

HABITAT REGULATIONS ASSESSMENT OF THE ROCHDALE LOCAL FLOOD RISK MANAGEMENT STRATEGY



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For

Rochdale Council

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1 Introduction

1.1 Article 6(3) of the European Habitats Directive dealing with the conservation of European protected sites states that:

'Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subject to assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.'

1.2 The Rochdale Local Flood Risk Management (the Plan) is considered to be a Local Development Document (a 'Plan') that falls under Part IV, 85A-(2) of the 2007 Habitats Regulations Amendments and therefore is required to be subject to a Habitats Regulations Assessment (to be taken at least through the screening stage (Stage 1)).

1.3 European protected sites (the 'Natura 2000 Network') are of exceptional importance for the conservation of important species and natural habitats within the European Union. The purpose of Habitats Regulation Assessment (HRA) of land use plans is to ensure that protection of the integrity of European protected sites is an integral part of the planning process at a regional and local level. The network of European protected sites comprises Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites. Government guidance advises that potential SPAs (pSPA), candidate SACs (cSAC) and potential Ramsar (pRamsar) sites are also included in HRAs.

1.4 Habitats Regulation Assessments can be seen as having a number of discrete stages -

- Stage 1 - Screening
- Stage 2 – Appropriate Assessment
- Stage 3 – Assessment of Alternatives
- Stage 4 – Assessment where no alternatives are available

1.5 This document comprises Stage 1 of the Habitats Regulation Assessment process and contributes to the fulfilment of Rochdale Council's statutory duty as regards Article 6(3). That is, it is an Opinion on, and an Assessment of, whether or not the implementation of the Rochdale Local Flood Risk Management Strategy (hereafter referred to as 'the Plan'), may have a significant effect on the special interest of any European designated protected sites. It is also an Opinion on, and an Assessment of, whether any of the identified effects (if any) can be avoided or mitigated or whether any of the actions proposed in the Plan or the Plan text need to be amended.

1.6 It is noted that the Plan being assessed has not (yet) been examined in public and further Assessments may be required if the Plan develops further. There is no statutory guidance on what stage of Plan production to best prepare an HRA but Natural England recommends that HRA begins at an early stage and if necessary continues through all the stages of plan production. HRA Methodologies are at a relatively early stage of development and examples of Best Practice have not yet emerged. As Best Practice emerges the methodology undertaken for this HRA may develop.

1.7 The Greater Manchester Ecology Unit (GMEU), as the specialist ecological adviser to Rochdale Council, has prepared this Screening Opinion. Natural England and the JNCC were consulted for information on the conservation objectives and favourable condition tables for the European Sites concerned (the information is summarised below). GMEU ecologists, who are familiar with the European sites concerned and their special interest, reviewed the ecological information for the site. The key vulnerabilities and sensitivities

of the European sites concerned are well understood by GMEU allowing for an informed assessment of the possible effects of the Plan, and any specific aims, objectives and policies contained in the Plan on the special interests of European sites.

2 Brief description of the Plan

2.1 The Plan being assessed is the Rochdale Local Flood Risk Management Strategy.

2.2 For the purposes of this Assessment the Plan is not complete; further iterations may arise following consultation and review. An Opinion is being sought at this stage of Plan development to ensure that the requirements to meet terms of the Regulations regarding Habitats Regulation Assessment can be properly planned for and addressed.

2.3 The objectives of the Plan are to –

- Understand our [Rochdale's] flood risks better.
- Communicate those risks more effectively to those who are at risk from flooding and who can help manage and respond to flood risk and its consequences.
- Help people, communities and businesses to take greater ownership of flood risk where they can manage and where possible reduce their risk and be better prepared to respond to and recover from flood events.
- Work as a Lead Local Flood Authority with other flood risk management agencies to manage flood risk better, reduce the impact of flooding and wherever possible reduce or remove the risk of flooding through investing in our drainage infrastructure and its future management.
- Ensure that development and land management do not increase flood risks and contribute to sustainable drainage and reduction of flood risk.
- Ensure that how we [Rochdale Council] manage and reduce flood risk helps our local communities, economy and environment to be more resilient to climate change impacts and helps to deliver a clean and safe water environment, rich in wildlife and opportunities for its enjoyment.

The majority of the actions and objectives of the Strategy will not in themselves involve any direct development works or land-take. However they will inform and lead to the prioritisation of development measures to alleviate flood risk and they will serve to identify any potential risk of flooding impacts on protected nature conservation sites, including European Protected Sites. This will make possible the proper consideration of European sites in the development of any detailed plans and the implementation of measures to better protect European Sites from flooding impacts. The majority of actions in the Strategy could therefore have a potentially beneficial interest on the special qualifying features of any relevant European Sites.

Where the locations of Strategic Flood Risk Projects are known and described in the Plan these projects are only at investigation and/or concept phase of development and no details are available to be Assessed. This stage of project development allows for the proper consideration of the impact on any scheme on the special interest of European sites. Indeed the Plan states “The LLFA [Rochdale Council] will also ensure that flood risk management activities help to protect and enhance biodiversity in the borough and areas outside the borough where our activities could impact on species and habitats” (para.??).

It then goes on to list important areas for nature conservation, including identifying Natura 2000 sites, that will need to be included for consideration.

