

OLDHAM METROPOLITAN BOROUGH COUNCIL

LOCAL DEVELOPMENT FRAMEWORK

HABITATS REGULATIONS ASSESSMENT

FOR THE

**RENEWABLE ENERGY
SUPPLEMENTARY PLANNING DOCUMENT**

**Consultation Period:
19 October – 30 November 2007**

OLDHAM METROPOLITAN BOROUGH LOCAL DEVELOPMENT FRAMEWORK

Supplementary Planning Document

The Government has reformed the system of development planning in England. Development Plans are used to control and guide the development and use of land. As part of the reformed system, Oldham Metropolitan Borough Council must prepare a “Local Development Framework”.

The Local Development Framework will be a folder of different documents, including Development Plan Documents, which set out the Council's approach to future development in the Borough.

This document is part of a Supplementary Planning Document (SPD). SPDs are documents that expand on policy outlined in a Development Plan Document or provide more detail on it to help in its implementation. They are not formally part of the statutory Development Plan but are material considerations in determining planning applications.

Supplementary Planning Documents have three supporting documents:

- a Sustainability Appraisal,
- a Habitats Regulations Assessment, and
- an Equalities Impact Assessment.

Members of the public may comment on the Supplementary Planning Document and any of the three supporting documents. A document outlining who has been consulted in the preparation of the Supplementary Planning Document, and issues they raised, is also available alongside these documents. This is called a Consultation Statement.

Members of the public may comment on this document during the six-week public consultation period as indicated on the public notice and comments form.

Comments made on the document cannot be treated as confidential.

If you would like further help in interpreting this document please contact the Strategic Planning and Information section on the following telephone numbers: 0161 770 4139 / 4151.

You can also email the team on spi@oldham.gov.uk.

All documents connected with the Local Development Framework are available on the Council's web site at www.oldham.gov.uk.

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The Council will arrange for this document to be made available in alternative formats including large print, electronically, and community languages if requested, and subject to resources being available. Please ring 0161 770 4139, 4163 or 4151 for further information.

પિનંતી કરવાથી, કાઉન્સિલ દ્વારા આ દસ્તાવેજ વિવિધ રૂપમાં ઉપલબ્ધ કરવામાં આવશે. દા.ત., મોટા છાપેલાં અક્ષરોમાં, સીડી કે ઓડિયો ટેઈપ પર અને વિવિધ સમાજની ભાષાઓનો સમાવેશ થાય છે. કૃપા કરી, વધારે માહિતી માટે, 0161 770 4151, 4163 અથવા 4139 નંબર પર ફોન કરો.

કાઉન્સિલ, এই દલિલટિકે અનુરોધ સાપેક્ષે એવં યદિ ઉપયુક્ત હય-અન્યાન્ય ભાવે પાઠ્યાર વ્યવસ્થા કરવે, યાર અસ્તુર્બુક્ત હલ વડુ અક્ષરે, ઈલેક્ટ્રોનિકભાવે એવં કમ્પ્યુટરિયલ વિવિધ ભાષાય. દયા કરે આરં બિસ્તારિત તથેર અન્ય ટેલિફોન કરન 0161 770 4151, 4163 અથવા 4139 એઈ નમ્બરગુલોતે.

اگر مانگ ہوئی اور مناسب ہو تو کونسل اس دستاویز کو موٹی لکھائی، ٹیپ یا سی ڈی وغیرہ اور کمپیوٹی کی زبانوں میں بھی فراہم کرنے کا انتظام کرے گی۔ مزید معلومات کیلئے 0161 770 4151 یا 0161 770 4163 یا 0161 770 4139 پر فون کریں۔

