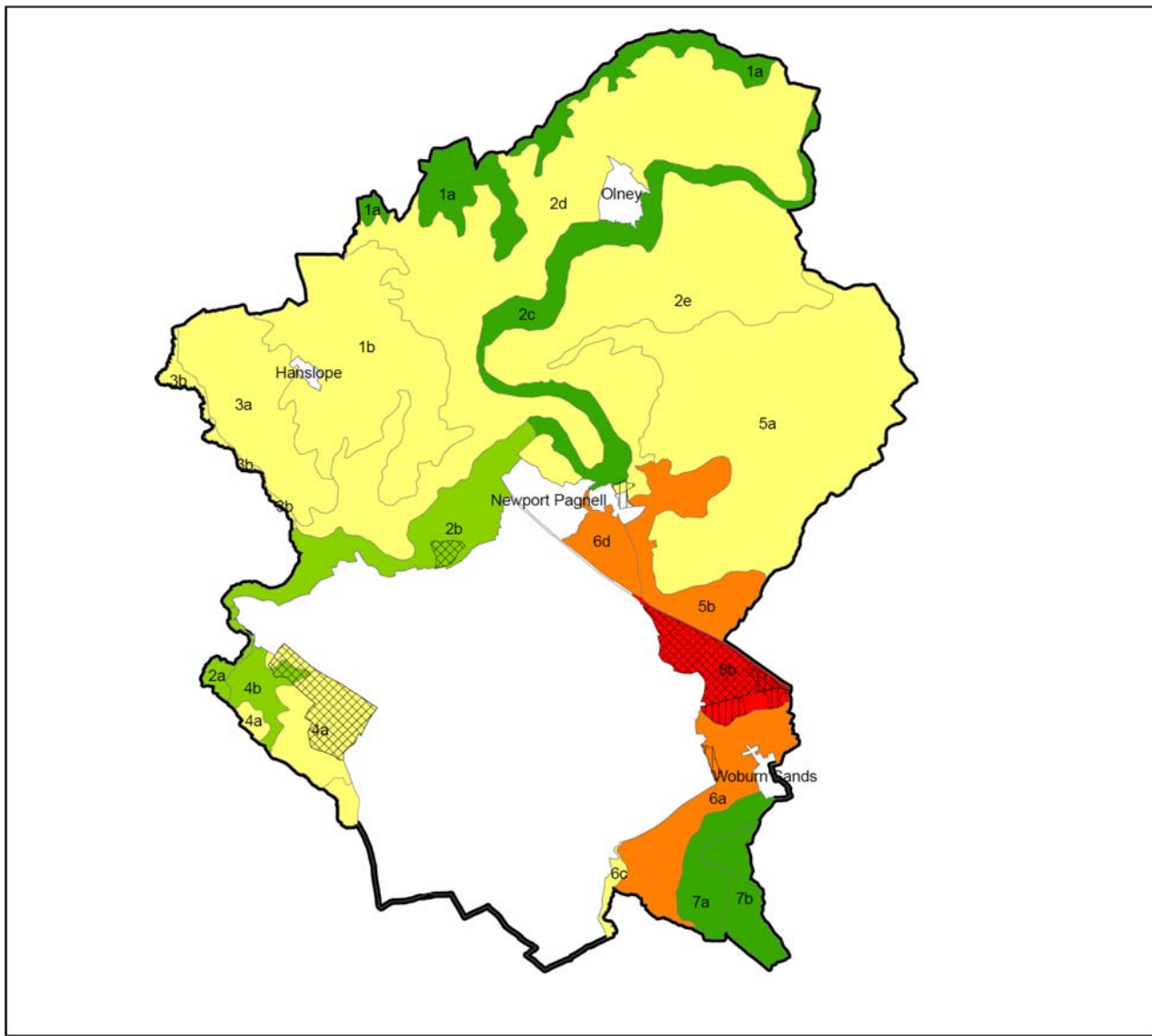
SEA Topic	Indicator	MK Data	Comparative Data/Targets	Issue/Trend	Source																																											
		this SSSI is in favourable position while the rest is in unfavourable recovering.	unfavourable condition																																													
Flora, fauna and biodiversity	Extent of designated sites	<table border="1"> <thead> <tr> <th rowspan="2">Site</th> <th colspan="3">Area (Hectares)</th> </tr> <tr> <th>2008</th> <th>2009</th> <th>2010</th> </tr> </thead> <tbody> <tr> <td>Local Wildlife Sites</td> <td>229</td> <td>230</td> <td>254</td> </tr> <tr> <td>Biological Notification Sites</td> <td>1691</td> <td>1656</td> <td>1599</td> </tr> <tr> <td>Local Nature Reserves</td> <td>34</td> <td>33</td> <td>33</td> </tr> <tr> <td>Local Geological Sites</td> <td>32</td> <td>32</td> <td>32</td> </tr> <tr> <td>MK Railway Corridors</td> <td>712</td> <td>712</td> <td>712</td> </tr> <tr> <td>MK Road Corridors</td> <td>988</td> <td>988</td> <td>988</td> </tr> <tr> <td>MK Wetland Corridors</td> <td>2648</td> <td>2648</td> <td>2648</td> </tr> <tr> <td>MK Woodland Corridors</td> <td>362</td> <td>362</td> <td>362</td> </tr> <tr> <td>Total (excluding wildlife corridors)</td> <td>1986</td> <td>1951</td> <td>1918</td> </tr> </tbody> </table>	Site	Area (Hectares)			2008	2009	2010	Local Wildlife Sites	229	230	254	Biological Notification Sites	1691	1656	1599	Local Nature Reserves	34	33	33	Local Geological Sites	32	32	32	MK Railway Corridors	712	712	712	MK Road Corridors	988	988	988	MK Wetland Corridors	2648	2648	2648	MK Woodland Corridors	362	362	362	Total (excluding wildlife corridors)	1986	1951	1918	No comparable data	The area of Local Wildlife Sites has increased from 230 hectares in 2009 to 254 in 2010. This is as a result of new survey work rather than an underlying change in biodiversity.	AMR 2010/11
Site	Area (Hectares)																																															
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Flora, fauna and biodiversity	Extent of BAP priority habitat	<table border="1"> <thead> <tr> <th rowspan="2">Habitat Type</th> <th colspan="3">Area (hectares)</th> </tr> <tr> <th>2008</th> <th>2009</th> <th>2010</th> </tr> </thead> <tbody> <tr> <td>Floodplain</td> <td></td> <td></td> <td>84</td> </tr> <tr> <td>Grazing Marsh</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Lowland Calcareous Grassland</td> <td>2.76</td> <td>2.76</td> <td>2.8</td> </tr> <tr> <td>Lowland Dry Acid Grassland</td> <td>-</td> <td>3.70</td> <td>2</td> </tr> <tr> <td>Lowland Fens</td> <td>-</td> <td>3.90</td> <td>4</td> </tr> <tr> <td>Lowland Heathland</td> <td>-</td> <td>0.50</td> <td>0.50</td> </tr> <tr> <td>Lowland</td> <td>9.88</td> <td>9.90</td> <td>10</td> </tr> </tbody> </table>	Habitat Type	Area (hectares)			2008	2009	2010	Floodplain			84	Grazing Marsh				Lowland Calcareous Grassland	2.76	2.76	2.8	Lowland Dry Acid Grassland	-	3.70	2	Lowland Fens	-	3.90	4	Lowland Heathland	-	0.50	0.50	Lowland	9.88	9.90	10	1.6% of the MK land area is covered by BAP habitats compared to 2.34% of Bucks CC.	No comparative data due to changes in method of recording.	AMR 2010/11								
Habitat Type	Area (hectares)																																															
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SEA Topic	Indicator	MK Data	Comparative Data/Targets	Issue/Trend	Source																																
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Water	Extent of flood risk SFRA/EA	The Milton Keynes area contains four designated Main Rivers, the Great Ouse, the Ouzel, Water Eaton Brook and Tongwell Brook as well as several small water courses and tributaries. (see Appendix C)	The SFRA provides mapping for the extent of flooding in Milton Keynes.	Milton Keynes has a good record of including measures to mitigate the impact of flooding primarily through blue/green infrastructure. This will need to be continued in future developments.	SFRA																																
Water	Number of applications permitted contrary to EA advice	<ul style="list-style-type: none"> 0 applications permitted contrary to Environment Agency advice. (2008) 0 applications permitted contrary to Environment Agency advice. (2009) 	No comparable data	This is the same as 2008 and 2009 when 0 applications were	AMR 2010/11																																

SEA Topic	Indicator	MK Data	Comparative Data/Targets	Issue/Trend	Source
	relating to flooding	<ul style="list-style-type: none"> 0 applications permitted contrary to Environment Agency advice. (2010) 		permitted contrary to EA advice	
Air	Number of noise complaints	There is currently only one recorded noise complaint in Milton Keynes relating to a wind turbine. This may largely be due to there only one being one wind farm in the Borough and its location away from residential dwellings.	No comparable data	This is an existing data gap. As more wind farms are developed, a more robust baseline situation can be established.	
Air	Number of Air Quality Management Areas (AQMA)	2008 – 1 AQMA 2009 – 1 AQMA 2010 – 1 AQMA	No comparable data	One AQMA was declared in Olney in 2008.	AMR 2010/11
Cultural Heritage	Number of SAMS, registered parks and gardens, conservation areas and listed buildings Listed Buildings	<ul style="list-style-type: none"> 50 scheduled ancient monuments, 3 registered parks and gardens 27 conservation areas over 1,100 listed buildings. (2011) 	No comparable data	No trend	
Cultural Heritage	Number of SAMs at risk	<ul style="list-style-type: none"> 6 SAMs at risk (2011) 1 listed building at risk (2011) 	To reduce the number of SAMs at risk by removing the threats.	No listed buildings were at risk in 2008.	English Heritage, Heritage at Risk Register
Landscape, Flora, fauna and biodiversity.		The Milton Keynes Local Plan has allocated two areas as Areas of Attractive Landscape (AAL). These local AAL designations are the Brickhills AAL in the south east of the Borough and the Ouse Valley AAL, to the north and west of Newport Pagnell (see Appendix C).	To maintain the integrity of the AAL.	No identifiable trend.	MKC
Flora, fauna and biodiversity,	Landscape Character Assessment	The draft Landscape Character Assessment splits the Borough into 7 character types and rates them as 'high' 'moderate/high' 'moderate' moderate/poor' or 'poor'. (see	To maintain the landscape character of the borough.	No identifiable trend.	MKC