3 Identification of European designated sites that could be affected by the Plan

3.1 This Assessment has first screened European protected sites in the North West of England to decide which of these sites are likely to be affected by implementation of the Plan. When assessing the impact of a Plan on European protected sites it is important to consider the impact on sites not only within the administrative area covered by the Plan but also those which fall outside the Plan boundary, as these could still potentially be affected by the Plan.

3.2 As a useful starting point, the Assessment has considered the suite of European sites assessed within the North West Regional Spatial Strategy (RSS) Habitat Regulations Assessment. These sites are listed in Appendix 1. Although it is recognised that the RSS has now been abolished, the completed HRA of the RSS remains relevant in the Assessment of impacts on North West European sites. It is a useful starting point to ensure that *all* European sites considered to have the potential to be affected by development within the entire north-west Region can be initially considered for assessment (screened).

3.3 The Screening Criteria

In carrying out this screening process the Assessment has considered the main possible **sources** of effects on the European sites arising from the Plan, possible **pathways** to the European sites and the effects on possible sensitive **receptors** in the European sites. Only if there is an identifiable source, a pathway and a receptor is there likely to be a significant effect.

Possible sources and pathways for effects arising from development in the identified Sites and used in the screening of European sites are considered to be:

- Water (water pollution and hydrology)
- Air (air pollution)
- Direct land-take
- Habitat/Species Disturbance
- Increased recreational pressure

Guidance from the Environment Agency (EA) concerning distances at which significant effects on European sites are caused by water or air pollution have been taken into account during the screening of European sites in the north west. The EA has set recommended buffer zones for certain types of operation (in particular, waste treatment operations) that are in part applicable to other types of operation. Outside of these buffer zones significant effects on European sites arising from water and air pollution are considered unlikely to arise. The largest (most cautious) buffer zone considered by the EA is 5km; that is, most operations with the potential to cause direct water and/or air pollution impacts located further than 5km from the boundary of a European site are considered very unlikely to have a significant effect on the special interest of that site. Only two European sites are (partly) within the boundary of Rochdale; these are the Rochdale Canal SAC and the South Pennine Moors SAC/SPA.

Although this guidance concerning buffer zones has been taken into account when screening European protected sites in this particular assessment, in the case of a Plan affecting the development of an entire metropolitan area, the 5km buffer zone should be regarded as important but not as definitive – for example, this buffer zone may not be sufficient when assessing certain very large-scale developments or secondary impacts.

In particular, applying the 5km buffer may not be appropriate for this Plan where there are unlikely to be direct impacts on any European sites, but more likely that possible impacts

will be caused by **diffuse air or water pollution** that may arise from the significant development planned for Rochdale, or where there are secondary **recreational** pressures on more distant protected sites arising from increased regional and sub-regional populations. It is also possible that increased **water use** may affect distant protected sites, since water supplies to Rochdale are sourced in part from areas including European sites. These factors are therefore described and considered in more detail below.

3.3.1 Diffuse Air Pollution

The main types of air pollutants likely to have an adverse effect on an ecologically important site are:

- Oxides of Nitrogen (NO_x)
- Ammonia (NH₃)
- Dust
- Sulphur Dioxide (SO₂)
- Low level Ozone (O₃)

(Scott Wilson Ltd 2007)

Of these NO_x and SO₃ are the most likely airborne pollutants to arise as a result of development controlled or prioritised by a Plan process (mainly through increased traffic). The greatest damage caused by these pollutants occurs close to where they are emitted (within 250 m) but an individual source of pollution may add to the general background levels, as pollutants are dispersed by prevailing winds. The main sources of these pollutants are road traffic and industrial processes.

It should be mentioned here that in the past large scale coal burning in Greater Manchester probably affected moorland now within the South Pennine Moors SAC, in the north and east of Rochdale Borough, because the prevailing winds are from the South West, carrying pollution towards the moors. However, it is now considered that the most likely source of increased air pollution arising from the operation of any Borough-wide Plan will be increased road traffic, which is not a source considered likely to occur through the implementation of a flood risk management plan.

3.3.2 Diffuse Water Pollution

Effects on distant European sites can occur through increases in water pollution caused by nutrient enrichment and/or industrial processes. Where proposed developments within Rochdale are considered likely to result in this type of diffuse pollution arising and affecting a European site, these have been screened into this Assessment.

Of the sites considered under Appendix 1, diffuse water pollution arising from flood alleviation schemes could potentially have an effect on the Rochdale Canal SAC, because part of the Canal passes through Rochdale.

However the Rochdale Canal does pass through other urban areas outside of Rochdale. Also, the water flow through the Canal is controlled by a series of locks that in places serve to slow and/or divert water flow, and this results in sedimentation occurring along the Canal, reducing the potential for diffuse spread of certain pollutants throughout the Canal. Other strategies and plans, in particular the requirements of the EU Water Frameworks Directive and the associated River Basin Management Plans, will require measures to be taken to ensure a reduction in pollution levels in the Canal. There will therefore be controls in place additional to controls described in the Plan itself to avoid any significant effects arising from this source during the implementation of the flood risk management plan.

3.3.3 Recreational Pressure

In the case of the South Pennine Moors SAC/SPA it is generally considered in this Assessment that any recreational pressures arising from development within Rochdale on this European protected site will be diffuse and therefore not significant, and/or very difficult to assess independently. However, it is possible that certain types of development within Rochdale (e.g. new Canal boat berths) may have an impact on the special interest of the Rochdale Canal SAC.