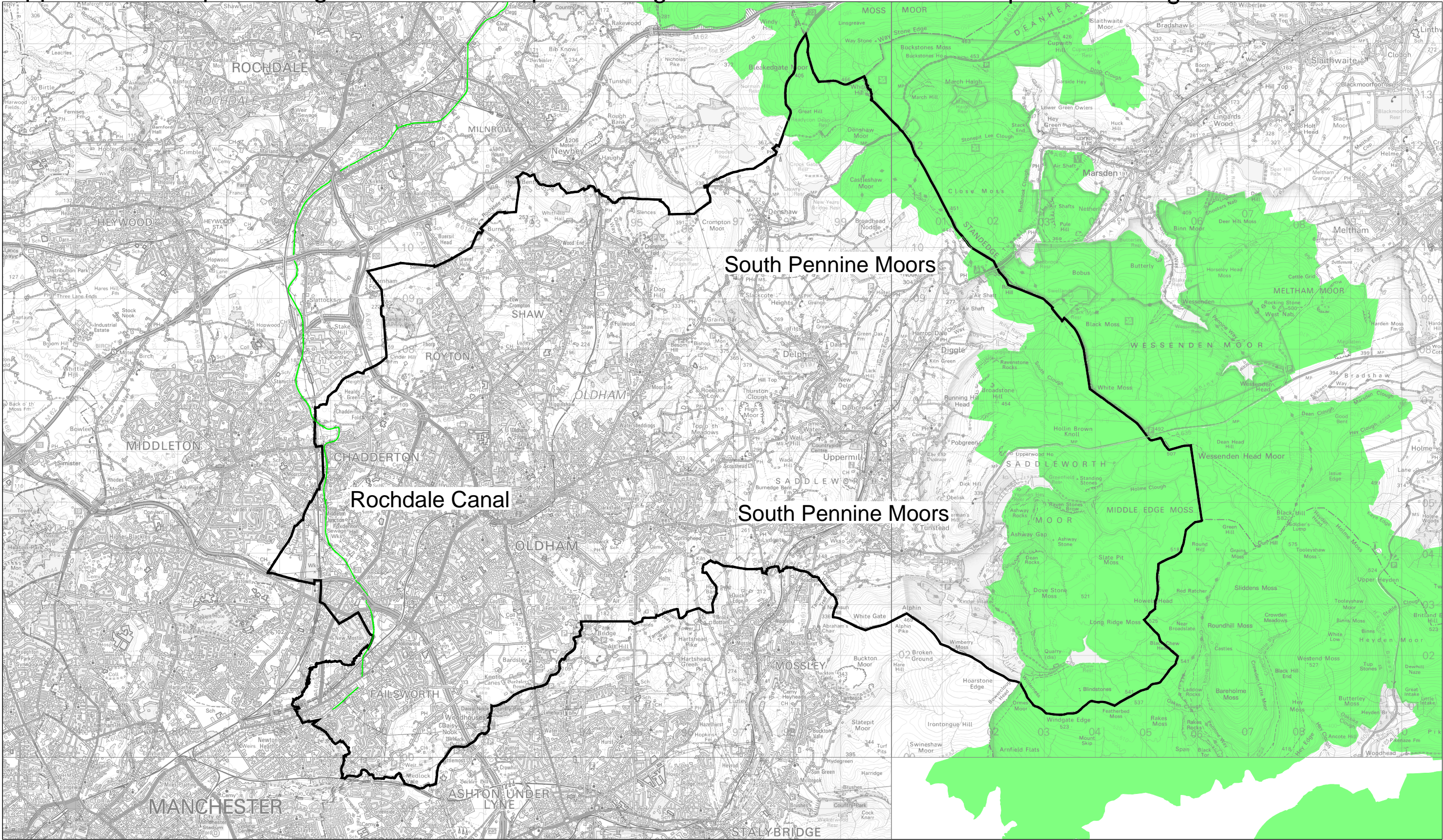
Introduction

- i The Council is required under Articles 6(3) and (4) of the Habitats Directive to assess the potential effects of its policies on European Sites which lie within and outside the Borough. The purpose of Habitats Regulations Assessment (HRA) is to ensure that the protection of the integrity of European sites is a part of the planning process.
- ii There are two European designated sites which fall partly within the Borough, namely the Rochdale Canal which is a Special Area of Conservation (SAC) and South Pennine Moors which is a SAC and a Special Protection Area (SPA). For information Appendix 1 contains a map showing the location of the European sites in Oldham Metropolitan Borough.
- iii To meet this requirement the Council requested the Greater Manchester Ecology Unit carry out a HRA on the draft Supplementary Planning Document (SPD) 'Renewable Energy'. In accordance with draft guidance from the Department for Communities and Local Government¹ this process involves 3 stages:
 - o AA task 1 – Identifying likely significant effects
 - o AA task 2 – Appropriate assessment and ascertaining the effect on site integrity
 - o AA task 3 – Mitigating measures and alternative solutions
- iv Task 1, also referred to as 'screening', determines whether the subsequent steps (tasks 2 and 3) of HRA are required. In this instance the Greater Manchester Ecology Unit has concluded, subject to changes to the draft SPD, which have been incorporated, that there will be **no significant damaging effects** arising from the draft SPD on the special interest of the Rochdale Canal SAC and the South Pennine Moors SAC and South Pennine Moors SPA. It states that any effects on the Rochdale Canal and South Pennine Moors SAC and SPA arising from the implementation of the procedures described in the draft SPD should in fact be positive, because facilitating renewable energy developments will help to mitigate the damaging effects of climate change on the European Sites. It concludes that the SPD would only have a positive effect on the special interests of the European Sites and therefore carrying out a more comprehensive HRA of the SPD is considered unnecessary.
- v The results of task 1 are included as Appendices 2 and 3. Appendix 2 assesses the likely impact of the draft SPD on the Rochdale Canal. Appendix 3 assesses the likely impact of the draft SPD on South Pennines Moor.

