East Ayrshire Local Development Plan 2

Habitats Regulations Appraisal Record

East Ayrshire Council

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Quality information

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1. Introduction

Overview of East Ayrshire Local Development Plan 2

1.1 East Ayrshire's Local Development Plan 2 (LDP2) represents East Ayrshire Council's settled view on how the Council area should be developed over the next 10-20 years. As well as indicating where development should and should not occur, LDP2 is proactive in supporting the creation of successful places.

1.2 LDP2 covers the whole of the East Ayrshire Council (EAC) area and sets out the Council's planning policy framework for all matters. Further details on the preparation and production of development plans in East Ayrshire can be found in the Development Plan Scheme, available from the EAC website (https://www.east-ayrshire.gov.uk/Resources/PDF/D/DevPlanScheme.pdf).

1.3 LDP2 replaces the East Ayrshire Local Development Plan (LDP1) 2017 and the Minerals Local Development Plan (MLDP) 2020. Relevant planning policies which were previously contained within MLDP 2020 are now incorporated into LDP2.

1.4 LDP2 sets out the Vision, Aims and Spatial Strategy for East Ayrshire. The Vision sets out what the Council area will look like in 20 years' time if the policies and proposals of the Plan, as well as the Community Plan and other Council strategies, are carried through successfully. The Spatial Strategy lays out how East Ayrshire will transform and develop to achieve this Vision, across five key areas: Sustainability and green recovery; Place and environment; Economy and employment; Sustainable travel and transport; and Energy and climate resilience. The Spatial Strategy is delivered primarily by the Overarching Policies. Further to these elements, LDP2 sets out planning policies for a wide range of topic areas, which are broadly grouped under the themes set out within the spatial strategy.

1.5 LDP2 also contains maps of all settlements and for the rural area as a whole. These maps illustrate how these settlements are expected to develop over the LDP2 period, and identifies sites considered appropriate for new development and areas safeguarded for specific uses.

1.6 LDP2 as a whole, together with Supplementary Guidance, comprises the Development Plan for East Ayrshire, which will be used to guide, assess, and determine planning applications. The whole Plan must be taken into account when assessing development proposals. This includes the Vision, Spatial Strategy, policies, proposals and all associated Supplementary Guidance and non-statutory guidance. Certain policies or proposals cannot be 'cherry-picked' and used in isolation; all relevant parts of the Plan must be considered.

Legislative context

1.7 Under the Habitats Regulations[1], a network of sites has been designated across Scotland and its marine environment for the purposes of nature conservation. This network comprises sites known as Special Areas of Conservation (SAC) and Special Protection Areas (SPA). SACs are designated for the protection of habitats and non-avian animal species of conservation concern. SPAs are designated to protect rare or vulnerable species of bird, as well as all regularly occurring migratory bird species.

1.8 Prior to the UK's exit from the European Union (EU), Scotland's SACs and SPAs were part of a wider European network of such sites known as the 'Natura 2000 network'. They were consequently referred to as 'European sites'. Now that the UK has left the EU, Scotland's SACs and SPAs are no longer part of the Natura 2000 network but form a part of a UK-wide network of designated sites referred to as the 'UK site network'. However, it is current Scottish Government policy to retain the term 'European site' to refer collectively to SACs and SPAs (including any which are designated following the UK's exit from the EU) (Scottish Government, 2020).

1.9 The Habitats Regulations or, for reserved matters, Conservation of Habitats and Species Regulations 2017 (as amended), require that any development plan or proposal which is not directly connected with or necessary to the conservation of a European site, and which is likely to have a significant effect on such a

[1] The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), more commonly referred to as the 'Habitats Regulations'.

site, must be subject to an 'appropriate assessment' of the implications for the conservation objectives of that site. Generally, such plans or proposals may only be approved if the 'competent authority' has ascertained, by means of an appropriate assessment, that there will be no adverse effect on the integrity of the European site(s).

1.10 The procedure to be applied is known as 'Habitats Regulations Appraisal' (HRA)[2].

1.11 In addition to fully designated European sites, the Habitats Regulations also apply to those sites in the earlier stages of the designation process and which are referred to as 'candidate' or 'proposed' European sites.

1.12 Since LDP2 constitutes a 'plan' within the meaning of the Habitats Regulations, it is necessary for a HRA to be completed. This must establish whether the adoption of LDP2, including its policies and site allocations, could result in adverse effects on the integrity of any European sites.

Structure and purpose of this document

1.13 This HRA Record describes the HRA of LDP2 carried out by AECOM on behalf of East Ayrshire Council, and in consultation with NatureScot. It is structured as follows:

- Section 1 – provides an introduction to LDP2 and the requirements of the Habitats Regulations;
- Section 2 – describes the methodology adopted during the HRA of LDP2;
- Section 3 – describes the scoping process and identifies relevant European sites;
- Section 4 – shows the test of likely significant effects for policies and site allocations; and,
- Section 5 – goes through the appropriate assessment process.

1.14 Ultimately, the purpose of this document is to provide a written record of a robust, legally-compliant Habitats Regulations Appraisal of East Ayrshire Council's LDP2.

Quality assurance

1.15 This document has been prepared in accordance with the AECOM Integrated Management System (IMS). Our IMS places emphasis on professionalism, technical excellence, quality, as well as covering health, safety, environment, and sustainability management. All AECOM staff members are committed to maintaining our accreditation to those parts of BS EN ISO 9001:2015 and 14001:2015, as well as BS OHSAS 18001:2007 that are relevant to a consultancy service.

1.16 All ecologists involved in the HRA of LDP2 are members, at the appropriate level, of the Chartered Institute of Ecology and Environmental Management (CIEEM) and adhere to their strict Code of Professional Conduct.