Given the scope and aims and objectives of the Plan being assessed it is considered very unlikely that this type of impact will arise as a result of the implementation of the flood risk management plan.

3.3.4 Water Supply

Rochdale obtains its water supply from supplies that serve much of Greater Manchester. It is therefore very difficult to assess the impact on any remote European protected sites of any increase in water demand caused by development in Rochdale alone. For this reason reliance has been placed on the results of the Appropriate Assessment of the RSS and distant European sites supplying water to the GM sub-region have been screened out of the Assessment of this Plan.

It is material to state here that United Utilities (the main water supply utility company in the north west of England) have stated that no water supply issues are envisaged for Rochdale for the foreseeable future (*UU NW strategic plan*).

Further, it is difficult to envisage the implementation of a flood risk management plan requiring increased water abstraction from within European sites.

3.3.5 The detailed results of the site screening process are found in Appendices 1 and 2 of this document. Appendix 1 shows the likely effects of the possible pathway and sources, outlined above, of future development in Rochdale on these European Sites. Appendix 2 summarises the results of this screening process. The outcomes of the site screening process are given below.

3.4 Summary Results of Screening of Sites

From the screening process detailed in Appendix 1 and 2 the following European designated sites have been identified as having some potential to be affected by the implementation of a flood risk management strategy for Rochdale -

- **South Pennine Moors Special Area of Conservation**
- **South Pennine Moors Special Protection Area**
- **Rochdale Canal Special Area of Conservation**

There follows a description of the special nature conservation interests of the above sites.

4 The Nature Conservation Interest of the Rochdale Canal SAC and the South Pennine Moors SAC/SPA

The following information is derived from information available on-line from Natural England and the Joint Nature Conservation Committee and from information held by GMEU.

4.1 The Rochdale Canal

4.1.1 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 Rochdale and the intervening areas of agricultural land (mostly pasture). Only part of the Canal is within the borough of Rochdale. 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.

4.1.2 Primary reason for designation of the Rochdale Canal as a European protected site

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.

The conservation objective for the European interest of the SAC is to maintain, in favourable condition, the habitats for the population of Floating water-plantain (*Luronium natans*). Maintenance implies restoration if the feature is not currently in favourable condition

4.1.3 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.

4.1.4 Operations that may damage the special interest of the canal include operations and activities that affect the growth and survival of *Luronium natans*. These have been identified as:-

- Dredging of the canal
- Draining of the canal
- Pollution of the canal
- Shading of the canal
- Increased boat traffic using the canal, increasing both water turbidity and disturbance of substrates
- Use of herbicides in or adjacent to the canal
- Introduction or spread of alien invasive species to the Canal
- Species disturbance

4.1.5 When assessing the possible impacts of a Plan on the Rochdale Canal SAC, the potential of the Plan to cause any or all of the above listed damaging operations has to be considered when reaching a decision as to whether the plan needs to undergo a full Appropriate Assessment. A recent High Court judgment (The Queen on the application of Hart District Council v The Secretary of State for Communities and Local Government, Luckmore Ltd, Barratt Homes Ltd case 2008) has confirmed that avoidance and mitigation measures which form part of a Plan should be taken into account in the screening of projects for the likelihood of a significant effect (Stage 1). However, the purpose of compensatory measures is different and these should not be taken into account in assessing whether the proposal is likely to have significant effects on a European site.

4.1.6 The precautionary principle must be applied when making such an assessment. If it is found that any development could result in a damaging operation then the proposal is likely to have a significant effect on the European site and should be subject to full Appropriate Assessment (Stages 2-4).

4.2 South Pennine Moors SAC and the South Pennine Moors SPA

4.2.1 Description of the South Pennine Moors SAC

This very large site 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 gravely 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.

4.2.2 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, 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.

4.2.3 Primary reason for designation of the South Pennine Moors SAC

4.2.4 The site supports the following important habitats

European Dry Heath

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.

Blanket Bog

This site represents blanket bog in the south Pennines, the most south-easterly occurrence of the habitat in Europe. The bog vegetation communities are generally botanically poor. Hare's-tail cottongrass *Eriophorum vaginatum* is often overwhelmingly dominant, although bog-building *Sphagnum* mosses are present. 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.

Old Sessile Oak Woods

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.

4.2.5 Primary reason for the designation of the South Pennine Moors SPA

The site qualifies for the designation by supporting populations of European importance of the following bird 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



Merlin

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

Common sandpiper *Actitis hypoleucos*, Dunlin *Calidris alpina schinzii*, Twite *Carduelis flavirostris*, Snipe *Gallinago gallinago*, Curlew *Numenius arquata*, Wheatear *Oenanthe oenanthe*, Redshank *Tringa totanus*, Ring ouzel *Turdus torquatus*, Lapwing *Vanellus vanellus*

4.2.6 Conservation Objectives of the South Pennine Moors

Natural England lists the conservation objectives for the South Pennine Moors as follows:

to maintain*, in favourable condition, the habitats for the populations of Annex 1 species + of European importance, with particular reference to:

- blanket mire
- dwarf shrub heath
- acid grassland
- gritstone edges

+ golden plover, merlin, short-eared owl

to maintain*, in favourable condition, the:

- blanket bog (active only)
- dry heaths
- Northern Atlantic wet heaths with *Erica tetralix*
- transition mires and quaking bogs

- old oak woods with *Ilex* and *Blechnum* in the British Isles

* maintenance implies restoration if the feature is not currently in favourable condition.