¹ Planning for the Protection of European Sites: Appropriate Assessment – Guidance for Regional Spatial Strategies and Local Development Documents (Department for Communities and Local Government, August 2006)

- vi Members of the public may comment on the HRA during the six week public consultation period as indicated on the public notice and comments form.

Appendix 1 - Map Showing Location of European Designated Sites in Oldham Metropolitan Borough



OLDHAM 
Metropolitan Borough

Regeneration Directorate
Oldham MBC
Oldham Business Centre
Cromwell Street
Oldham
OL1 1WR



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Appendix 2: Screening Opinion on the Impact of the Oldham MBC Renewable Energy Supplementary Planning Document on the Rochdale Canal Special Area of Conservation (SAC)

1 Brief description of the SPD

The document provides information on how policies concerning renewable energy in the Oldham Metropolitan Borough Unitary Development Plan will be interpreted when considering proposed new renewable energy developments in the Borough. In particular it provides guidance and advice on the content of assessments required by the Council as part of Policies NR3.1 and NR3.2 of the UDP regarding the environmental effects of renewable energy developments.

The document is not specific to a particular renewable energy technology, but a list of the most likely technologies considered to be feasible in Oldham Metropolitan Borough is given in Appendix 3 of the SPD. This list has been used as a general reference in the preparation of this screening opinion. However, the screening opinion does not assess in detail the potential impacts of all of the technologies on the list on the nature conservation value of the SAC. Rather, it considers whether a general impact of any kind on the SAC would arise from a renewable energy development.

2 Climate Change

It must be recognised that currently one of the threats to the effective conservation of the Rochdale Canal SAC is climate change, and that renewable energy developments may contribute to the mitigation of the effects of climate change by reducing greenhouse gas emissions. In general, then, policies that support renewable energy developments ought to be welcomed as potentially making a positive contribution to the conservation of the SAC.

However, the contribution that any particular scheme is likely to make to the conservation of the SAC by mitigating climate change is very difficult to quantify. Therefore the view must be taken that, in order to ensure that the contribution of renewable energy developments to the conservation of the SAC is maximised, developers should make every effort to ensure that no detrimental effects are caused to the SAC (or any other important habitat areas) from such developments.

PPS22 states that "Planning permission for renewable energy developments likely to have an adverse effect on a site of international importance for nature and heritage conservation should only be granted once an assessment has shown that the integrity of the site would not be adversely affected." Effectively this SPD should reiterate this point in a local context. One of the overarching aims of this SPD is therefore to ensure that no detrimental effects on the Rochdale Canal SAC arise from renewable energy developments in Oldham Metropolitan Borough, or that such detrimental effects are minimised and/or can be balanced by the contribution that a development may make on a wider scale to reducing greenhouse gas emissions. These points are made in para. 13.78 of Appendix 1 of the document.

In a wider sense, then, the document can be considered as having the potential to make a **positive** impact on the conservation status of the SAC.

3 European Protected Sites and the requirements of the EU Habitats Directive.

The Natura 2000 network provides ecological infrastructure for the protection sites that are of exceptional importance in respect of rare, endangered or vulnerable natural habitats and species within the European Community. These sites, also referred to as European Sites, consist of Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Offshore Marine Sites (OMS).

Article 6(3) of the Habitats Directive states that:

‘any plan or project not directly connected with or necessary to the management of the [European] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the sites conservation objectives’

It is considered that certain renewable energy developments in Oldham Metropolitan Borough have the potential to impact upon the Rochdale Canal European Site. The Renewable Energy SPD, by reason of its objective of facilitating renewable energy developments in Oldham Metropolitan Borough, can therefore be considered to have a potential impact on the special interests of the European Site. This document has therefore been prepared as Stage 1 of an Appropriate Assessment of the Oldham MBC Renewable Energy SPD.

4 Description of the Rochdale Canal SAC

The Rochdale Canal extends approximately 20 km from Littleborough to Failsworth, passing through urban and industrialised parts of Rochdale and Oldham Metropolitan Borough and the intervening areas of agricultural land (mostly pasture). Water supplied to the Rochdale Canal in part arises from the Pennines. This water is acidic and relatively low in nutrients, while water from other sources is mostly high in nutrients. The aquatic flora of the canal is thus indicative of a mesotrophic water quality (i.e. is moderately nutrient-rich) although there is evidence of some local enrichment.