SEA Topic	Indicator	MK Data	Comparative Data/Targets	Issue/Trend	Source
Landscape		Appendix C)			
Climatic Factors, Material Assets	Capacity of wind turbines in MK Borough	14 - 21Mw (2010) 14 - 21Mw (2011)	To increase the amount of energy from renewable sources.	2010 saw the first wind farm in Milton Keynes become operational.	MKC (2011)

Appendix C Baseline Mapping: Draft Landscape Character Area Assessment: Quality



Key

- MKC Boundary
- Expansion Areas
- Strategic Reserve

Proposed LCAs - Landscape Quality

- High
- Moderate/High
- Moderate
- Moderate/Poor
- Poor

1. Yardley Ridge
 - a Yardley Chase Fringe
 - b Hanslope Plateau
2. Ouse Valley
 - a Ouse Valley Floor West
 - b Ouse Valley Urban Fringe
 - c Ouse Valley Floor East
 - d Ouse Valley Northern slopes
 - e Ouse Valley Southern slopes
3. Tove Valley
 - a Tove Valley Slopes
 - b Tove Valley Floodplain
4. Shenley Lowlands
 - a Shenley Ridge/Upper Weald
 - b Lower Weald Valley
5. Chicley/Crawley Claylands
6. Clayland Fringes
 - a Southern Clayland Fringe
 - b Broughton Flat Claylands
 - c Ouzel Valley South
 - d Ouzel Valley North
7. Brickhills Greensand Ridge
 - a Brickhills Greensand Slopes
 - b Brickhills Greensand Plateau



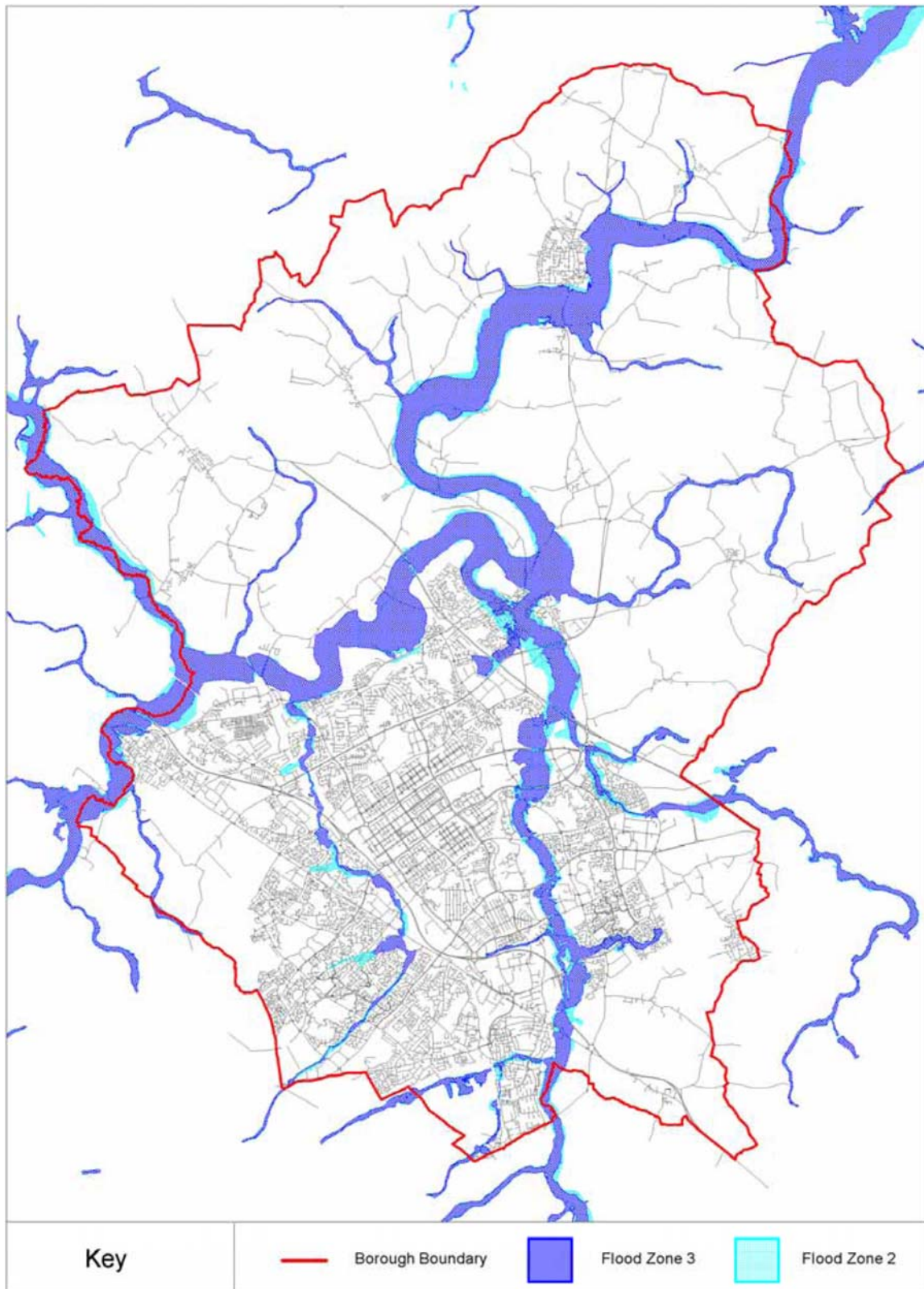
Project: Milton Keynes Local Landscape Designation Study
 Drawing: Draft Landscape Character Areas - Landscape Quality (Based on Strength of Character/Condition)

Dwg No. 05063/07
 Scale 1:100,000
 Date December 2005
 Drawn RS Checked JB

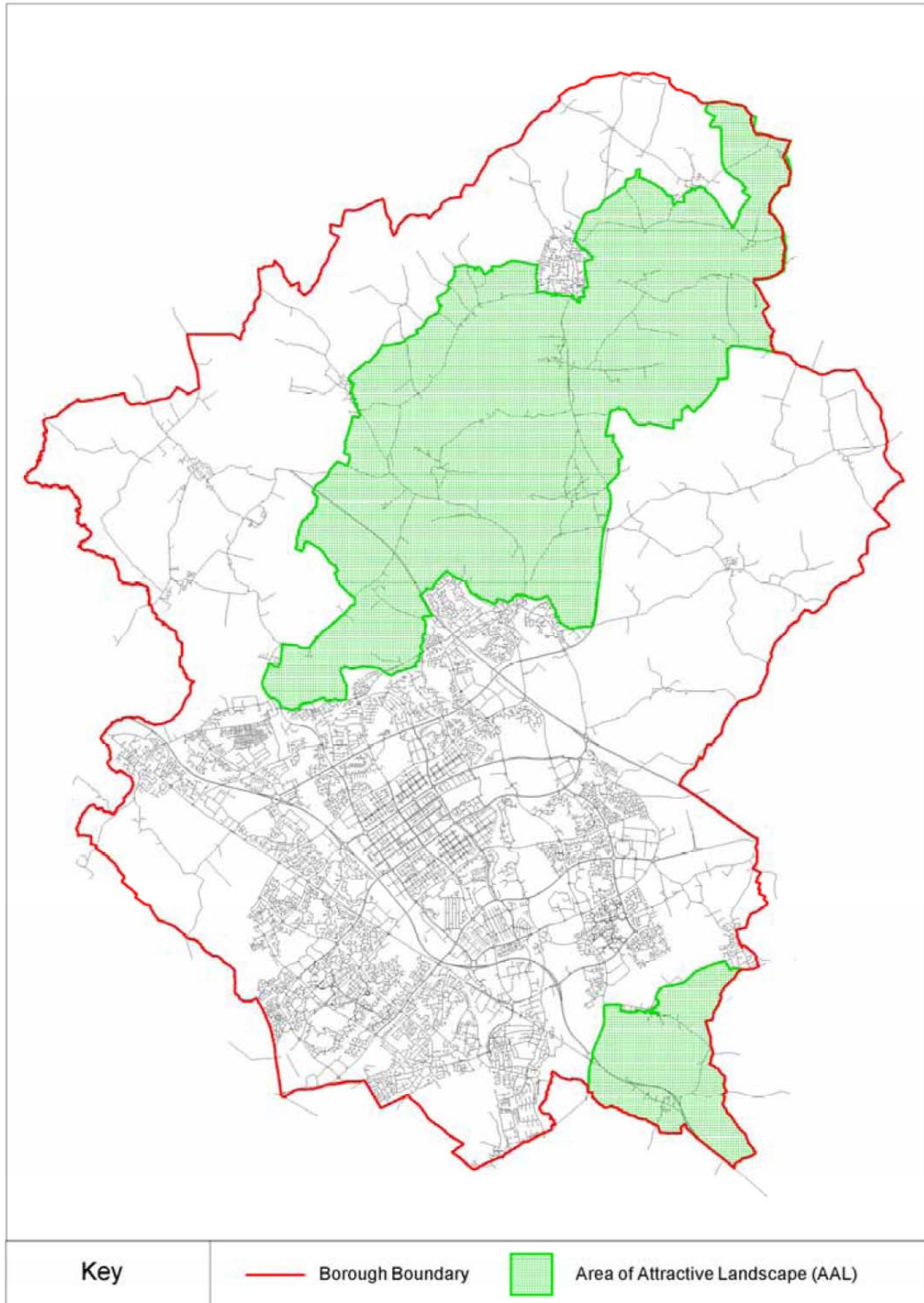


Do not scale off drawing. All dimensions & levels are to be checked on site. Any discrepancies must be reported to the landscape architect immediately.
 ©The Landscape Partnership Ltd.
 Reproduced from the Ordnance Survey map with the permission of the controller of Her Majesty's Stationery Office. Licence Number: 100002205
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Appendix C Baseline Mapping: Strategic Flood Risk Assessment: Flood Zones



Appendix C Baseline Mapping: Local Plan Designation: Areas of Attractive Landscape



Appendix D: Internal SEA Objective Compatibility Assessment

	7. Improve efficiency of land use.	6. Reduce the risk of flooding.	5. Conserve and enhance the Borough's cultural heritage.	4. Conserve and enhance Milton Keynes' biodiversity and landscape character.	3. Encourage the use of renewable sources of energy.	2. Continue to maintain and improve local air quality and limit noise pollution.
1. Improve the health and quality of life of residents.	✓	✓	✓	✓	1	✓
2 Continue to maintain and improve local air quality and limit noise pollution.	✓	✓	✓	✓	✓	
3 Encourage the use of renewable sources of energy.	5	4	3	2		
4 Conserve and enhance Milton Keynes' biodiversity and landscape character.	✓	✓	✓			
5 Conserve and enhance the Borough's cultural heritage.	✓	✓				
6 Reduce the risk of flooding.	✓					