4.2.7 List of potentially damaging operations

- Cultivation
- Application of manure, fertilisers or lime
- Application of pesticides
- Burning
- Drainage
- Extraction of minerals
- Construction or removal of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks or the laying or removal of pipelines and cables
- Erection of permanent structures
- Use of vehicles
- Pollution
- Recreational activities
- Agricultural intensification
- Direct land take
- Disturbance to species
- Introduction of alien species

4.2.8 When assessing the possible impacts of a Plan on the South Pennine Moors SAC/SPA, the potential of the Plan to cause any or all of the above listed damaging operations has to be considered when reaching a decision as to whether the plan needs to undergo a full Appropriate Assessment. A recent High Court judgment (The Queen on the application of Hart District Council v The Secretary of State for Communities and Local Government, Luckmore Ltd, Barratt Homes Ltd case 2008) has confirmed that avoidance and mitigation measures which form part of a Plan should be taken into account in the screening of projects for the likelihood of a significant effect (Stage 1). However, the purpose of compensatory measures is different and these should not be taken into account in assessing whether the proposal is likely to have significant effects on a European site.

4.2.9 The precautionary principle must be applied when making such an assessment. If it is found that any development could result in a damaging operation then the proposal is likely to have a significant effect on the European site and should be subject to full Appropriate Assessment (Stages 2-4).

5 Screening Opinions

5.1 Many of the stated Objectives of the Plan itself relate to the need for better information about flood risks, better communication about flood risks and better planning and coordination of flood risk alleviation schemes. The implementation of these objectives will greatly reduce any risks of harm to European protected sites that may arise from future flood management schemes.

5.2 Possible Impacts of the Plan on the Rochdale Canal SAC – Screening Opinion

Of the potentially damaging operations described in section 4.1.4 of this report schemes to reduce flood risk within Rochdale may have the potential to cause –

- dredging,
- drainage and/or
- pollution

This is because the Canal runs through the majority of the Borough of Rochdale including heavily populated areas and flood alleviation projects could take place adjacent to or near to the Canal. It is also feasible that proposals could come forward to use the Canal itself for flood water storage or directly for flood alleviation. This is particularly true in the north east of the Borough where areas with the greatest flood risk coincide with locations close to the Canal, which could lead to flood risk alleviation schemes coming forward that either directly or indirectly affect the Canal.

It is not possible at this stage to assess particular schemes that may come forward as a result of the implementation of the Plan. What is possible at this stage is to ensure that the special interest of the Canal is properly considered in any schemes that may result from the operation of the Plan. In this respect it is noted that the Plan contains the following recognition of the importance of protecting nature conservation interests, in particular European protected sites –

*“In addition to the requirements of the Water Framework Directive for protecting and enhancing the water environment, the requirements of the **EU Habitats Directive** must also be given appropriate consideration where works could affect a ‘Natura 2000’ site i.e. sites throughout the European Union which are statutorily protected for their habitats which may be both rare and declining. These sites include Special Areas of Conservation (SAC) and also Special Protection Areas (SPA) which are designated under the EU Birds Directive for their importance for bird species and communities. Such sites can be sensitive to impacts such as the effect of changes to drainage patterns and as such it is important to ensure that proposals which could impact on such sites are identified and appropriately assessed where necessary to ensure they can be carried out without causing significant damage to species and habitats of importance and receive approval to proceed if required.*

“Rochdale borough includes a long section of the Rochdale Canal SAC and part of the South Pennine Moors SAC/SPA which is located in the South Pennine watershed and includes water gathering catchments and a number of reservoirs and watercourses draining into waterbodies in Rochdale district and beyond. The Lead Local Flood Authority will ensure that any proposals for flood risk management including increased water storage and flood defences are subject to robust scoping and that Natural England, the body with responsibility for ensuring the protection and good management of Natura 2000 sites are properly consulted wherever necessary to determine further Habitat Regulations Assessment and approvals that may be required”.

These paragraphs are useful and will provide a high degree of protection for European sites but could be made more robust by stressing **avoidance** of impacts as a primary consideration.

5.2 Possible Impacts of the Plan on the South Pennine Moors SAC/SPA

Of the potentially damaging operation described in section 4.2.7 of this report it is considered that the following impacts may result from operations to alleviate flood risk in Rochdale –

- **Direct land take**
- **Erection of permanent structures**

This is because the Moors are a major source of water for the Borough and reducing run-off from the Moors could be a useful long-term way of reducing some types of flood risk in more populated parts of the Borough.

It is notable that the improvement of certain of the important habitats within the SAC by re-wetting and increasing water storage (e.g. of blanket bog) could have a significant positive effect on the special interests of the SAC/SPA as well as serving to ameliorate flood risk downstream in populated areas of the Borough.