5 Primary reason for designation

The Rochdale Canal supports a significant population of **floating water-plantain *Luronium natans*** in a botanically diverse waterplant community, which also holds a wide range of pondweeds *Potamogeton* spp. The canal has predominantly mesotrophic water. This population of *Luronium* is representative of the formerly more widespread canal populations of north-west England, although the Rochdale Canal supports unusually dense populations of the plant.

5.1 Floating water-plantain; description and ecological characteristics

Floating water-plantain *Luronium natans* occurs in a range of freshwater situations, including nutrient-poor lakes in the uplands (mainly referable to 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*) and slowly-flowing lowland rivers, pools, ditches and canals that are moderately nutrient-rich.

Luronium natans occurs as two forms: in shallow water with floating oval leaves, and in deep water with submerged rosettes of narrow leaves. The plant thrives best in open situations with a moderate degree of disturbance, where the growth of emergent vegetation is held in check. Populations fluctuate greatly in size, often increasing when water levels drop to expose the bottom of the water body. Populations fluctuate from year to year, and at many sites records of ***L. natans*** have been infrequent, suggesting that only small populations occur, in some cases possibly as transitory colonists of the habitat. Populations tend to be more stable at natural sites than artificial ones, but approximately half of recent (post-1980) records are from canals and similar artificial habitats. Its habitat in rivers has been greatly reduced by channel-straightening, dredging and pollution, especially in lowland situations.

6 Operations that may damage the special interest of the canal include operations and activities that affect the growth and survival of *Luronium natans*

- 6.1 Dredging of the canal
- 6.2 Draining of the canal
- 6.3 Pollution of the canal
- 6.4 Shading of the canal
- 6.5 Increased boat traffic using the canal

7 Table 7.1: Possible impact of the Renewable Energy SPD on the special interest of the Rochdale Canal SAC

Potentially Damaging Operation	Impact of SPD
Dredging of the canal	None
Draining of the canal	None
Pollution of the canal	It is possible that certain renewable energy developments adjacent to the SAC for renewable energy developments could potentially lead to pollution of the canal during the construction and operational phases of any development.
Shading of the canal	It is possible that certain renewable energy developments adjacent to the SAC could potentially lead to shading of the canal.
Increase in boat traffic	None
Use of herbicides	None

8 Mitigation already proposed in the SPD for the possible effects listed in table 1

Paragraph 3.21 and 3.22 of the SPD mention the need for an assessment to be made of the impact of renewable energy technologies on biodiversity and nature conservation interests. Appendix 1 (reasoned justification for Policy NR3.1) also mentions the need to balance the potential benefits of renewable energy developments against impacts on designated nature conservation sites.

9 Further recommended mitigation

Specific mention should be made of the nature conservation designations applying to the Rochdale Canal in the SPD. All operations and developments subject to control through the SPD and located within 100m of the SAC should, in any documents prepared as a requirement of the SPD, take due account of the important nature conservation features of the SAC and provide specific and explicit information about how these features are to be safeguarded during the course of any development. There is scope for providing this information in Appendix 1 (reasoned justification for policy NR3.1).

10 Conclusion

The overall impact of the SPD on the Rochdale Canal SAC is potentially positive, since the objective of the document is to facilitate developments that will contribute to the reduction of greenhouse gas emissions and therefore mitigate the effects of climate change. Detailed guidance in the draft document does draw the attention of developers to the need to consider the effects of a potential renewable energy development on important habitats and species, but I would consider that further mitigation is necessary.

Providing that the recommendations for mitigation outlined in section 9 of this report are incorporated into the SPD, my conclusion is that there will be **no significant damaging effects** arising from this document on the special interest of the Rochdale Canal SAC. Any effects on the

SAC arising from the implementation of the procedures described in the document should in fact be positive, because facilitating renewable energy developments will help to mitigate the damaging effects of climate change on the European Protected Site.

It can be concluded that the Supplementary Planning Document would only have a positive effect on the special interests of the SAC and therefore carrying out a more comprehensive Appropriate Assessment of the plan is considered unnecessary.

Appendix 3: Screening opinion on the Impact of the Oldham MBC Renewable Energy Supplementary Planning Document on the South Pennine Moors Special Area of Conservation (SAC) and the South Pennine Moors Special Protection Area (SPA)

1 Brief description of the SPD

The document provides information on how policies concerning renewable energy in the Oldham Metropolitan Borough Unitary Development Plan will be interpreted when considering proposed new renewable energy developments in the Borough. In particular it provides guidance and advice on the content of assessments required by the Council as part of Policies NR3.1 and NR3.2 of the UDP regarding the environmental effects of renewable energy developments.