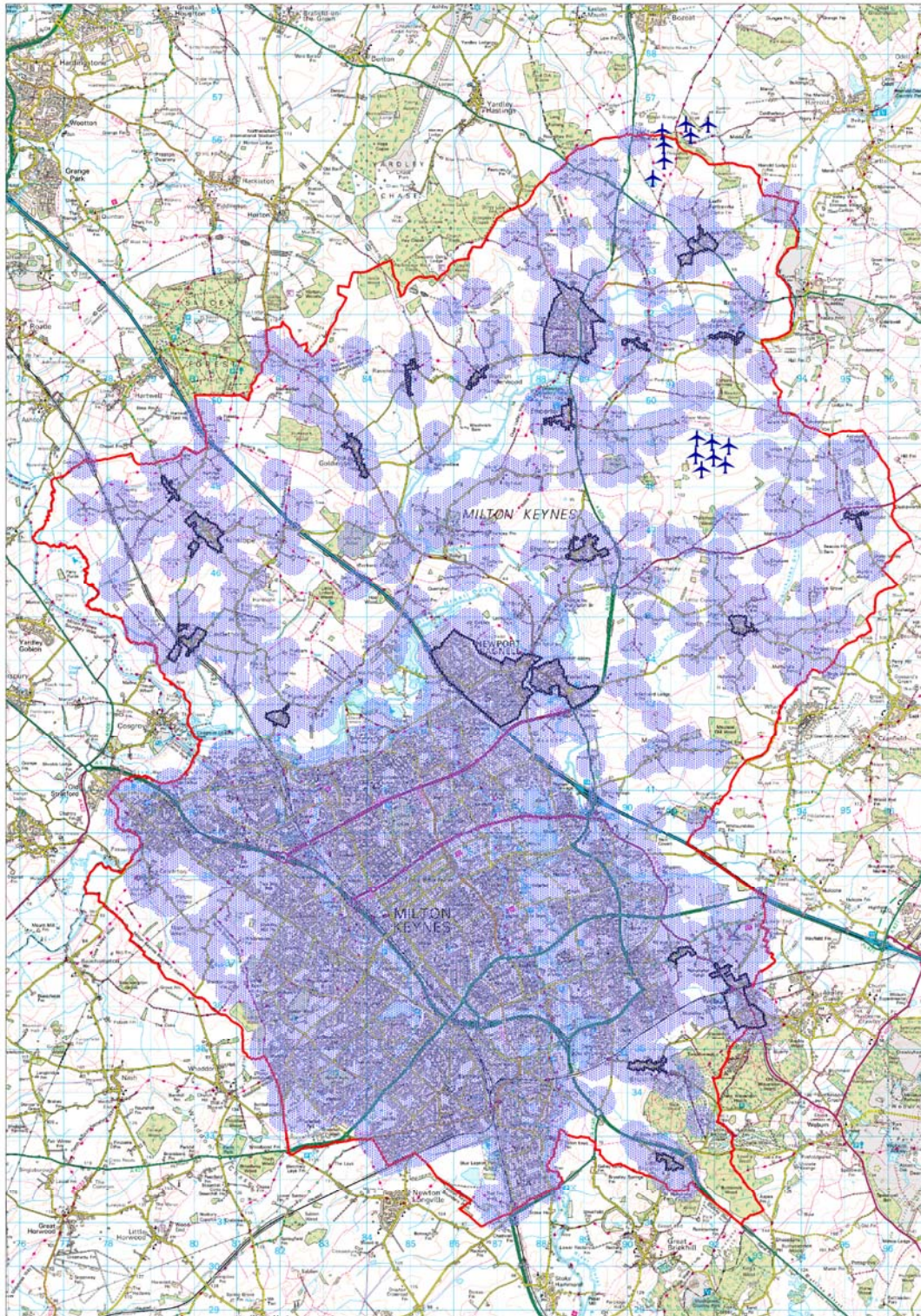
1	There could be potential for health effects arising from wind turbines. At the same time in the longer term, reducing CO2 emissions could have positive impacts
2	Potential for short term harm to biodiversity arising from development. Longer term, positive contribution could arise from reducing our impact on climate change and thereby reducing the impact on biodiversity over a longer time period and a wider area.
3	Potential form harm to the borough's cultural heritage through inappropriate location of wind turbines.
4	Potential positive a negative impact. Wind turbines should avoid areas of flood risk. Longer term they could reduce the impact of climate change on flooding.
5	Large wind turbines will generally require the development of Greenfield land.

Appendix E: Scoping Report Consultation Responses

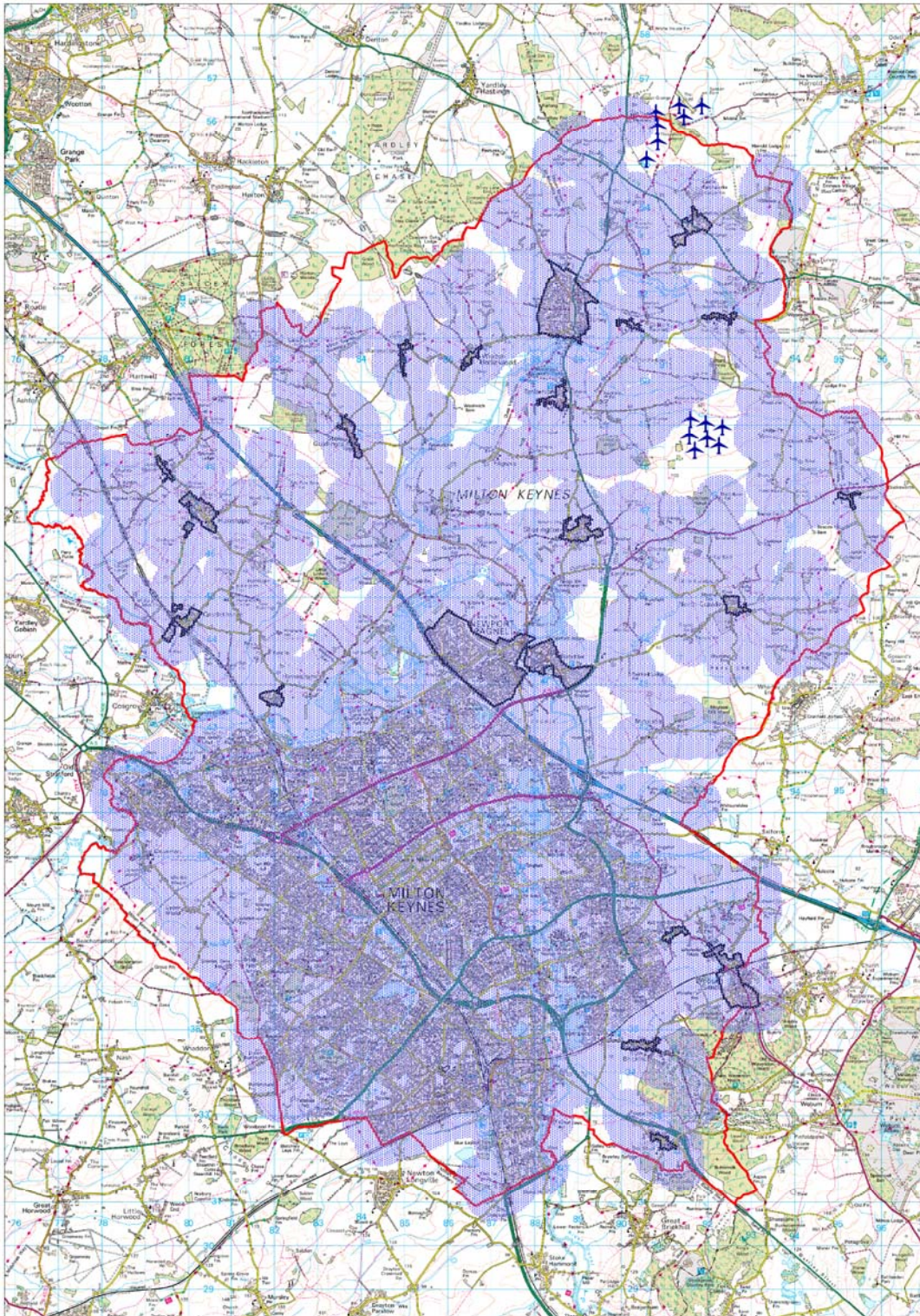
Consultee	Response	Action
Environment Agency	Page 7 - Climatic Factors - We agree that the SPD should seek to maximise the capacity of wind farms in MK. Careful consideration needs to be given as to how the Indicators for the objectives are measured.	Noted. Capacity will be monitored through the Annual Monitoring Report
	Page 7 - Water - We agree with the first point under Objective 6, using the EA planning responses to ensure appropriate development.	Noted
	In terms of the decision making prompt " <i>avoid increasing the risk of surface water flooding for infrastructure</i> " - we do not consider this appropriate. If it refers to the need to reduce surface water flood risk from the Wind Turbine developments, we would not regard this as an issue due to the lack of impermeable surfacing associated with turbine developments. If it relates to locating the wind turbine infrastructure in areas at risk of surface water flooding then we would address this through the planning stage (where surface water flood risk areas are known)	Decision making prompts have been amended. Now distinguish between generally reducing flood risk and locating wind turbines out of areas of flood risk.
	Page 16 - SEA framework should also include an objective to locate any turbines (or particularly their associated infrastructure - such as the transfer stations) in areas not at risk of flooding.	Objective 6 will cover this point. An additional decision making prompt has been added to clarify that it covers the location of wind turbines.
	Pages 21 and 22 - We agree with the inclusion of the MK SFRA 2008 and the Green Infrastructure plan as reference documents to inform the SEA/SPD.	Noted
	Page 26 - Water - In terms of the comparative data / targets - The SFRA should be used as an initial development planning tool. For individual applications the most	Noted

	up-to-date information will be used, whether this is the SFRA or the EA Flood Map (which may contain updated modelling from the 2008 SFRA).	
Natural England	We note that the SEA question “Will the proposed option help to protect sites designated for their biodiversity value?” is probably not the most incisive question to apply in the context of wind turbines. The prime biodiversity risk is the impacts on birds and bats. These species could be affected without affecting any sites designated for their biodiversity value. A better question might be “Will the proposed option have an adverse effect on bat and bird species of biodiversity value?”	Amended the Framework the include reference to bat and bird species. Retained reference to sites as will be an important consideration in location of turbines.
	We also advise that there is a distinction to be made between impact on landscape character and visual impact, the former being the impact on the landscape per se, the latter being the impact as perceived. The decision aiding question “Will the proposed option help protect the landscape character of the borough?” relates to the former, which is not particularly sensitive to, say, where existing dwellings are. You may wish to consider a supplementary question such as “Will the proposed option lead to a negative visual impact?”	Framework amended to reflect distinction between landscape and visual amenity.
	Whilst not directly related to the SEA, we would like to take the opportunity to point out the guidance we have with respect to protected species in general: http://www.naturalengland.org.uk/ourwork/planningtransportlocalgov/spatialplanning/sandingadvice/default.aspx , assessing the effects of onshore wind farms on birds: http://naturalengland.etraderstores.com/NaturalEnglandShop/TIN069 , and Bats and onshore wind turbines: http://naturalengland.etraderstores.com/NaturalEnglandShop/TIN051 . It may be appropriate to reference these guidance documents in the proposed SPD.	Noted.