It is not possible at this stage to assess which particular schemes that may come forward as a result of the implementation of the Plan. What is possible at this stage is to ensure that the special interests of the South Pennine Moors are properly considered in any schemes that may result from the operation of the Plan. In this respect it is noted that the Plan contains the following recognition of the importance of protecting nature conservation interests, in particular European protected sites –

*“In addition to the requirements of the Water Framework Directive for protecting and enhancing the water environment, the requirements of the **EU Habitats Directive** must also be given appropriate consideration where works could affect a ‘Natura 2000’ site i.e. sites throughout the European Union which are statutorily protected for their habitats which may be both rare and declining. These sites include Special Areas of Conservation (SAC) and also Special Protection Areas (SPA) which are designated under the EU Birds Directive for their importance for bird species and communities. Such sites can be sensitive to impacts such as the effect of changes to drainage patterns and as such it is important to ensure that proposals which could impact on such sites are identified and appropriately assessed where necessary to ensure they can be carried out without causing significant damage to species and habitats of importance and receive approval to proceed if required.*

“Rochdale borough includes a long section of the Rochdale Canal SAC and part of the South Pennine Moors SAC/SPA which is located in the South Pennine watershed and includes water gathering catchments and a number of reservoirs and watercourses draining into waterbodies in Rochdale district and beyond. The Lead Local Flood Authority will ensure that any proposals for flood risk management including increased water storage and flood defences are subject to robust scoping and that Natural England, the body with responsibility for ensuring the protection and good management of Natura 2000 sites are properly consulted wherever necessary to determine further Habitat Regulations Assessment and approvals that may be required”.

These paragraphs are useful and will provide a high degree of protection for European sites but could be made more robust by stressing **avoidance** of impacts as a primary consideration.

6 Consideration of 'In Combination' Effects with Other Plans and Proposals

- 6.1 The Habitats Regulation Assessment must consider the likely significant effect of the Plan in relation to other proposals and plans current or planned within the relevant administrative area, other administrative authorities and prepared by other statutory organisations (e.g. Environment Agency, United Utilities) and in combination with the identified effects of those Plans.
- 6.2 It can be considered that this will fall into two categories: those effects associated with regional strategic plans and proposals and those related to more localised 'in-combination' effects, either with adjacent Authorities or geographically localised plans from other statutory agencies.
- 6.3 The North West Regional Spatial Strategy has considered the 'in-combination' effects of the Region's Projects and Plans at a strategic level (Entec January 2007) and therefore such regionally strategic plans are not considered further in this Assessment.
- 6.4 As regards the emerging Core Strategies and other Development Plan Documents and Flood Risk Management Strategies of neighbouring Greater Manchester authorities, those ready for initial Assessment have been screened by GMEU. These are listed and the results presented in Appendix 3.
- 6.5 This Assessment will be updated and amended as necessary as further Plans come forward for Assessment in order to take into account possible 'in-combination' effects arising, particularly within Rochdale.

7 Conclusions and Recommendations

- 7.1 Screening of European protected sites has established that the following sites have the potential to be affected by the implementation of the Rochdale Local Flood Risk Management Strategy -
- Rochdale Canal Special Area of Conservation
 - South Pennine Moors Special Area of Conservation
 - South Pennine Moors Special Protection Area
- 7.2 Following further screening of the special qualifying features of interest of the Canal, consideration of potentially harmful operations on these features arising from the operation of the Plan and consideration of safeguards contained within the Plan **it has been concluded that the Plan contains sufficient safeguards and objectives to ensure that the implementation of the Rochdale Local Flood Risk Management Strategy will not have any significant impact on the special interest of European Protected Sites.**
- 7.3 No 'in combination' effects are considered likely to occur because of the safeguards listed above.
- 7.4 To make the Plan more robust It is **recommended** that the wording of the Plan should be amended to make clear the need to **avoid** any harmful impacts of flood risk alleviation schemes on European sites. This wording would be best incorporated into the section of the Plan concerned with 'Conserving the Natural Environment'

8 Changes to Rochdale's Strategy for Flood Risk Management in response to the recommendations of the Habitats Regulations Assessment:

Chapter 4 - 'Legislation and strategic plans guiding flood risk management' – 'Conserving the Natural Environment' – 4.11 – additional text to give fuller explanation of the possible impacts upon European Protected Sites, and advice in terms of how harm to these Sites should be avoided when considering flood management proposals.

Chapter 4 - 'Legislation and strategic plans guiding flood risk management' – 'Conserving the Natural Environment' – 4.12 – additional paragraph detailing the European Protected Sites present in the borough and the flood management assets that they contain, and the procedures which will be carried out to ensure their protection and good management when projects involving those assets are being considered.

Chapter 10 – 'Protecting and improving our environment' – 10.5 – additional wording to clarify that the LLFA will ensure that flood risk management protects biodiversity and emphasis that avoidance of damaging impacts upon European Protected Sites will be a priority.