[2] In the past, the term 'appropriate assessment' has been used to describe both the overall process and a particular stage of that process. The term 'Habitat Regulations Appraisal' has come into use in order to refer to the process that leads to an appropriate assessment, thus avoiding confusion. Throughout this document, HRA is used to refer to the overall procedure required by the Habitats Regulations.

2. Methodology

Sources of guidance and information

2.1 In addition to those sources specifically referenced throughout this document, the following sources of guidance and information were used when carrying out the HRA of East Ayrshire's LDP2:

- *Natura Casework Guidance: How to consider plans and projects affecting Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)* (SNH, 2014);
- *SNH Guidance Note: The handling of mitigation in Habitats Regulations Appraisal – the People Over Wind CJEU judgement* (SNH, 2019);
- NatureScot SiteLink website (https://sitelink.nature.scot/home);
- MAGIC website (https://magic.defra.gov.uk/magicmap.aspx); and,
- The Air Pollution Information Service (http://www.apis.ac.uk/).

Consultation

2.2 East Ayrshire Council and NatureScot were consulted throughout the HRA process. **Table 1** provides a record of the discussions held between all parties, recommendations and/or feedback provided by NatureScot, and responses made by this HRA.

Table 1. Record of consultation

Date and form of consultation	Consultees	Points discussed	Outcome
14 September 202 Meeting held over Microsoft Teams	• NatureScot • East Ayrshire Council	Scope of HRA.	Agreed.
		Knowledge of any projects that could act 'in-combination' and result in likely significant effects.	NatureScot not aware of any.
		Possibility of a threshold size of housing development, below which allocated site could be 'screened out' regardless of location.	NatureScot advised that this was not likely to be feasible due to possibility of in-combination effects. All allocated sites were therefore considered, regardless of size, through the HRA process.
		To what extent is recreational pressure considered to be an issue.	NatureScot advised that, given the size of the relevant European sites, current condition and distances away from allocated sites, recreational pressure is not likely to be a significant issue.
21 October 2021 Draft version of HRA Record submitted to EAC for review and comment	• East Ayrshire Council • NatureScot	Outstanding and new policies provided and some changes to policy references. Additional site allocations and site re-allocations.	HRA record amended accordingly.

Relevant case law

2.3 As a consequence of the UK's exit from the EU, it was necessary for various amendments to be made to the Habitats Regulations. These changes were required to ensure that Scotland continues to maintain the same standard of protection afforded to European sites. The Habitats Regulations remain in force, including the general provisions for the protection of European sites and the procedural requirements to undertake HRA. The changes made were only those necessary to ensure that they remain operable following the UK's exit from the EU.

2.4 Scottish Government published guidance on the changes to the Habitats Regulations in December 2020 (Scottish Government, 2020). This guidance has been considered when preparing this document. However, as made clear by Scottish Government, the procedural requirements for HRA remain unchanged.

2.5 Although the UK is no longer part of the EU, a series of prior rulings of the Court of Justice of the European Union (CJEU) are relevant and have been considered when preparing this document. These rulings and their implications for the HRA of LDP2 are summarised in **Table 2**.

Table 2. Case law relevant to the HRA of LDP2

Case	Ruling	Relevance to the HRA of LDP2
People Over Wind and Sweetman v Coillte Teoranta (C-323/17)	The ruling of the CJEU in this case requires that any conclusion of 'no likely significant effect' on a European site must be made prior to any consideration of measures to avoid or reduce harm to the European site. The determination of likely significant effects should not, in the opinion of the CJEU, constitute an attempt at detailed technical analyses. This should be conducted as part of the appropriate assessment.	NatureScot has published guidance on the implications of this ruling for HRA (SNH, 2019). It will be necessary to distinguish between those measures which are intended to avoid or reduce harmful effects on a European site and those elements of LDP2 that may incidentally provide some degree of mitigation, but which are intrinsic or essential parts of the Plan itself. NatureScot advises that intrinsic parts of a plan can be considered at the screening stage of HRA. If it can be concluded that a specific element of LDP2 will have no adverse effect on any European site, in the absence of mitigation, it will be possible to conclude 'no likely significant effects', and that element will be 'screened out' of appropriate assessment.
Waddenzee (C-127/02)	The ruling in this case clarified that appropriate assessment must be conducted using best scientific knowledge, and that there must be no reasonable scientific doubt in the conclusions drawn. The Waddenzee ruling also provided clarity on the definition of 'significant effect', which would be any effect from a plan or project which is likely to undermine the conservation objectives of any European site.	This ruling should be read in conjunction with Case C-6/04, below.
Commission of the European Communities v UK (C-6/04)	The opinion of Advocate-General Kokott of 9th June 2005 in this case clarified that, while there must be no reasonable scientific doubt in the conclusions of appropriate assessment, "*it would… hardly be proper to require a greater level of detail in preceding plans [rather than planning applications] or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated at one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure*".	A balance must be achieved when carrying out HRA of plans such as LDP2. In certain cases, it will be necessary for assessment to be carried out in greater detail at subsequent stages (e.g., during the design and consenting stage(s) of a particular project).
Holohan and Others v An Bord Pleanála (C-461/17)	The conclusions of the Court in this case were that consideration must be given during appropriate assessment to: • effects on qualifying habitats and/or species of a SAC or SPA, even when occurring outside of the boundary of a European site, if these are relevant to the site meeting its conservation objectives; and, • effects on non-qualifying habitats and/or species on which the qualifying habitats and/or species depend and which could result in adverse effects on the integrity of the European site.	This relates to the concept of 'functionally-linked habitat', i.e., areas outside of the boundary of a European site which supports its qualifying feature(s). In addition, consideration must be given to non-qualifying features upon which qualifying habitats and/or species rely. These concepts must be included and addressed in the HRA of LDP2, to the extent possible for a high-level plan of this type.
T.C Briels and Others v Minister van	The ruling of the CJEU in this case determined that compensatory measures cannot be used to	Compensation can only be considered at the relevant stage of HRA and not during appropriate