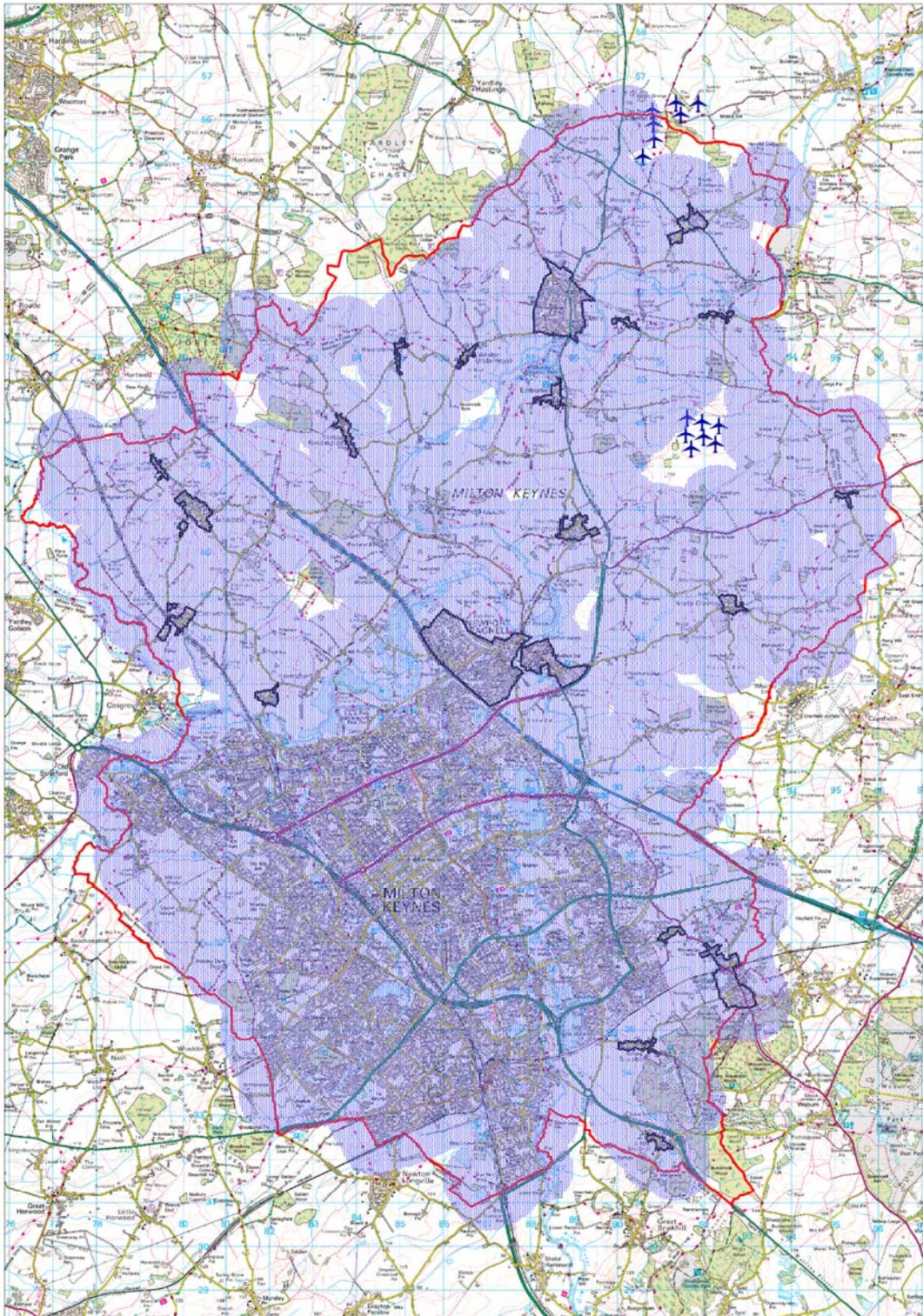
Appendix F: Separation distances
Option 1: 350 metres from dwellings