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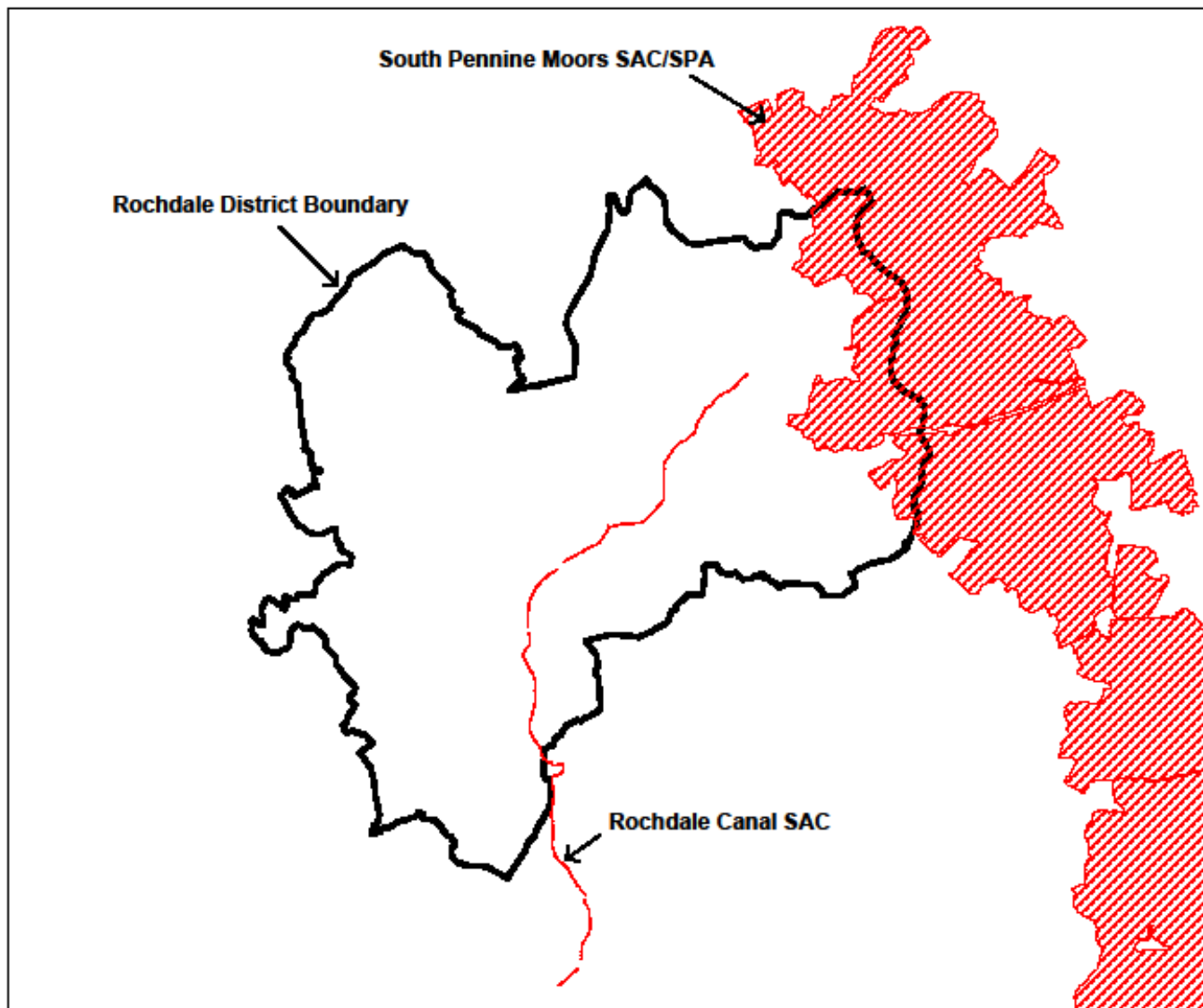


Fig 1
The location of
European protected
sites in relation to the
boundary of Rochdale

APPENDIX 1: European designated sites within the North West Region and possible effects from development within Rochdale. Those highlighted in red have been ‘screened in’ to this Assessment