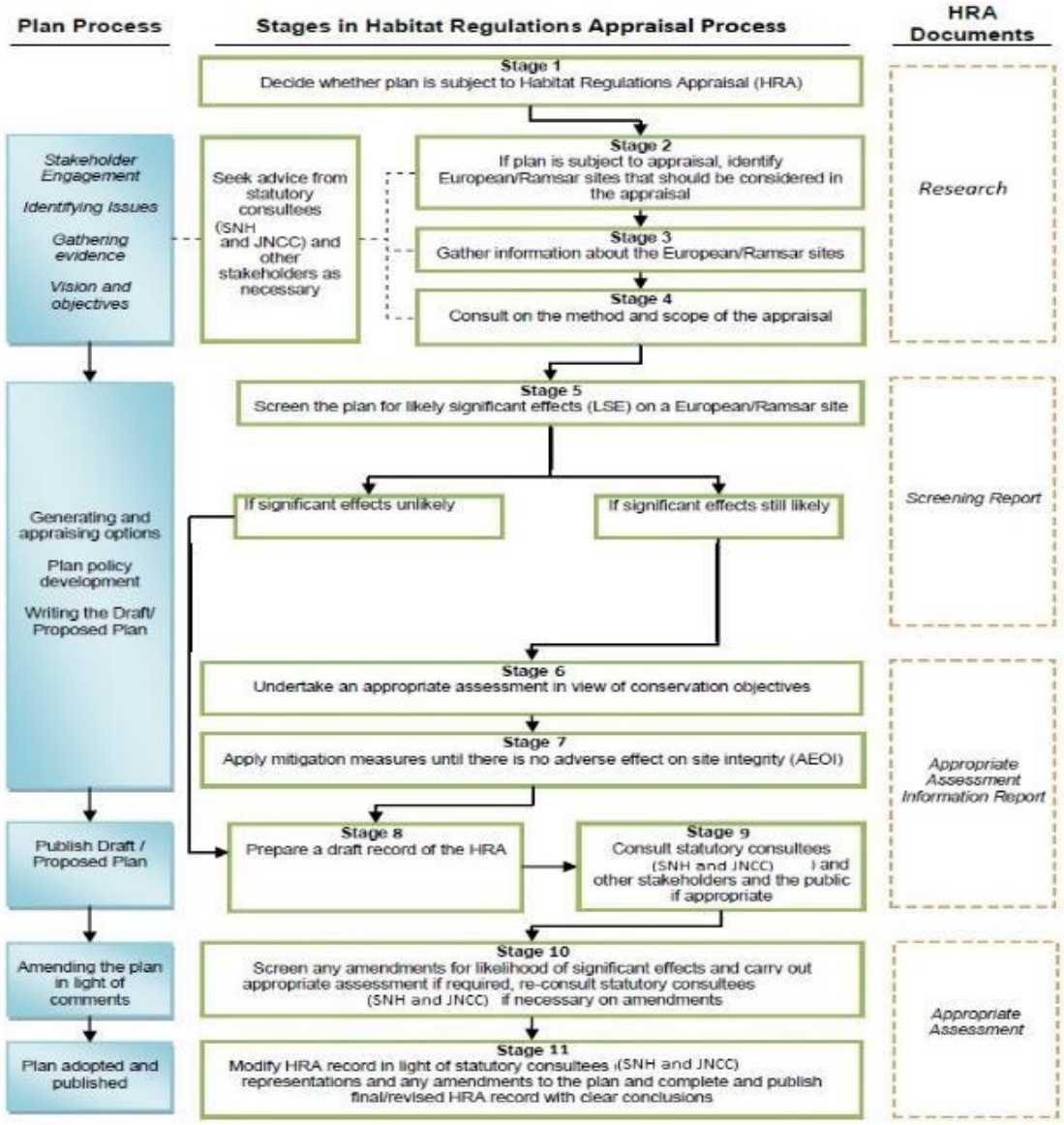
Infrastructuur en Milieu (C-521/12)	support a conclusion of no adverse effect on site integrity.	assessment. Compensation must be delivered when appropriate assessment concludes that there will be adverse effects on site integrity.
Sweetman v An Bord Pleanála (C-258/11)	The CJEU ruled that the protection afforded to a European site applies once that site has been formally identified as a candidate European site.	A candidate SAC / proposed SPA receives the same legal protection as a fully designated site and must be treated as such by HRA.
	Furthermore, the court also concluded that where a plan or project will lead to the permanent loss of a priority habitat (i.e., one which is listed on Annex I of the Habitats Directive[3]) and which is a qualifying feature of a European site, the view should be taken that such a plan or project will adversely affect the integrity of that site.	The loss of even a very small area of priority habitat listed on Annex I of the Habitats Directive, where such habitat is a qualifying feature of an SAC, will almost certainly be considered to result in adverse effects on the integrity of that site.

Overview of the HRA process

2.6 The Habitats Regulations do not prescribe a particular methodology for carrying out an appraisal of plans. NatureScot recommend an approach, as described in SNH (2015), which is outlined as a series of thirteen steps. However, with cognisance of recent case law (refer to **Table 2**) clarifying when mitigation can be taken into account in the HRA process, AECOM has revised the process to constitute eleven stages (see **Diagram 1**[4]). Further guidance published by NatureScot on HRA (SNH, 2014) also sets out the methods for assessing whether plans will affect a European site.