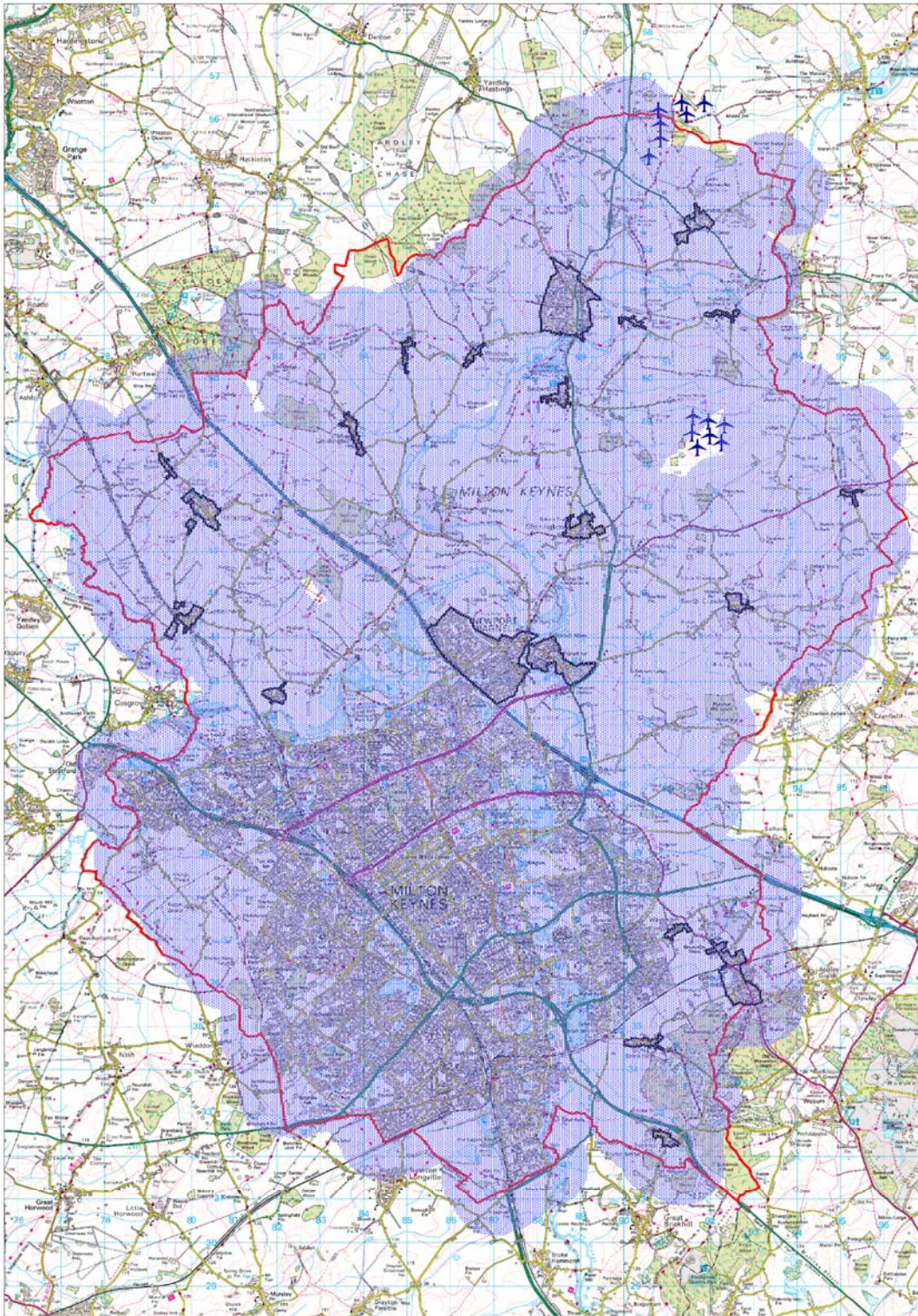
Option 2: 600 metres from dwellings



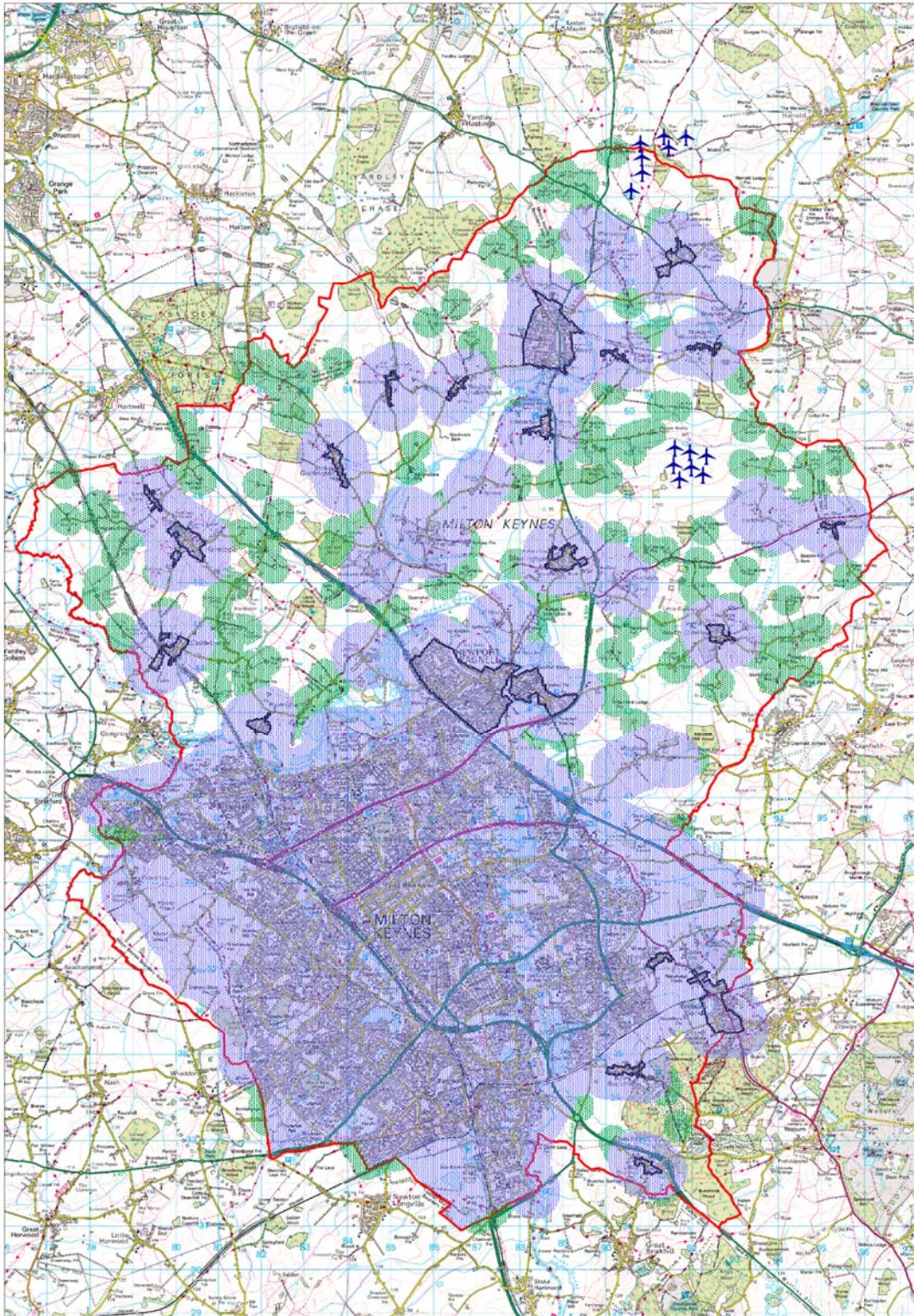
Option 3: 800 metres from dwellings



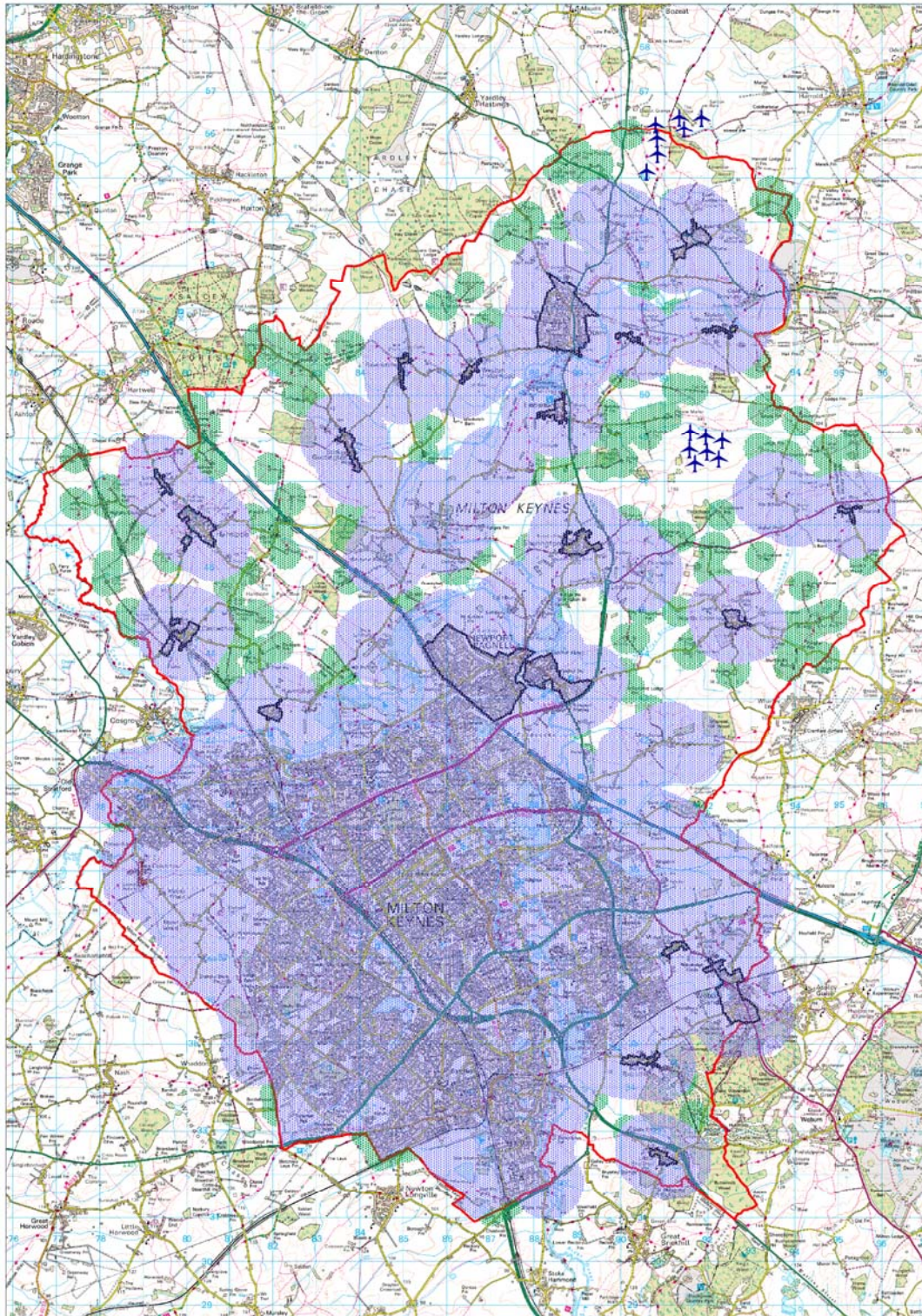
Option 4: 1,000 metres from dwellings



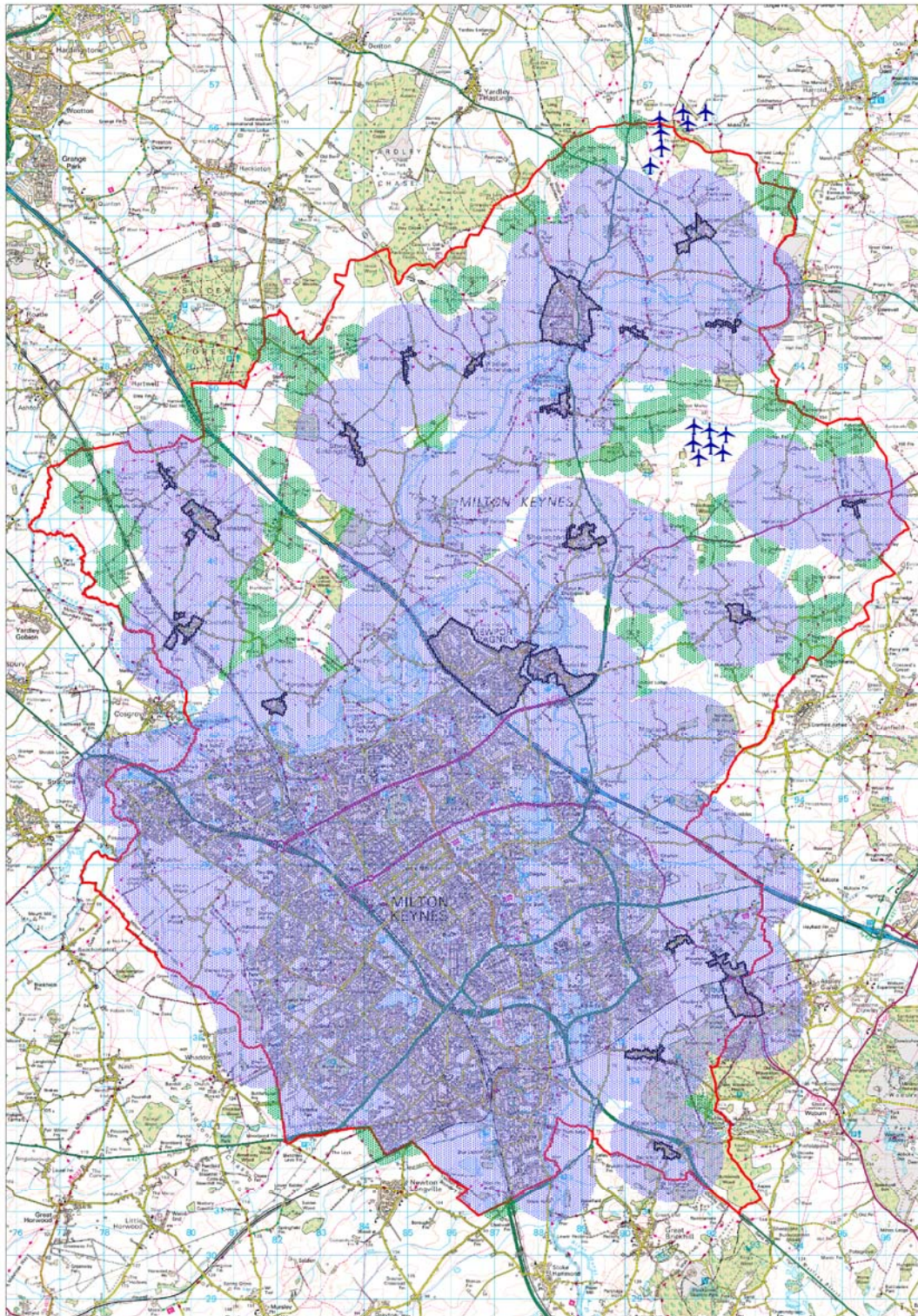
Option 5: 600 metres from settlements, plus 350m from dwellings