Site Name	Designation	Type of Effect	Likely Effects
Asby Complex	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC.
		Direct land take	None
		Habitat/Species Disturbance	None – Habitats and species in SAC are generally restricted to habitat types that do not occur in Greater Manchester
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Border Mires, Kielder – Butterburn	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direction disturbance to habitats.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Borrowdale Woodland Complex	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Bowland Fells	SPA	Water Quality/Hydrology	None - No hydrological pathways between SPA and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – identified species are highly unlikely to utilise habitats within Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Calf Hill & Cragg Woods	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Clints Quarry	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None - Species population too distant to be affected by any development with Greater Manchester and species dispersion known to be less than 2km.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Cumbrian Marsh Fritillary Site	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None - Species found in Cumbria is distinct national population, with adults being sedentary. Species not known to occur in Greater Manchester
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Dee Estuary	SPA/Ramsar	Water Quality/Hydrology	None - No hydrological pathways between SPA and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Drigg Coast	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale. Rochdale rivers do not discharge into Drigg Estuary
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Habitats in SAC are restricted to habitat types that do not occur in Greater Manchester
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Duddon Estuary	SPA/Ramsar	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Duddon Mosses	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Esthwaite Water	Ramsar	Water Quality/Hydrology	None - No hydrological pathways between Ramsar site and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching Ramsar site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – habitats and species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Irthinghead Mires	Ramsar	Water Quality/Hydrology	None - No hydrological pathways between Ramsar site and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching Ramsar site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – habitats and species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Lake District High Fells	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats or species
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Leighton Moss	SPA/Ramsar	Water Quality/Hydrology	None - No hydrological pathways between SPA/Ramsar Site and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA and Ramsar Site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Habitats and species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Liverpool Bay	pSPA	Water Quality/Hydrology	None - No hydrological pathways between SPA and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – no information available as to species site selected for but type of species present highly unlikely to be effected by any habitat changes in Rochdale (based on knowledge of Greater Manchester bird populations)
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Manchester Mosses	SAC	Water Quality/Hydrology	Potential drainage effects
		Air Pollution	Potential effects from airborne pollutants
		Direct land take	None
		Habitat/Species Disturbance	Potential for habitats to be effected by hydrological impacts and pollution
		Increased recreational Pressure	Potential effects due to increased population
Martin Mere	SPA/Ramsar	Water Quality/Hydrology	None - No hydrological pathways between SPA/Ramsar Site and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA/Ramsar Site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Habitats and species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Mersey Estuary	SPA/Ramsar	Water Quality/Hydrology	None - Strategic impacts of increased development in Rochdale on the water quality in the SPA/Ramsar Site are considered under the HRA for RSS, where figures for employment land and residential development are set.
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA/Ramsar Site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Habitats and species identified highly unlikely to be significantly effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Mersey Narrows & Wirral Foreshore	pSPA	Water Quality/Hydrology	Site classification details unavailable but there are unlikely to be any hydrological pathways between SPA and land within Rochdale
		Air Pollution	Site classification details unavailable but there are unlikely to be any atmospheric pathways between SPA and land within Rochdale
		Direct land take	None
		Habitat/Species Disturbance	None – no information available as to species site selected for but type of species present highly unlikely to be effected by any habitat changes in Rochdale (based on knowledge of Greater Manchester bird populations).
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Midland Meres & Mosses – Phase 1 & Phase 2	2 x Ramsar	Water Quality/Hydrology	None - No hydrological pathways between Ramsar site and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching Ramsar site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – habitats and species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Moor House – Upper Teasdale	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Morcombe Bay	SAC/Ramsar/SPA	Water Quality/Hydrology	None - No hydrological pathways between SAC/SPA/Ramsar Site and land within Rochdale. Rochdale rivers do not discharge into Morcombe Bay
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC/SPA/Ramsar Site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Habitats in SAC/SPA/Ramsar Site are restricted to habitat types that do not occur in Greater Manchester. Dispersion of Great Crested Newts is known to be less than 2km. Bird species unlikely to be effected by habitat changes within Rochdale.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Morcombe Bay Pavements	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Habitats and species in SAC are generally restricted to habitat types that do not occur in Greater Manchester
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Naddle Forest	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
North Pennine Dales Meadows	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species. Habitats in SAC are generally restricted to habitat types that do not occur in Greater Manchester
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
North Pennine Moors	SAC/SPA	Water Quality/Hydrology	None - No hydrological pathways between SAC/SPA and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC/SPA (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species. Species unlikely to be effected by changes to habitats in Rochdale.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Oak Mere	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant from for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Peak District Moors (South Pennine Moors Phase 1)	SPA	Water Quality/Hydrology	None - No hydrological pathways between SPA and land within Rochdale
		Air Pollution	None – Any pollutants are likely to have dispersed prior to reaching SPA (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Ribble & Alt Estuaries	SPA/Ramsar	Water Quality/Hydrology	None - No hydrological pathways between SPA/Ramsar Site and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA/Ramsar Site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – habitats and species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
River Dee & Bala Lake	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
River Derwent & Bassenthwaite Lake	SAC	Water Quality/Hydrology	None – no water borne pollution pathways to SAC from Greater Manchester. Strategic impacts of increased development in Rochdale on the water levels in the SAC are considered under the HRA for RSS, where figures for employment land and residential development are set.
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
River Eden	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
River Ehen	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None - No hydrological connections and main species (fresh water pearl mussel) does not occur in Greater Manchester
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
River Kent	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Rixton Clay Pits	SAC	Water Quality/Hydrology	Possible - site lies within 800m of Rochdale
		Air Pollution	Unlikely – air pollution not identified as potentially damaging operation on interest of SAC
		Direct land take	None
		Habitat/Species Disturbance	Possible - site lies within 800m of Rochdale
		Increased recreational Pressure	Possible - site lies within 800m of Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Rochdale Canal	SAC	Water Quality/Hydrology	Possible – parts of the European site are within Rochdale Borough
		Air Pollution	Possible – parts of the European site are within Rochdale Borough
		Direct land take	Possible – parts of the European site are within Rochdale Borough
		Habitat/Species Disturbance	Possible – parts of the European site are within Rochdale Borough
		Increased recreational Pressure	Possible – parts of the European site are within Rochdale Borough
Rostherne Mere	Ramsar	Water Quality/Hydrology	None - No hydrological pathways between Ramsar site and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching Ramsar site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – habitats and species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Roudsea Wood & Mosses	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Sefton Coast	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species. Habitat types do not occur in Greater Manchester
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Solway Firth	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
South Pennine Moors	SAC	Water Quality/Hydrology	Possible – parts of the European site are within Rochdale Borough
		Air Pollution	Possible – parts of the European site are within Rochdale Borough
		Direct land take	Possible – parts of the European site are within Rochdale Borough
		Habitat/Species Disturbance	Possible – parts of the European site are within Rochdale Borough
		Increased recreational Pressure	Possible – parts of the European site are within Rochdale Borough
South Pennine Moors Phase 2	SPA	Water Quality/Hydrology	Possible – parts of the European site are within Rochdale Borough
		Air Pollution	Possible – parts of the European site are within Rochdale Borough
		Direct land take	Possible – parts of the European site are within Rochdale Borough
		Habitat/Species Disturbance	Possible – parts of the European site are within Rochdale Borough
		Increased recreational Pressure	Possible – parts of the European site are within Rochdale Borough