The document is not specific to a particular renewable energy technology, but a list of the most likely technologies considered to be feasible in Oldham Metropolitan Borough is given in Appendix 3 of the SPD. This list has been used as a general reference in the preparation of this screening opinion. However, the screening opinion does not assess in detail the potential impacts of all of the technologies on the list on the nature conservation value of the SAC/SPA. Rather, it considers whether a general impact of any kind on the SAC/SPA would arise from a renewable energy development, and in particular from:

- Small scale hydro energy developments
- Biomass energy developments
- Onshore wind energy generation developments

2 Climate Change

It must be recognised that currently the major threat to the effective conservation of the South Pennine Moors SAC/SPA is climate change, and that renewable energy developments may contribute to the mitigation of the effects of climate change by reducing greenhouse gas emissions. In general, then, policies that support renewable energy developments ought to be welcomed as potentially making a positive contribution to the conservation of the SAC/SPA.

However, the contribution that any particular scheme is likely to make to the conservation of the SAC/SPA is by mitigating climate change is very difficult to quantify. Therefore the view must be taken that, in order to ensure that the contribution of renewable energy developments to the conservation of the SAC/SPA is maximised, developers should make every effort to ensure that no detrimental effects are caused to the SAC/SPA (or any other important habitat areas) from such developments.

PPS22 states that “Planning permission for renewable energy developments likely to have an adverse effect on a site of international importance for nature and heritage conservation should only be granted once an assessment has shown that the integrity of the site would not be adversely affected.” Effectively this SPD should reiterate this point in a local context. One of the overarching aims of this SPD is therefore to ensure that no detrimental effects on the South Pennine Moors SAC/SPA arise from renewable energy developments in Oldham Metropolitan Borough, or that such detrimental effects are minimised and/or can be balanced by the contribution that a development may make on a wider scale to reducing greenhouse gas emissions. These points are made in paragraph 13.78 of Appendix 1 of the document.

In a wider sense, then, the document can be considered as having the potential to make a **positive** impact on the conservation status of the SAC/SPA.

3 European Protected Sites and the requirements of the EU Habitats Directive.

The Natura 2000 network provides ecological infrastructure for the protection sites that are of exceptional importance in respect of rare, endangered or vulnerable natural habitats and species within the European Community. These sites, also referred to as European Sites, consist of Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Offshore Marine Sites (OMS).

Article 6(3) of the Habitats Directive states that:

‘any plan or project not directly connected with or necessary to the management of the [European] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the sites conservation objectives’

It is considered that certain renewable energy developments in Oldham Metropolitan Borough have the potential to impact upon the South Pennine Moors European Site. In particular, onshore wind developments and hydro power developments may impact upon the European Site because, by their very nature, the wind and water resources are likely to be greatest in upland areas. The Renewable Energy SPD, by reason of its objective of facilitating renewable energy developments in Oldham Metropolitan Borough, can therefore be considered to have a potential impact on the special interests of the European Site. This document has therefore been prepared as Stage 1 of an Appropriate Assessment of the Oldham MBC Renewable Energy SPD.

Two European designations apply to the South Pennine Moors; the site is a Special Area for Conservation (SAC) and a Special Protection Area (SPA) for birds. This screening opinion considers the impact of renewable energy developments on both these designations, since the geographical boundaries of the protected site designations are the same.

4 Description of South Pennine Moors SAC

Special Areas of Conservation (SACs) are strictly protected sites designated under the EC Habitats Directive. Article 3 of the Habitats Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended). The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds). Of the Annex I habitat types, 78 are believed to occur in the UK. Of the Annex II species, 43 are native to, and normally resident in, the UK.

The South Pennine Moors SAC forms part of the Southern Pennines lying between Ilkley in the north and the Peak District National Park boundary in the south. The majority of the site is within West Yorkshire but it also covers areas of Lancashire, Greater Manchester and North Yorkshire. The largest moorland blocks are Ilkley Moor, the Haworth Moors, Rishworth Moor and Moss Moor. The underlying rock is Millstone Grit which outcrops at Boulsworth Hill and on the northern boundary of Ilkley Moor. The moorlands are on a rolling dissected plateau between 300m and 450m AOD with a high point of 517m at Boulsworth Hill. The greater part of the gritstone is overlain by blanket peat with the coarse gravelly mineral soils occurring only on the lower slopes. The site is the largest area of unenclosed moorland within West Yorkshire and contains the most diverse and extensive examples of upland plant communities in the county. Extensive areas of blanket bog occur on the upland plateaux and are punctuated by species rich acidic flushes and mires. There are also wet and dry heaths and acid grasslands. Three habitat types which occur on the site are rare enough within Europe to be listed on Annex 1 of the EC habitats and Species Directive (92/43) EEC. These communities are typical of and represent the full range of upland vegetation classes found in the South Pennines. This mosaic of habitats supports a moorland breeding bird assemblage which, because of the range of species and number of breeding birds it contains, is of regional and national importance. The large numbers of breeding merlin *Falco columbarius*, golden plover *Pluvialis apricaria* and twite *Carduelis flavirostris* are of international importance.