[3] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, more commonly referred to as the European Union 'Habitats Directive'.
[4] Where 'SNH' is referenced in Diagram 1, this should be read as 'NatureScot'.

Diagram 1. Stages of the HRA process (taken from SNH (2015))



2.7 A four-stage methodology for HRA would therefore include:

- HRA Stage 1 – scoping and data gathering;
- HRA Stage 2 – test of likely significant effects (also known as 'screening')
- HRA Stage 3 – appropriate assessment; and,
- HRA Stage 4 – avoidance and mitigation.

2.8 Further details of the appraisal required in each of the four stages is provided under the following sub-headings.

HRA Stage 1 – scoping and data gathering

2.9 It is necessary to identify which European sites may be relevant to the HRA by virtue of there being potential pathways for impacts arising from the policies and/or site allocations of a plan.

2.10 There is no pre-defined guidance that dictates the physical scope of a HRA of a plan document. Therefore, in considering the geographic scope of the HRA for LDP2, the source-pathway-receptor model was used, rather than simply relying on arbitrary 'zones'. The source-pathway-receptor approach is a standard tool in environmental assessment. In order for an effect to occur, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism means there is no likelihood for

an effect to occur. Where an impact is predicted to occur, this does not necessarily imply that the effect is significant.

2.11 To further clarify, a source would be an impact which arises due to a policy or site allocation contained within LDP2. This could be, for example, waterborne pollution generated during construction activities. A pathway is a connection between the impact source and a European site. An example would be the aforementioned pollution travelling downstream via a watercourse. In the case of HRA, the receptor is a qualifying feature of a European site, or something upon which a qualifying feature relies (e.g., habitat). Accordingly, waterborne pollution (source) generated during construction may travel several hundred metres (or further) downstream via a watercourse (pathway) to the spawning habitat of a fish species which is a qualifying feature of a European site (receptor). Should the impact be sufficiently large, this may cause reduced breeding success of the fish, and have a significant effect, for example where this causes the favourable conservation status of the species to be lost.

2.12 Using the source-pathway-receptor approach, all European sites within East Ayrshire were considered during the HRA of LDP2. In addition, European sites in the neighbouring local authorities of North Ayrshire, South Ayrshire, Dumfries and Galloway, South Lanarkshire and East Renfrewshire, and any further afield which could also be affected by policies or site allocations of LDP2 were also considered.

2.13 Once the scope of the HRA has been established, data gathering can take place. This involves collecting information on relevant European sites, their conservation objectives, and any known threats or pressures acting on the sites.

2.14 The scoping and data gathering stages of the HRA of LDP2 are reported in **Section 3** of this document.

HRA Stage 2 – screening

2.15 The first step in the sequence of tests is to establish whether an appropriate assessment (AA) is required. This is often referred to as 'HRA screening'. The purpose of HRA screening is to determine, in view of best available scientific knowledge, whether a plan, either alone or in combination with other plans or projects, could have likely significant effects on the qualifying features of a European site. For this purpose, and as a result of case law (see **Table 2**) 'likely' means 'possible'. Moreover, a 'significant' effect is one which could undermine the conservation objectives of a European site (SNH, 2015).

2.16 In relation to LDP2, the objective is therefore to 'screen out' those elements of the Plan – including policies and site allocations – for which it can be stated, without any detailed appraisal, that significant effects are unlikely on any European site.

2.17 Where likely significant effects cannot be excluded, or if there is reasonable scientific doubt, then a policy or site allocation is 'screened in' and the next stage in the process must be initiated and a detailed appropriate assessment undertaken.

2.18 The screening stage of the HRA of LDP2 is reported in **Section 4** of this document.

HRA Stage 3 – appropriate assessment

2.19 Where it is determined that a conclusion of 'no likely significant effect' cannot be drawn, the analysis must proceed to the next stage of HRA, known as 'appropriate assessment'. Case law has clarified that 'appropriate assessment' is not a technical term. In other words, there are no particular technical analyses, or level of technical analysis, that are classified by law as belonging to appropriate assessment rather than determination of likely significant effects.

2.20 By virtue of the fact that it follows the screening process, there is a clear implication that the analysis will be more detailed than completed at the previous stage. One of the key considerations during appropriate assessment is whether there is available mitigation that would entirely address the potential effect(s). In practice, the appropriate assessment would take any policies or allocations that could not be dismissed following the high-level screening analysis and assess the potential for an effect in more detail, with a view to concluding whether there would actually be an adverse effect on site integrity (in other words, disruption of the coherent structure and function of the European site(s)).

2.21 In evaluating significance, AECOM relies on professional judgement as well as the results of bespoke studies, supported by appropriate evidence / data, and previous stakeholder consultation regarding development impacts on the European sites considered within this assessment.

2.22 The appropriate assessment stage of the HRA of LDP2 is reported in **Section 5** of this document.

HRA Stage 4 – avoidance and mitigation

2.23 Where necessary, measures are recommended for incorporation into the Plan in order to avoid or mitigate adverse effects on European sites. There is considerable precedent concerning the level of detail that a Local Development Plan document needs to contain regarding mitigation for recreational impacts on European sites. The implication of this precedent is that it is not necessary for all measures that will be deployed to be fully developed prior to adoption of the Plan, but the Plan must provide an adequate policy framework within which these measures can be delivered.

2.24 No significant adverse effects from LDP2 on any European site were identified by this HRA. Consequently, no requirement for Stage 4 of the HRA process was required.