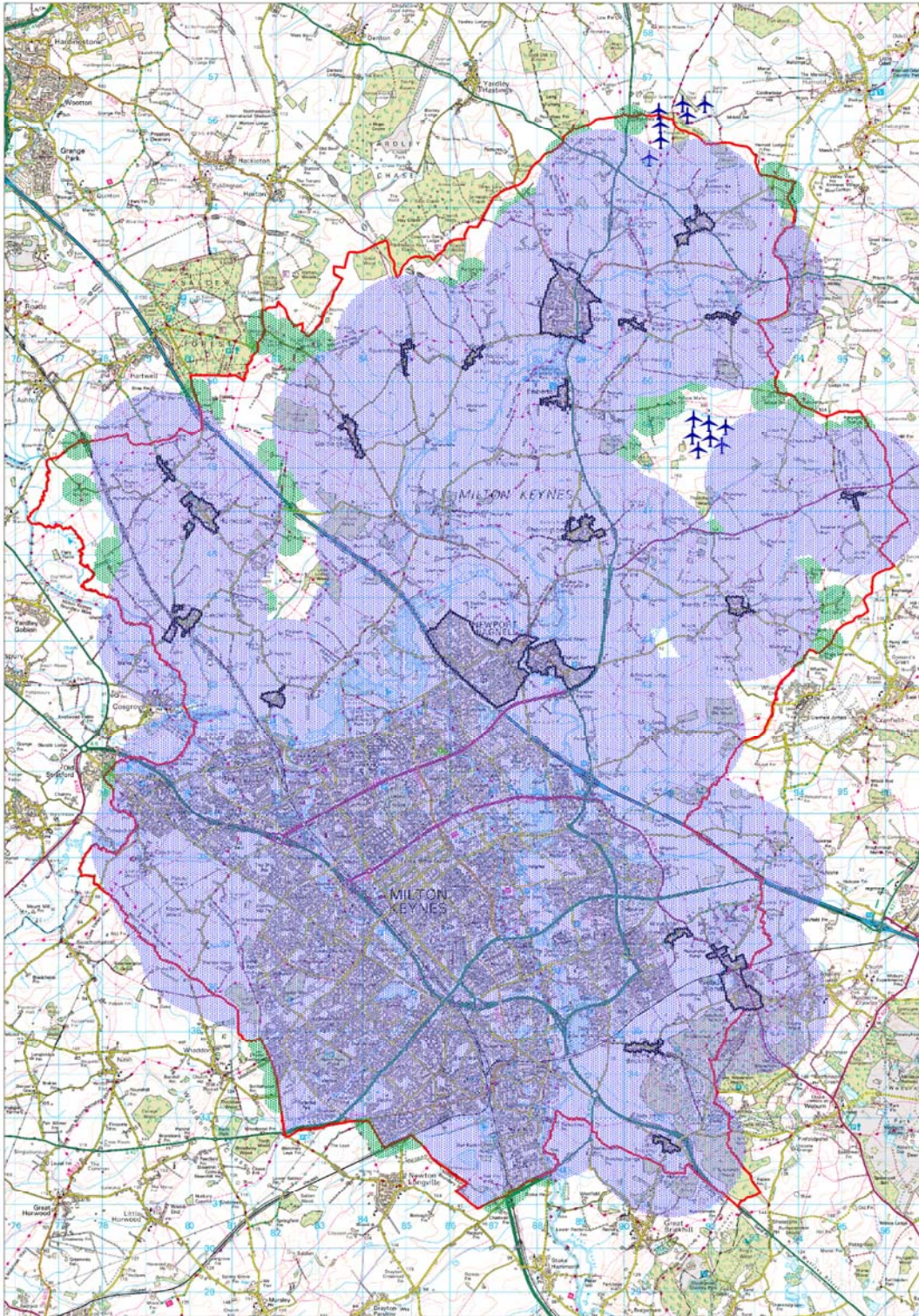
Option 6: 800 metres from dwellings, plus 350m from dwellings



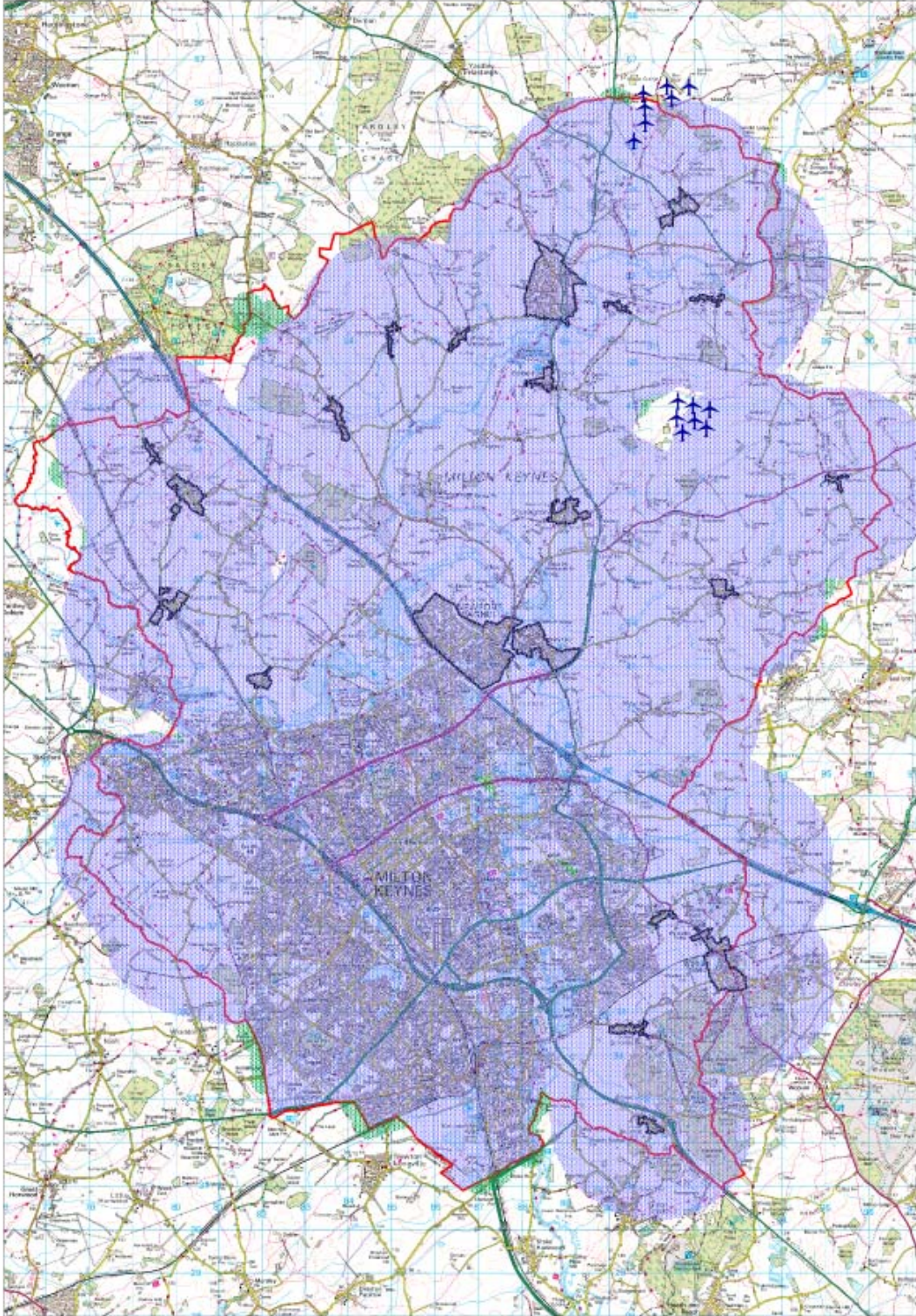
Option 7: 1,000 metres from settlements, plus 350m from dwellings



Option 8: 1,500 metres from settlements, plus 350m from dwellings



Option 9: 2,000 metres from settlements, plus 350m from dwellings



Appendix G: Wind Turbine Residential Separation Distance Options Appraisal

✓	The option will have a predominantly positive effect when assessed against the SA/SEA objective
✘	The option will have a predominantly negative effect when assessed against the SA/SEA objective
✓/✘	There will be both positive and negative effects from the option when assessed against the SA/SEA objective
?	The effects of the option are uncertain/unclear when assessed against the SA/SEA objective
0	The option will have no effect on the SA/SEA objective

SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
The SA/SEA Objectivedecision making prompt	✓	High Medium Low Uncertain	Local Regional National Uncertain	Permanent Temporary Uncertain	Short Medium Long Uncertain	High Medium Low Uncertain	Supporting statement
		✘						
		✓/✘						
		?						
		0						

OPTION 1: Do not adopt the SPD: Maintain the existing 350 metre separation distance from dwellings								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	Medium	Local	Permanent	Short Medium Long	Low	The option will offer some protection to the quality of life of residents
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	Medium	Local	Permanent	Medium	Low	The option should provide some protection from noise pollution from wind farm development.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	✓	Medium	Local	Permanent	Short Medium Long	High	The option leaves some areas of the borough available for possible wind farm development.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	?	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	The effect of the option on biodiversity is uncertain. Sites within a buffer would be protected but there could be increased pressure in areas outside the buffer.
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? ....protect the landscape character of the borough? ....minimise negative visual impacts?	✓	High	Local	Permanent	Short Medium Long	Low	Overall the option will have a positive impact against the objective. It would however leave some areas as possible development sites which could impact on landscape character.

OPTION 1: Do not adopt the SPD: Maintain the existing 350 metre separation distance from dwellings								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option may support the objective, particularly in terms of protecting listed buildings and conservation areas that would normally be located within the buffer areas. The impact on SAMS and archaeological sites is uncertain although existing policy protection would remain.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓	Low	Local Regional National	Permanent	Long	Low	Option could have positive effect. Renewable energy can contribute to reducing impacts of climate change including flooding.
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously developed land?	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.
9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the borough?	✓	Medium	Local	Temporary	Short	High	The option will have a positive impact against the objective, it would leave some areas as possible development sites.

OPTION 2: Adopt the SPD: 600 metre separation distance from dwellings								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The effect is likely to be positive given the distance to dwellings and potentially significant.
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option should provide some protection from noise pollution from wind farm development.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	?	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	The option would identify areas for wind farm development. However, it is uncertain how suitable those sites are and to what extent they will enable suitable development sites to come forward given the limited scope.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	?	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	The effect of the option on biodiversity is uncertain. Sites within a buffer would be protected but there could be increased pressure in areas outside the buffer.
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? ....protect the landscape character of the borough? ....minimise negative visual impacts?	✓	High	Local	Permanent	Short Medium Long	Medium	Overall the option will have a positive impact against the objective. It would however leave some areas as possible development sites which could impact on landscape character.

OPTION 2: Adopt the SPD: 600 metre separation distance from dwellings								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option may support the objective, particularly in terms of protecting listed buildings and conservation areas that would normally be located within the buffer areas. The impact on SAMS and archaeological sites is uncertain although existing policy protection would remain.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓	Low	Local Regional National	Permanent	Long	Low	Option could have minor positive effect. Renewable energy can contribute to reducing impacts of climate change including flooding.
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously developed land?	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.
9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the borough?	?	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	The effect of the option is uncertain. Although opportunities for wind farms are identified, they are limited and it is not certain how it would meet the objective.