5 Description of the South Pennine Moors SPA

Special Protection Areas (SPAs) are strictly protected sites classified in accordance with Article 4 of the [EC Directive on the conservation of wild birds \(79/409/EEC\)](#), also known as the Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds, listed in Annex I to the Birds Directive, and for regularly occurring migratory species. The South Pennine Moors SPA includes the major moorland blocks of the South Pennines from Ilkley in the north to Leek and Matlock in the south. It covers extensive tracts of semi-natural moorland habitats including upland heath and blanket mire. The site is of European importance for several upland breeding bird species including birds of prey and waders.

6 Primary reason for designation of the SAC

6.1 The site supports the following important habitats

6.1.1 European Dry Heaths

The site is representative of upland dry heath at the southern end of the Pennine range, the habitat's most south-easterly upland location in the UK. Dry heath covers extensive areas, occupies the lower slopes of the moors on mineral soils or where peat is thin, and occurs in transitions to acid grassland, wet heath and blanket bogs. The upland heath of the South Pennines is strongly dominated by heather *Calluna vulgaris*. Its main NVC types are H9 *Calluna vulgaris* – *Deschampsia flexuosa* heath and H12 *Calluna vulgaris* – *Vaccinium myrtillus* heath. More rarely H8 *Calluna vulgaris* – *Ulex gallii* heath and H10 *Calluna vulgaris* – *Erica cinerea* heath are found. On the higher, more exposed ground H18 *Vaccinium myrtillus* – *Deschampsia flexuosa* heath becomes more prominent. In the cloughs, or valleys, which extend into the heather moorlands, a greater mix of dwarf shrubs can be found together with more lichens and mosses. The moors support a rich invertebrate fauna, especially moths, and important bird assemblages.

6.1.2 Blanket Bogs

This site represents **blanket bog** in the south Pennines, the most south-easterly occurrence of the habitat in Europe. The bog vegetation communities are botanically poor. Hare's-tail cottongrass *Eriophorum vaginatum* is often overwhelmingly dominant and the usual bog-building *Sphagnum* mosses are scarce. Where the blanket peats are slightly drier, heather *Calluna vulgaris*, crowberry *Empetrum nigrum* and bilberry *Vaccinium myrtillus* become more prominent. The uncommon cloudberry *Rubus chamaemorus* is locally abundant in bog vegetation. Bog pools provide diversity and are often characterised by common cottongrass *E. angustifolium*. Substantial areas of the bog surface are eroding, and there are extensive areas of bare peat. In some areas erosion may be a natural process reflecting the great age (9000 years) of the south Pennine peats.

6.1.3 [Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles](#)

Around the fringes of the upland heath and bog of the south Pennines are blocks of **old sessile oak woods**, usually on slopes. These tend to be dryer than those further north and west, such that the bryophyte communities are less developed (although this lowered diversity may in some instances have been exaggerated by the effects of 19th century air pollution). Other components of the ground flora such as grasses, dwarf shrubs and ferns are common. Small areas of alder woodland along stream-sides add to the overall richness of the woods.

7 Primary reason for the designation of the SPA

The site qualifies for the designation by supporting populations of European importance of the following species listed on Annex I of the Directive:

During the breeding season:

Golden plover *Pluvialis apricaria*, at least 3.3% of the breeding population in Great Britain
Merlin *Falco columbarius*, at least 5.9% of the breeding population in Great Britain

Peregrine *Falco peregrinus*, at least 1.4% of the breeding population in Great Britain
Short-eared owl *Asio flammeus*, at least 2.5% of the breeding population in Great Britain

The SPA supports an internationally important assemblage of birds. During the breeding season the area regularly supports:

Actitis hypoleucos, *Calidris alpina schinzii*, *Carduelis flavirostris*, *Gallinago gallinago*, *Numenius arquata*, *Oenanthe oenanthe*, *Saxicola rubetra*, *Tringa tetanus*, *Turdus torquatus*, *Vanellus vanellus*