A proportionate assessment

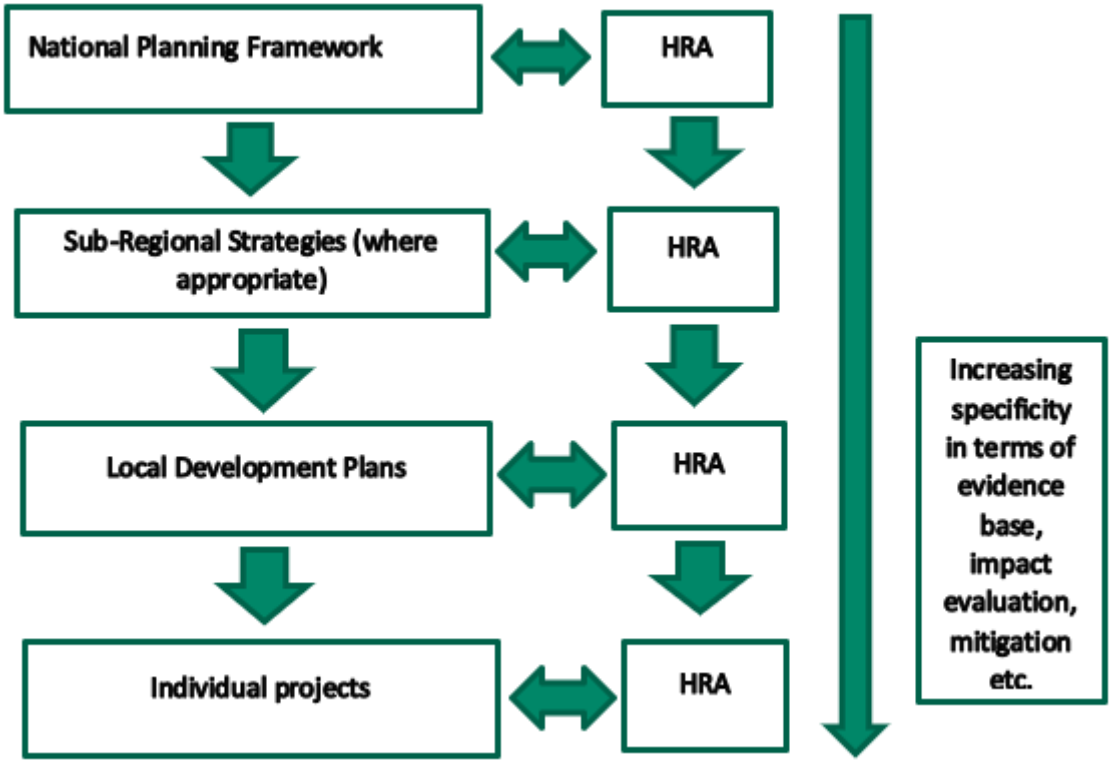
2.25 HRA of projects (as opposed to plans) often requires bespoke survey work and novel data generation in order to accurately determine the significance of effects. In other words, it is necessary to look beyond the risk of an effect to a justified prediction of the actual likely effect and to the development of avoidance or mitigation measures.

2.26 Advocate-General Kokott[5] has commented regarding HRA in a multi-tiered planning system that *"it would …hardly be proper to require a greater level of detail in preceding plans* [rather than planning applications] *or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure"* [emphasis added].

2.27 In other words, there is a tacit acceptance that HRA can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers as illustrated in **Diagram 2**. For example, when considering loss of functionally-linked habitat, different levels of investigation are appropriate to Local Development Plans than to subsequent planning applications. The fullest level of detail would be necessary for planning applications as that is the last level at which impacts on European sites can be investigated. In contrast, detailed surveys would normally be disproportionate for a Local Development Plan, given that European sites can be protected in the absence of such surveys by having a strong policy dictating the need for further investigation and prohibiting development until any such surveys are complete.

[5] Opinion of Advocate General Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, paragraph 49. http://curia.europa.eu/juris/document/document.jsf?docid=58359&doclang=EN.

Diagram 2. Tiering of HRA through the planning system



2.28 In any Local Development Plan, there are numerous policies for which there is a limit to the degree of assessment that is possible at this level in the planning system. This is because either:

- the policy in question does not contain any specifics as to what will be delivered or where so literally cannot be assessed in detail at the plan level. In these cases, the appropriate assessment focusses on precautionary mitigation that can be included in the plan to ensure that whatever proposals come forward will not result in adverse effects on European site integrity; or,
- development of a specific type is identified but the nature of the potential impacts are dependent on exactly how it will be designed and/or constructed, or on the results of site-specific survey data, and therefore cannot be assessed in detail at the plan level. In these instances, the appropriate assessment focusses on the available mitigation measures, the extent to which such measures would be achievable and effective, and whether an adequate protective framework exists to ensure that the policy would not lead to an adverse effect on the integrity of any European site.

Policy screening

2.29 Based on guidance published by NatureScot (SNH, 2015), policies were screened out of having likely significant effects on a European site where any of the following reasons applied:

- they are environmentally positive;
- they will not themselves lead to any development or other change;
- they make provision for change but could have no conceivable effect on a European site. This can be because there is no pathway between the policy and the qualifying features or a European site, or because any effect would be positive;
- they make provision for change but could have no significant effect on a European site (i.e., the effect would not undermine the conservation objectives of a European site); or,
- the effects of a policy on any particular European site cannot be ascertained because the policy is too general. For example, a policy may be screened out if, based on absence of detail in the policy, it is not possible to identify where, when, or how the policy may be implemented, where effects may occur, or which sites, if any, may be affected.