OPTION 3: 800 metre separation distance from dwellings								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit wind farm development in the borough. It would therefore have a significant impact against the objective.
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit any wind farm development in the borough. It would therefore have a significant impact against the objective.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	✗	High	Local	Permanent	Short Medium Long	High	As development opportunities would be limited under this option, it would have a significant adverse impact when assessed against the objective.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	✓/✗	Medium	Local Regional National	Permanent	Long	Low	Limiting development is likely to have a positive impact against the objective as sites and species within the borough will be protected. However, long term, moving to renewable energy could help maintain the habitats of species through minimising the effects of climate change and limiting development of wind turbines will not contribute to this objective.
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? .....protect the landscape character of the borough? ....minimise negative	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significant positive impact against the objective. Limiting the majority of the borough from development thereby protecting landscape character and visual amenity.

OPTION 3: 800 metre separation distance from dwellings								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
	visual impacts?							
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significantly positive impact in supporting the objective. Limiting the majority of the borough from development thereby protecting historic assets.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓/✗	High	Local Regional National	Permanent	Long	Low	The option would prevent development in areas of flood risk within the borough. However, the option in the long term would not contribute to minimising the risk of flooding through switching to renewable energy sources and reducing our contribution to climate change.
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously developed land?	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.
9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the borough?	✗	High	Local	Permanent	Short Medium Long	High	The option would have a significant negative impact against the objective as development would be limited under a buffer of this size.

OPTION 4: Adopt the SPD with a separation distance of 1,000 metres from dwellings								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit wind farm development in the borough. It would therefore have a significant impact against the objective.
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit any wind farm development in the borough. It would therefore have a significant impact against the objective.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	✗	High	Local	Permanent	Short Medium Long	High	As development opportunities would be limited under this option, it would have a significant adverse impact when assessed against the objective.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	✓/✗	Medium	Local Regional National	Permanent	Long	Low	Limiting development is likely to have a positive impact against the objective as sites and species within the borough will be protected. However, long term, moving to renewable energy could help maintain the habitats of species through minimising the effects of climate change and limiting development of wind turbines will not contribute to this objective.
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? ....protect the landscape character of the borough? ....minimise negative	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significant positive impact against the objective. Limiting the majority of the borough from development thereby protecting landscape character and visual amenity.

OPTION 4: Adopt the SPD with a separation distance of 1,000 metres from dwellings								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
	visual impacts?							
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significantly positive impact in supporting the objective. Limiting the majority of the borough from development thereby protecting historic assets.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓/✗	High	Local Regional National	Permanent	Long	Low	The option would prevent development in areas of flood risk within the borough. However, the option in the long term would not contribute to minimising the risk of flooding through switching to renewable energy sources and reducing our contribution to climate change.
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously developed land?	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.
9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the borough?	✗	High	Local	Permanent	Short Medium Long	High	The option would have a significant negative impact against the objective as development would be limited under a buffer of this size.

Option 5: Adopt the SPD with a separation distance of 600 metres from settlements								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option will offer some protection to the quality of life of residents
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	Medium	Local	Permanent	Medium	Medium	The option should provide some protection from noise pollution from wind farm development.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option leaves some areas of the borough available for possible wind farm development.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	?	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	The effect of the option on biodiversity is uncertain. Sites within a buffer would be protected but there could be increased pressure in areas outside the buffer.
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? ....protect the landscape character of the borough? ....minimise negative	✓	High	Local	Permanent	Short Medium Long	low	Overall the option will have a positive impact against the objective. It would however leave some areas as possible development sites which could impact on landscape character.

Option 5: Adopt the SPD with a separation distance of 600 metres from settlements

SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
	visual impacts?							
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option may support the objective, particularly in terms of protecting listed buildings and conservation areas that would normally be located within the buffer areas. The impact on SAMS and archaeological sites is uncertain although existing policy protection would remain.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓	Low	Local Regional National	Permanent	Long	low	Option could have positive effect. Renewable energy can contribute to reducing impacts of climate change including flooding
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously developed land?	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.
9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the borough?	✓	Medium	Local	Temporary	Short	Medium	The option will have a positive impact against the objective; it would leave some areas as possible development sites.

Option 6: Adopt the SPD with a separation distance of 800 metres from settlements								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option will offer some protection to the quality of life of residents
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	Medium	Local	Permanent	Medium	Medium	The option should provide some protection from noise pollution from wind farm development.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option leaves some areas of the borough available for possible wind farm development.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	?	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	The effect of the option on biodiversity is uncertain. Sites within a buffer would be protected but there could be increased pressure in areas outside the buffer.
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? ....protect the landscape character of the borough? ....minimise negative visual impacts?	✓	High	Local	Permanent	Short Medium Long	Low	Overall the option will have a positive impact against the objective. It would however leave some areas as possible development sites which could impact on landscape character.

Option 6: Adopt the SPD with a separation distance of 800 metres from settlements								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option may support the objective, particularly in terms of protecting listed buildings and conservation areas that would normally be located within the buffer areas. The impact on SAMS and archaeological sites is uncertain although existing policy protection would remain.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓	Low	Local Regional National	Permanent	Long	Low	Option could have positive effect. Renewable energy can contribute to reducing impacts of climate change including flooding
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously developed land?	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.
9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the borough?	✓	Medium	Local	Temporary	Short	Medium	The option will have a positive impact against the objective, it would leave some areas as possible development sites.

Option 7: Adopt the SPD with a separation distance of 1,000 metres from settlements								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The effect is likely to be positive given the distance to dwellings and potentially significant.
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option should provide some protection from noise pollution from wind farm development.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	?	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	The option would identify some areas for wind farm development. However, it is uncertain how suitable those sites are and to what extent they will enable suitable development sites to come forward given the limited scope.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	?	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	The effect of the option on biodiversity is uncertain. Sites within a buffer would be protected but there could be increased pressure in areas outside the buffer.
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? ....protect the landscape character of the borough? ....minimise negative visual impacts?	✓	High	Local	Permanent	Short Medium Long	Medium	Overall the option will have a positive impact against the objective. It would however leave some areas as possible development sites which could impact on landscape character.

Option 7: Adopt the SPD with a separation distance of 1,000 metres from settlements								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	Medium	Local	Permanent	Short Medium Long	Medium	The option may support the objective, particularly in terms of protecting listed buildings and conservation areas that would normally be located within the buffer areas. The impact on SAMS and archaeological sites is uncertain although existing policy protection would remain.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓	Low	Local Regional National	Permanent	Long	Low	Option could have minor positive effect. Renewable energy can contribute to reducing impacts of climate change including flooding.
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously developed land?	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.
9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the borough?	?	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	The effect of the option is uncertain. Although opportunities for wind farms are identified, they are limited and it is not certain to what extent it would meet the objective.

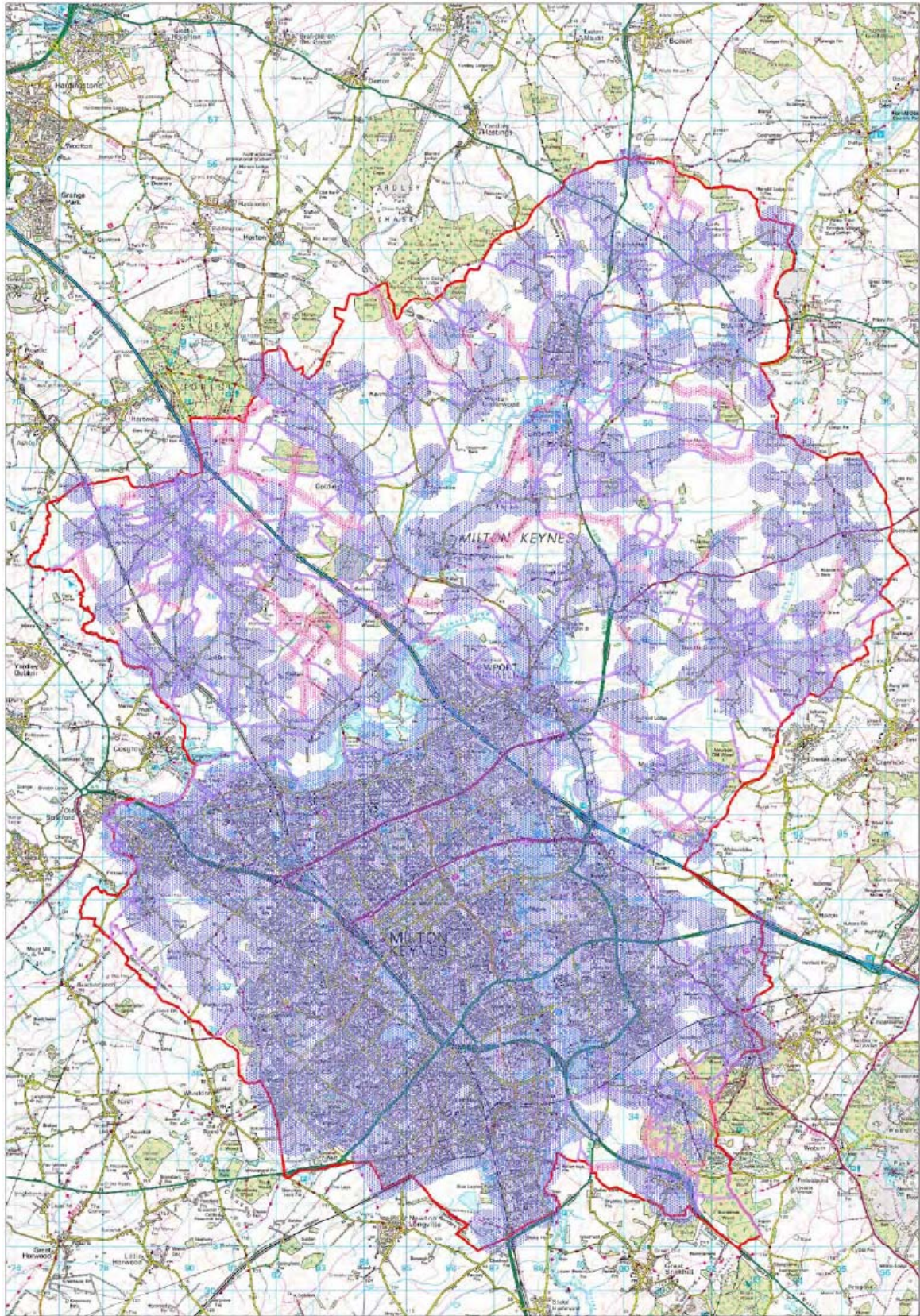
Option 8: Adopt the SPD with a separation distance of 1,500 metres from settlements								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit any industrial scale wind farm development in the borough. It would therefore have a significant impact against the objective.
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit any industrial scale wind farm development in the borough. It would therefore have a significant impact against the objective.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	✗	High	Local	Permanent	Short Medium Long	High	As development opportunities would be limited under this option, it would have a significant adverse impact when assessed against the objective.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	✓/✗	Medium	Local Regional National	Permanent	Long	Low	Limiting development is likely to have a positive impact against the objective as sites and species within the borough will be protected. However, long term, moving to renewable energy could help maintain the habitats of species through minimising the effects of climate change and limiting development of large (80m+) wind turbines will not contribute to this objective.
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? ....protect the landscape character of the borough? ....minimise negative	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significant positive impact against the objective. Limiting the majority of the borough from development thereby protecting landscape character and visual amenity.