8 Operations that may damage the special interest of the SAC/SPA include

- 8.1 Cultivation
- 8.2 Grazing
- 8.3 Mowing or cutting
- 8.4 Application of manure, fertilisers or lime
- 8.5 Application of pesticides
- 8.6 Burning
- 8.7 Drainage
- 8.8 Extraction of minerals including peat, topsoil and subsoil
- 8.9 Construction or removal of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks or the laying or removal of pipelines and cables
- 8.10 Erection of permanent structures
- 8.11 Erection of wind turbines (direct bird strike)
- 8.12 Use of vehicles likely to damage the vegetation
- 8.13 Pollution
- 8.14 Recreational activities
- 8.15 Agricultural intensification leading to loss of bird feeding areas outside the designated site

9 Impact of the Renewable Energy SPD on the special interest of the SAC / SPA

The following table considers in particular the effects of the following renewable energy technologies on the South Pennine Moors:

- Onshore wind energy
- Hydro power

Because, by their nature, the wind and water resources in the Borough are likely to be at their greatest in upland areas.

Other technologies, although considered in the assessment, are considered less likely to have an impact of the special interest of the SAC/SPA because:

- Solar power – there are few buildings within the SAC/SPA, and the solar resource in the upland areas is less than in lowland areas
- Biomass – the landscape is generally unsuitable to support biomass crops, common land status may restrict land-use activities other than grazing, few properties close to possible generating stations
- Anaerobic digestion – lack of infrastructure within the SAC/SPA to support required infrastructure

Table 9.1 Assessment of potential impacts of the SPD on the South Pennine Moors European Site and Mitigation required.

Potentially Damaging Operation	Impact of SPD	Current Mitigation outlined in the SPD	Additional mitigation required
Cultivation	The establishment of renewable energy cropping systems could potentially damage important habitats in the SAC/SPA, if crops were to be planted within the SAC/SPA boundary.	Para. 3.21 and 3.22 of the SPD makes mention of the need for an assessment to be made of the impact of renewable energy technologies on biodiversity and nature conservation interests.	Specific mention should be made of the nature conservation designations applying to the South Pennine Moors in the SPD. All operations and developments subject to control through the SPD and located within 500m of the SAC/SPA should, in any documents prepared as a requirement of the SPD, take due account of the important nature conservation features of the SAC/SPA and provide explicit information about how these features are to be safeguarded during the course of any development. There is scope for providing this information in Appendix 1 (reasoned justification for Policy NR3.1).
Grazing	None	None required	None required
Mowing or cutting	None	None required	None required

Application of manure, fertilisers or lime	None	None required	None required
Application of pesticides	None	None required	None required
Burning	None	None required	None required
Drainage	There is potential for certain renewable energy developments to lead to changes in drainage regimes; in particular medium and large scale wind energy developments and hydro-electric schemes may require drainage operations to be undertaken within the SAC/SPA.	Para. 3.21 and 3.22 of the SPD makes mention of the need for an assessment to be made of the impact of renewable energy technologies on biodiversity and nature conservation interests.	Specific mention should be made of the nature conservation designations applying to the South Pennine Moors in the SPD. All operations and developments subject to control through the SPD and located within 500m of the SAC should, in any documents prepared as a requirement of the SPD, take due account of the important nature conservation features of the SAC and provide explicit information about how these features are to be safeguarded during the course of any development. There is scope for providing this information in Appendix 1 (reasoned justification for Policy NR3.1).
Extraction of minerals	None	None required	None required
Construction or removal of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks or the laying or removal of pipelines and cables	There is potential for certain renewable energy developments to lead to direct habitat loss; in particular medium and large scale wind energy developments may require some or all of these operations to be undertaken within the SAC/SPA.	Para. 3.21 and 3.22 of the SPD makes mention of the need for an assessment to be made of the impact of renewable energy technologies on biodiversity and nature conservation interests.	Specific mention should be made of the nature conservation designations applying to the South Pennine Moors in the SPD. All operations and developments subject to control through the SPD and located within 500m of the SAC should, in any documents prepared as a requirement of the SPD, take due account of the important nature conservation features of the SAC and provide explicit information about how these features are to be safeguarded during the course of any development. There is scope for providing this information in Appendix 1 (reasoned justification for Policy NR3.1).