2.30 Any 'criteria-based' policy (i.e., those that simply list criteria with which development needs to comply) or other general policy statements that have no spatial element were also screened out. Likewise, policies that simply 'safeguard' an existing resource (e.g., existing green infrastructure or mineral resources) by preventing other incompatible development, were also screened out.

2.31 The appraisal therefore focussed on those policies with a definable spatial component. Having established which policies required scrutiny by virtue of being spatially defined, consideration was given as to whether likely significant effects could be dismissed due to a lack of connectivity to any European site for one of the following reasons:

- a potentially damaging activity may occur as a result of the policy but there is no pathway connecting it to a European site (due to distance, for example);
- there are no European sites vulnerable to any of the activities that the policy will deliver; or,
- the policy will not result in any damaging activities.

Site allocation screening

2.32 The site allocations contained within LDP2 were reviewed. All possible impacts which could arise from the type of development which has been directed to each site (e.g., housing, industrial etc.) were identified, in addition to any possible pathways to European sites or the qualifying features of European sites. This was done using the source-pathway-receptor model, assisted by the impact pathway buffers and species-specific buffers described above.

2.33 Consideration was given to the qualifying features of identified European sites, including their ecology, vulnerabilities, the site conservation objectives, and the way in which development at a given location may prevent a site from meeting its conservation objectives. On this basis, European sites which could be subject to likely significant effects from each proposal were identified.

2.34 Where a clear or potential pathway was identified by which impacts could give rise to likely significant effects on the qualifying features of a European site, in the absence of any mitigation, a site allocation was screened in. Furthermore, since the purpose of HRA screening is to constitute an initial sift without undertaking detailed technical analyses, the assessment erred on the side of caution and screened in likely significant effects on European sites unless there was a high degree of confidence that they could be dismissed.

In-combination assessment

2.35 In-combination (i.e., cumulative) effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location (CIEEM, 2018).

2.36 It is a requirement of the Habitats Regulations that the impacts of any plan are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question.

2.37 When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation; i.e., to ensure that those projects or plans (which in themselves may have minor impacts) are not simply dismissed on that basis but are evaluated for any cumulative contribution they may make to an overall significant effect. In practice, in-combination assessment is therefore of greatest relevance when the plan or policy would otherwise be screened out because its individual contribution is inconsequential.

2.38 Consideration was therefore given to the potential for the plans and projects in East Ayrshire and further afield (including national plans or programmes) to act in-combination with any policies or site allocations of LDP2 to result in likely significant effects.

2.39 It is neither practical nor necessary to assess the in-combination effects of LDP2 within the context of all other plans and projects within the region. No specific projects were identified by AECOM, EAC or NatureScot which could act in-combination with LDP2 to result in significant effects. The in-combination assessment was therefore limited to consideration of other plans, the principal of those being:

- North Ayrshire Local Development Plan 2 (adopted November 2019);
- South Ayrshire Local Development Plan (adopted September 2014, proposed Local Development Plan 2 submitted to the Scottish Ministers in March 2021);

- South Lanarkshire Local Development Plan 2 (adopted April 2021);
- Dumfries and Galloway Local Development Plan 2 (adopted October 2019); and,
- East Renfrewshire Local Development Plan 2 (adopted March 2022)).

3. Scoping and data gathering

Impact sources

3.1 When applying the source-pathway-receptor approach, the potential impacts which could arise from policies or site allocations were considered. Although the specific impacts which could arise may differ, broadly speaking, development promoted by policies or brought forward in a particular site allocated for development of a particular type could give rise to various categories of impact. The broad categories of impact sources which could are set out in **Table 3**.

Table 3. Categories of impact source which could arise from policies or site allocations of LDP2

Impact category	Brief description
Direct loss of habitat	The direct loss of habitat from within the boundary of a European site. This may include the loss of a habitat type which is itself a qualifying feature of a site, or the loss of habitat that is used by qualifying species for commuting, foraging and/or sheltering.
Loss of functionally-linked habitat	The loss of habitat which is outside of the boundary of a European site, but which is critical to its functioning. For example, the loss of habitat outside of an SPA which is used for foraging purposes by qualifying bird species which nest within the SPA.
Waterborne pollution	Including, for example, suspended sediment or run-off of water containing other pollutants such as hydrocarbons or chemicals. Effluent discharges would also be included in this category.
Airborne pollution	This encompasses both dust (i.e., particles of sufficiently large size to coat vegetation and interfere with photosynthesis) and atmospheric pollutants that can be toxic to vegetation or contribute to nitrogen deposition (and thus eutrophication). The latter mainly constitutes oxides of nitrogen (NOx) associated with combustion such as vehicle exhausts, and ammonia (NH_3) associated particularly with industrial processes and agriculture, but also with vehicle exhausts.
Hydrological changes	Impacts which alter the hydrological conditions either within a European site or in an area used by the qualifying features of a European site. For example, reduced flows in a watercourse due to impoundment, or changes to groundwater flows or volumes due to abstraction. These changes can have multiple effects on habitats and species.
Disturbance of qualifying species	This could be physical disturbance, for example due to the movement of vehicles in proximity to qualifying species, or due to noise and/or vibration. The latter may occur at greater distances. Disturbance could arise either during the construction or operational phase of a development. Recreational disturbance caused by increased human presence is also included in this category.
Barriers and/or displacement	Barriers to the movement of qualifying species, which can either be physical (for example a dam in a river) or physiological (for example, the attraction of migratory fish towards the outflow of a hydro-electric scheme). Displacement may also occur due to the presence of new infrastructure (for example a wind farm).
Injury or mortality	The direct injury or mortality of a qualifying species, either during the construction or operation of a new development. For example, injury or death of a bird due to collision with an operational wind turbine.
Changes to predator-prey dynamics	This could arise in multiple ways but such changes could have detrimental impacts on qualifying species. An example may be the installation of perching sites (e.g. new security fencing around infrastructure) in an otherwise open area of habitat used by nesting waders. The provision of features which can be used for perching by raptors can increase predation rates of nesting waders.
Spread of invasive non-native species	Invasive non-native species can have detrimental impacts on native species and habitats. Their spread can occur during construction and operation of a development, and via multiple pathways (for example via watercourses or on the treads of construction machinery).