Option 8: Adopt the SPD with a separation distance of 1,500 metres from settlements								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
	visual impacts?							
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significantly positive impact in supporting the objective. Limiting the majority of the borough from development thereby protecting historic assets.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓/✗	High	Local Regional National	Permanent	Long	Low	The option would prevent development in areas of flood risk within the borough. However, the option in the long term would not contribute to minimising the risk of flooding through switching to renewable energy sources and reducing our contribution to climate change.
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously developed land?	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.
9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the borough?	✗	High	Local	Permanent	Short Medium Long	High	The option would have a significant negative impact against the objective as development would be limited under a buffer of this size.

Option 9: Adopt the SPD with a separation distance of 2,000 metres from settlements								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit any industrial scale wind farm development in the borough. It would therefore have a significant impact against the objective.
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit any industrial scale wind farm development in the borough. It would therefore have a significant impact against the objective.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	✗	High	Local	Permanent	Short Medium Long	High	As development opportunities would be limited under this option, it would have a significant adverse impact when assessed against the objective.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	✓/✗	Medium	Local Regional National	Permanent	Long	Low	Limiting development is likely to have a positive impact against the objective as sites and species within the borough will be protected. However, long term, moving to renewable energy could help maintain the habitats of species through minimising the effects of climate change and ruling out development of large (80m+) wind turbines will not contribute to this objective.
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? ....protect the landscape character of the borough? ....minimise negative	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significant positive impact against the objective. Limiting the majority of the borough from development thereby protecting landscape character and visual amenity.

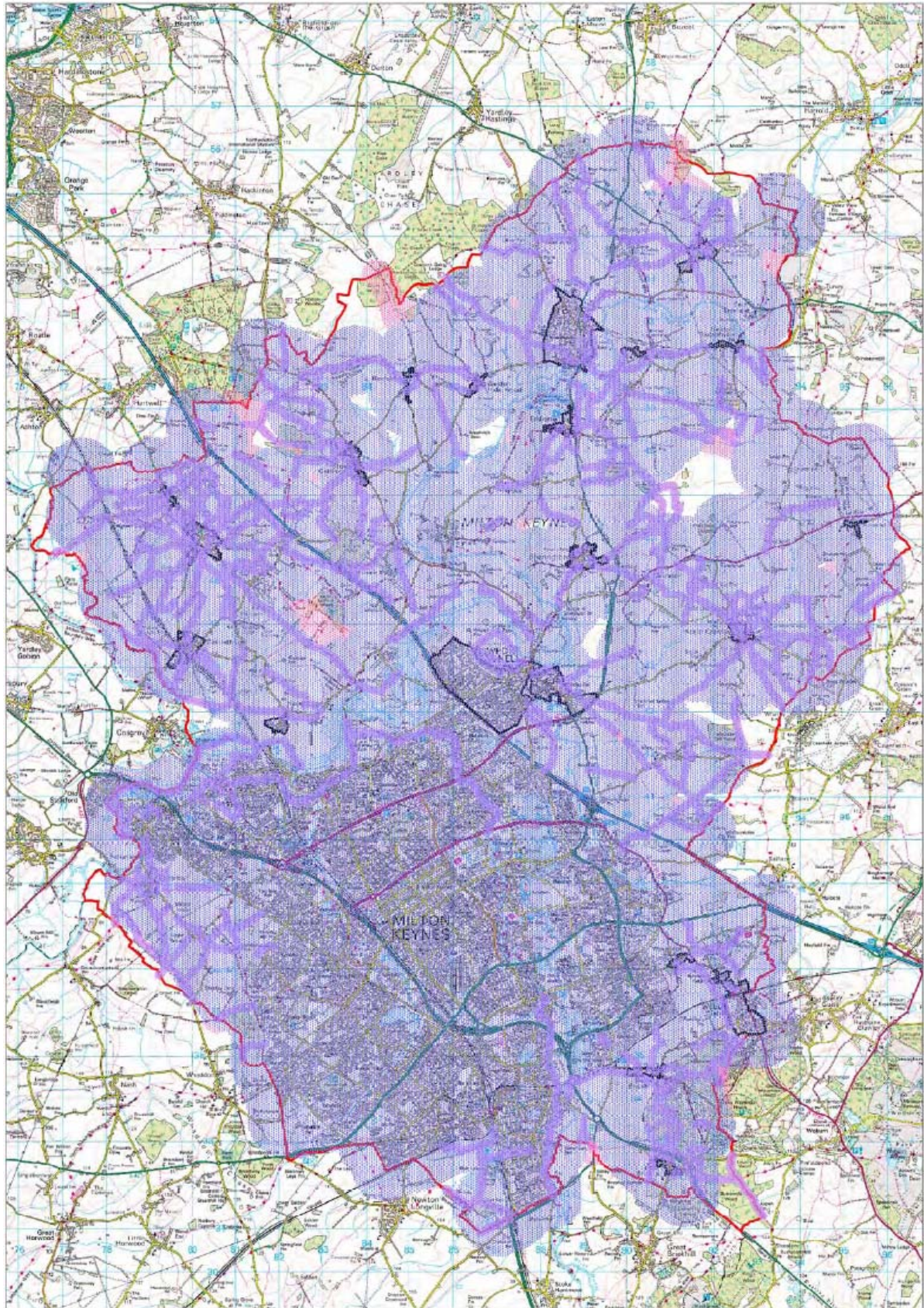
Option 9: Adopt the SPD with a separation distance of 2,000 metres from settlements								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
	visual impacts?							
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significantly positive impact in supporting the objective. Limiting the majority of the borough from development thereby protecting historic assets.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓/✗	High	Local Regional National	Permanent	Long	Low	The option would prevent development in areas of flood risk within the borough. However, the option in the long term would not contribute to minimising the risk of flooding through switching to renewable energy sources and reducing our contribution to climate change.
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously developed land?	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.
9. Encourage the creation of new businesses and ensure high levels of employment.	....promote economic activity in the borough?	✗	High	Local	Permanent	Short Medium Long	High	The option would have a significant negative impact against the objective as development would be limited under a buffer of this size.

**Appendix H: Draft SPD and Emerging Policy: Separation Distances
25 metre wind turbine**



Note: the blue circles are buffers of residential properties, the pink lines are buffers of bridleways, and the purple lines are buffers of footpaths.

80 metre wind turbine



Note: the blue circles are buffers of residential properties, the pink lines are buffers of bridleways, and the purple lines are buffers of footpaths

Appendix I: Draft Wind Turbine and Emerging Policy Appraisal

Draft SPD and Emerging Policy: Sliding Scale and footpath/bridleway restrictions								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
1. Improve the health and quality of life of residents.	....minimise physical or perceived increase in health related issues?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit large scale industrial wind farm development in the borough, and would limit turbines over 25 metres. It would, therefore, have a significant impact against the objective. It does however remove the separation distance for turbines under 25 metres.
2. Continue to maintain and improve local air quality and limit noise pollution.	.... minimise noise complaints? ....lead to an improvement in air quality?	✓	High	Local	Permanent	Short Medium Long	High	This option would limit large scale industrial wind farm development in the borough, and would limit turbines over 25 metres. It would, therefore, have a significant impact against the objective. It does however remove the separation distance for turbines under 25 metres.
3. Encourage the use of renewable sources of energy.	....increase opportunities for renewable energy and wind farms in particular?	✗	High	Local	Permanent	Short Medium Long	Medium	As development opportunities for large scale wind turbines (80m+) would be limited under this option, it would have an adverse impact when assessed against the objective. It does however remove the separation distance for turbines under 25 metres.
4. Conserve and enhance Milton Keynes' biodiversity	....to protect sites designated for their biodiversity value? ....avoid adverse effects on bat and bird species of biodiversity value?	✓/✗	Medium	Local Regional National	Permanent	Long	Low	Limiting large turbines (80m+) is likely to have a positive impact against the objective as sites and species within the borough will be protected although smaller turbines would be possible in those same locations. However, long term, moving to renewable energy could help maintain the habitats of species through minimising the effects of climate change. Limiting development of large wind turbines will not contribute to this objective.

Draft SPD and Emerging Policy: Sliding Scale and footpath/bridleway restrictions								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
5. Conserve and enhance Milton Keynes' landscape character.	....improve access to the countryside? .....protect the landscape character of the borough? ....minimise negative visual impacts?	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significant positive impact against the objective. Limiting the majority of the borough from large scale wind turbine development, thereby protecting landscape character and visual amenity.
6. Conserve and enhance the Borough's cultural heritage.	....protect or enhance archaeological sites, monuments, structures, historic parks, gardens, listed buildings or conservation areas?	✓	High	Local	Permanent	Short Medium Long	High	The option would have a significantly positive impact in supporting the objective. Limiting the majority of the borough for large wind turbines (80m+) would afford greater protection for historic assets.
7. Reduce the risk of flooding.	....avoid locating development in areas of flood risk? ....reduce the risk of flooding?	✓/✗	High	Local Regional National	Permanent	Long	Low	The option would prevent development in areas of flood risk within the borough for large wind turbines (80m+) but would not for smaller turbines. However, the option in the long term would limit large wind turbines and therefore not contribute as effectively to minimising the risk of flooding through switching to renewable energy sources and reducing our contribution to climate change.
8. Improve efficiency of land use.	....minimise or avoid the loss of the most versatile agricultural land? ....prioritise the use of previously	✗	High	Local	Permanent	Short Medium Long	Low	Any separation distance is likely to reduce the possibility of developing on previously developed land given that most PDL will be located in settlements. The buffer does not factor in agricultural land as the focus is on protecting residential amenity.

Draft SPD and Emerging Policy: Sliding Scale and footpath/bridleway restrictions								
SA Objective	Will the option...	Effect	Likelihood	Spatial scale	Permanence	Timing	Significance	Justification
	developed land?							
9. Encourage the creation of new businesses and ensure high levels of employment.promote economic activity in the borough?	✘	High	Local	Permanent	Short Medium Long	High	The option would have a significant negative impact against the objective as development of large (80m+ turbines) would be limited under a buffer of this and to a lesser extent, smaller (25m+) turbines. It does however remove the separation distance for turbines under 25 metres.

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