Erection of permanent structures	There is potential for certain renewable energy developments to lead to the erection of permanent structures; in particular medium and large scale wind energy developments may require the erection of large wind turbines and sub-stations.	Para. 3.21 and 3.22 of the SPD makes mention of the need for an assessment to be made of the impact of renewable energy technologies on biodiversity and nature conservation interests.	Specific mention should be made of the nature conservation designations applying to the South Pennine Moors in the SPD. All operations and developments subject to control through the SPD and located within 500m of the SAC should, in any documents prepared as a requirement of the SPD, take due account of the important nature conservation features of the SAC and provide explicit information about how these features are to be safeguarded during the course of any development. There is scope for providing this information in Appendix 1 (reasoned justification for Policy NR3.1).
Erection of wind turbines (direct bird strike)	There is potential for wind turbines to have a significant impact on the special interest of the SPA because of bird mortality caused by collisions of birds with turbine blades.	Para. 3.21 and 3.22 of the SPD makes mention of the need for an assessment to be made of the impact of renewable energy technologies on biodiversity and nature conservation interests.	Specific mention should be made of the nature conservation designations applying to the South Pennine Moors in the SPD, in particular the SPA (birds). All operations and developments subject to control through the SPD and located within 500m of the SAC should, in any documents prepared as a requirement of the SPD, take due account of the important nature conservation features of the SAC and provide explicit information about how these features are to be safeguarded during the course of any development. There is scope for providing this information in Appendix 1 (reasoned justification for policy NR3.1).
Use of vehicles likely to damage the vegetation	There is potential for certain renewable energy developments to lead to the use of vehicles within the SAC/SPA; in particular medium and large scale wind energy developments may require the use of heavy vehicles during the construction and	Para. 3.21 and 3.22 of the SPD makes mention of the need for an assessment to be made of the impact of renewable energy technologies on biodiversity and nature conservation interests.	Specific mention should be made of the nature conservation designations applying to the South Pennine Moors in the SPD. All operations and developments subject to control through the SPD and located within 500m of the SAC should, in any documents prepared as a requirement of the SPD, take due account of the important nature conservation features of the SAC and provide explicit information about how these features will

	decommissioning periods.		be protected during operations that may result in increased pollution. There is scope for providing this information in Appendix 1 (reasoned justification for policy NR3.1).
Pollution	There is potential for certain renewable energy developments to lead to pollution of important habitats, particularly during the construction and decommissioning periods.	Para. 3.21 and 3.22 of the SPD makes mention of the need for an assessment to be made of the impact of renewable energy technologies on biodiversity and nature conservation interests.	Specific mention should be made of the nature conservation designations applying to the South Pennine Moors in the SPD. All operations and developments subject to control through the SPD and located within 500m of the SAC should, in any documents prepared as a requirement of the SPD, take due account of the important nature conservation features of the SAC and provide explicit information about how these features will be protected during operations that may result in increased pollution. There is scope for providing this information in Appendix 1 (reasoned justification for policy NR3.1).
Recreational activities	None	None required	None required
Agricultural intensification	None	None required	None required

10 Conclusions and recommendations

The overall impact of the SPD on the South Pennine Moors SAC / SPA is potentially positive, since the objective of the document is to facilitate developments that will contribute to the reduction of greenhouse gas emissions and therefore mitigate the effects of climate change. Detailed guidance in the draft document does draw the attention of developers to the need to consider the effects of a potential renewable energy development on important habitats and species, but I would consider that further mitigation is necessary.

I would **recommend** that specific mention of the South Pennine Moors SAC and the South Pennine Moors SPA be made in the document, including a map showing the boundary of the site(s). Renewable Energy developments within the SAC/SPA or within 500m of the SAC/SPA that are considered to have potential to lead to any of the damaging operations described in table 9.1 should be considered as having potential to damage important habitats and species in the SAC and therefore the potential to have a significant impact on the special interest of the SAC/SPA. Developers should be advised of the requirement to carry out Appropriate Assessments of developments with the potential to affect the special interest of the SAC/SPA, to give recognition of the special importance of the SAC/SPA and to provide *specific* and *explicit* information as to how any damaging effects of a renewable energy development on the South Pennine Moors are to be avoided during the course of any development. This should be considered during any pre-application discussions with the Council and/or with an application for planning permission.

Providing that these recommendations for mitigation are incorporated into the SPD, my conclusion is that there will be **no significant damaging effects** arising from this document on the special interest of the South Pennine Moors SAC and the South Pennine Moors SPA. Any effects on the SAC/SPA arising from the implementation of the procedures described in the document should in fact be positive, because facilitating renewable energy developments will help to mitigate the damaging effects of climate change on the European Protected Site.

It can be concluded that the Supplementary Planning Document would only have a positive effect on the special interests of the SAC and the SPA and therefore carrying out a more comprehensive HRA of the SPD is considered unnecessary.