Site Name	Designation	Type of Effect	Likely Effects
South Solway Mosses	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Subberthwaite , Blawith & Torver Low Commons	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Tarn Moss	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Tyne & Nent	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats. Habitat not found in Greater Manchester
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
Ullswater Oakwoods	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Upper Solway Flats & Marshes	SPA/Ramsar	Water Quality/Hydrology	None - No hydrological pathways between SPA/Ramsar Site and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SPA/Ramsar Site (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – species identified highly unlikely to be effected by any habitat changes in Rochdale
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Walton Moss	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Wast Water	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitat. Habitat does not occur in Greater Manchester
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

Site Name	Designation	Type of Effect	Likely Effects
West Midlands Mosses	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Witherslack Mosses	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale
Yewbarrow Woods	SAC	Water Quality/Hydrology	None - No hydrological pathways between SAC and land within Rochdale
		Air Pollution	None – No atmospheric pathways and any pollutants are likely to have dispersed prior to reaching SAC (see EA report).
		Direct land take	None
		Habitat/Species Disturbance	None – Site too distant for any direct or indirect disturbance to habitats and species.
		Increased recreational Pressure	None – site is too distant and numerous recreational facilities closer to Rochdale

APPENDIX 2: Screening Summary of European designated sites within the North West Region and possible impacts from development within Rochdale

Site Name	Designation	Screened in/out	Justification
Asby Complex	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Border Mires, Kielder – Butterburn	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Borrowdale Woodland Complex	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Bowland Fells	SPA	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
Calf Hill & Cragg Woods	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Clints Quarry	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Cumbrian Marsh Fritillary Site	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Dee Estuary	SPA/Ramsar	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
Drigg Coast	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Duddon Estuary	SPA/Ramsar	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Duddon Mosses	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Esthwaite Water	Ramsar	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Irthinghead Mires	Ramsar	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Lake District High Fells	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Leighton Moss	SPA/Ramsar	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA

Site Name	Designation	Screened in/out	Justification
Liverpool Bay	pSPA	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
Manchester Mosses	SAC	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
Martin Mere	SPA/Ramsar	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
Mersey Estuary	SPA/Ramsar	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
Mersey Narrows & Wirral Foreshore	pSPA	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
Midland Meres & Mosses – Phase 1 & Phase 2	2 x Ramsar	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
Moor House – Upper Teasdale	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Morcambe Bay	SAC/Ramsar/SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Morcambe Bay Pavements	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Naddle Forest	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
North Pennine Dales Meadows	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
North Pennine Moors	SAC/SPA	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
Oak Mere	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Peak District Moors (South Pennine Moors Phase 1)	SPA	Out	Although within Greater Manchester the site is considered too distant for significant effects to arise and no known pathways exist between SPA and Rochdale.
Ribble & Alt Estuaries	SPA/Ramsar	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
River Dee & Bala Lake	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA

Site Name	Designation	Screened in/out	Justification
River Derwent & Bassenthwaite Lake	SAC	Out	Site considered too distant for significant effects to arise and strategic impacts considered by RSS HRA
River Eden	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
River Ehen	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
River Kent	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Rixton Clay Pits	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Rochdale Canal	SAC	In	Part within Rochdale MBC boundary
Rostherne Mere	Ramsar	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Roudsea Wood & Mosses	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Sefton Coast	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Solway Firth	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
South Pennine Moors	SAC	Out	Although within Greater Manchester the site is considered too distant for significant effects to arise and no known pathways exist between SAC and Rochdale MB.
South Pennine Moors Phase 2	SPA	In	Part within Rochdale MBC boundary
South Solway Mosses	SAC	Out	Site considered too distant for significant effects to arise
Subberthwaite, Blawith & Torver Low Commons	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Tarn Moss	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA

Site Name	Designation	Screened in/out	Justification
Tyne & Nent	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Ullswater Oakwoods	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Upper Solway Flats & Marshes	SPA/Ramsar	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Walton Moss	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Wast Water	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
West Midlands Mosses	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Witherslack Mosses	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA
Yewbarrow Woods	SAC	Out	Site considered too distant for significant effects to arise and no strategic impacts or pathways identified in RSS HRA

APPENDIX 3 – List of Other relevant Plans and Projects Considered within the Assessment

A3.1 Plans Assessed under the Terms of the Habitats Regulations by GMEU

District	Plan	Outcome of Assessment
Rochdale MBC	SPD 'Energy and New Development'	No effect on European Sites
Rochdale MBC	SPD provision of Recreational Open Space in New Housing Developments	No effect on European Sites
Rochdale MBC	SPD Development of East Central Rochdale	No effect on European Sites
Rochdale MBC	SPD Biodiversity and Development	No effect on European Sites
Rochdale MBC	SPD Affordable Housing	No effect on European Sites
Manchester CC	LDF Core Strategy	No effect on European Sites
Bolton MBC	LDF Core Strategy	No effect on European Sites
Bury MBC	LDF Core Strategy	No effect on European Sites
Rochdale MBC	LDF Core Strategy / Local Plan	Potential Effects on Rochdale Canal SAC
Wigan MBC	LDF Core Strategy	No identified effect on European Sites at this stage – further assessment may be needed at a later stage
GM wide	Greater Manchester Minerals Plan (issues and options report)	No effects on European sites identified
Bury MBC	Local Flood Risk Management Strategy	No effects on European sites identified
Wigan MBC	Local Flood Risk Management Strategy	No effects on European sites identified

A3.2 Plans Assessed under the Terms of the Habitats Regulations by other bodies

District	Plan	Outcome of Assessment
GM - wide	Greater Manchester Waste Plan	No identified effects on European sites