Impact pathways

3.2 In order for an impact to have an effect on a qualifying feature of a European site, a pathway between the impact source and that feature must exist.

3.3 For each of the types of impact which could arise (as set out in **Table 3**) the maximum distance at which an effect could occur was assessed based on the pathway(s) by which such impacts could reach a European site or its qualifying feature(s). These ‘impact pathway buffers’ were based on best available research, wherever possible. The adopted impact pathway buffers are set out in **Table 4**.

Table 4. Impact pathway buffers

Impact category	Buffer distance
Direct loss of habitat	Within European site boundary.
Loss of functionally-linked habitat	Depends on the species in question. NatureScot in SNH (2016) suggest that certain species of geese may forage up to 15-20 km from boundary of SPA for which they are qualifying features. This is likely to be the largest distance at which functionally-linked habitat may be located from a European site. More generally, functionally-linked habitat likely to be within maximum of 10 km (though often considerably less than this) from European site boundary for most species.
Waterborne pollution	No buffer used – relies on their being a hydrological connection to a European site according to the source-pathway-receptor model.
Airborne pollution	• 50-500 m for dust generation. • 200 m for emissions from road traffic.
Hydrological changes	No buffer used – relies on their being a hydrological connection to a European site according to the source-pathway-receptor model.
Disturbance of qualifying species	• 500 m for general noise and/or visual disturbance. • 1.5-10 km for increased recreational disturbance.
Barriers and/or displacement	Not possible to set buffer. Depends on movements of species, which may be very long-distance for those which migrate.
Injury or mortality	Injury or mortality only likely to occur within European site boundary or when species are using functionally-linked habitat. Therefore see row above relating to loss of functionally-linked habitat.
Changes to predator-prey dynamics	Difficult to set a buffer distance. Effects likely to be largest (most significant) where impact occurs within European site boundary. Potential for effects (which may be significant) in functionally-linked habitat.
Spread of invasive non-native species	Generally within 100 m, except where hydrological connectivity could result in spread further afield.

Relevant European sites scoped in to HRA of LDP2

3.4 To identify which European sites should be scoped in to the HRA of LDP2, the impact pathway buffers set out in **Table 4** were used as a guide. It can be seen from **Table 4** that the impacts which could occur over the largest distance (excluding instances where there is a hydrological connection) are the loss of functionally-linked habitat used by foraging non-breeding goose species (20 km), and impacts related to recreational disturbance (can be up to 10 km).

3.5 There are no European sites within East Ayrshire or within 20 km of the Council boundary which are designated for non-breeding geese. The loss of functionally-linked habitat for these species is therefore not a relevant impact to this HRA.

3.6 Nine catchments have been identified within or partially within East Ayrshire: River Ayr, River Clyde, River Dee (Solway), River Doon, River Garnock, River Irvine, River Nith, Water of Girvan and White Cart Water. All surface waterbodies in East Ayrshire are within either the Clyde or Solway sub basins. Although a hydrological connection exists, there are no SACs within the Clyde basin which are designated for fish species, which could migrate upstream to rivers within East Ayrshire. The only European site within the Clyde basin which appears to be potentially hydrologically connected to East Ayrshire is the Inner Clyde SPA. This is approximately 16 km from East Ayrshire ('as the crow flies'; it is likely to be considerably further than this following watercourses). At this distance, there is no realistic possibility of pollution arising in East Ayrshire that might be associated with delivering a Local Development Plan affecting this site due to the very large dilution factors that would be experienced. Moreover, the site is designated for non-breeding redshank *Tringa totanus* which do not rely on watercourses, but rather on the mudflats of the intertidal area within the Firth of Clyde. Finally, there is other legislation[6] which makes it an offence to cause pollution of waterbodies, regardless of any potential effects this may have on European sites.

3.7 There is also a direct hydrological connection between East Ayrshire and the Solway basin via the River Nith. This flows from East Ayrshire and into the Solway Firth SAC, which is designated for river lamprey *Lampetra fluviatilis* and brook lamprey *Lampetra planeri*, in addition to several habitats. The Solway Firth

[6] Including the Water Environment and Water Services (WEWS) (Scotland) Act 2003 and the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).

SAC also overlaps with the Solway Firth SPA and the Upper Solway Flats and Marshes Ramsar site, which are both designated for non-breeding bird species. The Solway Firth is more than 50 km from the point where the River Nith flows out of East Ayrshire. Therefore, as for the Inner Clyde SPA, there is no possibility of pollution impacts affecting designations within the Solway Firth due to the low likelihood of a significant pollution incident arising from delivering the LDP and the massive dilution which will occur prior to reaching this area. However, LDP2 does have the potential to impact upon the qualifying lamprey species of the Solway Firth SAC should fish migrate from this designation to watercourses within the Council area.

3.8 Therefore, the geographic scope of the appraisal, and thus the European sites which may be relevant to the HRA of LDP2, was taken to include all European sites within East Ayrshire plus a 10 km buffer of the Council area, in addition to the Solway Firth SAC due to potential connectivity for lamprey into watercourses in East Ayrshire. In using the 10 km buffer around the Council area, and accounting for hydrological connections to more distant sites, all European sites which could be affected by impacts arising from LDP2 have been identified.

3.9 There are three European sites within the boundary of the East Ayrshire Council area:

- Airds Moss SAC;
- Merrick Kells SAC (which also lies partly within Dumfries and Galloway); and,
- Muirkirk and North Lowther Uplands SPA (which also lies partly within Dumfries and Galloway, and in South Lanarkshire).

3.10 In addition, there are six European sites in neighbouring counties within 10 km of the boundary of East Ayrshire:

- Dykeneuk Moss SAC
- Cockinhead Moss SAC;
- Bankhead Moss, Beith SAC;
- Upper Nithsdale Woods SAC;
- Galloway Oakwoods SAC; and,
- Coalburn Moss SAC.

3.11 **Table 5** provides further details of the European sites scoped in to the HRA of LDP2, including qualifying features, threats / pressures to site integrity and potential impact pathways linking to LDP2.

3.12 The locations of all ten European sites are illustrated on **Figure 1, Appendix A**.

3.13 Further details on each European site, including qualifying features and conservation objectives, are provided in **Appendix B.**.

Table 5. Summary of European sites scoped into HRA

Site name	Location	Qualifying feature(s) (and latest assessed condition of feature)	Identified negative pressures	Potential for impact pathways between European site and LDP2
Airds Moss SAC	Within East Ayrshire Council area boundary	• Blanket bog* (Unfavourable No Change)	• Forestry operations • Over-grazing • Water management	This European site lies entirely within East Ayrshire and could be subject to significant effects from the policies and/or site allocations of LDP2. In particular, development which results in waterborne or airborne pollution is most likely to impact on this site designated for blanket bog.
Merrick Kells SAC	Within East Ayrshire Council area boundary (also lies partly within Dumfries and Galloway, and in South Ayrshire)	• Blanket bog* (Unfavourable Recovering) • Depressions on peat substrates (Favourable Recovered) • Dry heaths (Favourable Recovered) • Acid stained peat lakes and ponds (Favourable Maintained) • Wet heathland with cross-leaved heath *Erica tetralix* (Unfavourable Recovering) • Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels (Favourable Maintained) • Montane acid grasslands (Unfavourable No change) • Plants in crevices on acid rocks (Favourable Maintained) • Acidic scree (Favourable Maintained) • Otter *Lutra lutra* (Favourable Maintained)	• Agricultural operations • Burning • Water quality • Over-grazing • Recreation / disturbance • Invasive species (including bracken *Pteridium aquilinum*) • Forestry operations	This European site partially lies within East Ayrshire and could be subject to significant effects from the policies and/or site allocations of LDP2. Recreation / disturbance is currently identified as an existing negative pressure on this site. Increases in housing supply, and thus the local population, in the area around this site could exacerbate this pressure. Otters occupy a home range, which is a well-defined area where individuals feed, rest and reproduce (Woodroffe, 2001). The size of an otter's range depends on the quality of the habitat and food supply (Kruuk, 1995). A typical home range may include a river, burns, ponds and adjacent woodlands and wetlands. Radio-tracking showed that in the River Dee catchment, male home range sizes averaged 32 km, but may be as long as 80 km, with female ranges averaging 20 km (Kruuk, 1995). Female and young otter foraged and spent most of their time in small burns and lochs while males were usually based on larger rivers such as the Dee, with frequent forays into the female areas (Kruuk, 1995).
Muirkirk and North Lowther Uplands SPA	Within East Ayrshire Council area boundary (also lies partly within Dumfries and Galloway, and in South Lanarkshire)	• Breeding golden plover *Pluvialis apricaria* (Unfavourable Declining) • Breeding hen harrier *Circus cyaneus* (Unfavourable Declining) • Non-breeding hen harrier (Unfavourable Declining) • Breeding merlin *Falco columbarius* (Unfavourable No change) • Breeding peregrine *Falco peregrinus* (Unfavourable No change) • Breeding short-eared owl *Asio flammeus* (Favourable Maintained)	• Burning • Climate change • Forestry operations • Under-grazing • Agricultural operations • Game / fisheries management • Over-grazing	This European site partially lies within East Ayrshire and could be subject to significant effects from the policies and/or site allocations of LDP2. Although not identified as an existing pressure, the qualifying bird species of this site are sensitive to human disturbance. Any increase in housing supply, and thus the local population, in the area around this site could result in significant effects. The core ranges for the qualifying species are between 2 – 5 km during the breeding season (SNH, 2016).
Dykeneuk Moss SAC	Situated entirely within North Ayrshire, approximately 1.3 km	• Active raised bog* (Favourable Maintained)	• Water management	There is no obvious hydrological connection between land which lies within East Ayrshire and this site in North Ayrshire.

Site name	Location	Qualifying feature(s) (and latest assessed condition of feature)	Identified negative pressures	Potential for impact pathways between European site and LDP2
	north-west of East Ayrshire Council area boundary.			Bogs are sensitive to air quality impacts, in particular nitrogen deposition which arises from combustion, for example by road traffic or industrial activities. Therefore, development within East Ayrshire which impacts on air quality has the potential to adversely affect this European site. Recreational pressure is not considered an impact pathway for bogs due to the wet conditions and uneven terrain which are unlikely to attract visitors.
Cockinhead Moss SAC	Situated entirely within North Ayrshire, approximately 1.4 km north-west of East Ayrshire Council area boundary.	• Active raised bog* (Unfavourable Recovering) • Degraded raised bog (Unfavourable Declining[1])	• Invasive species • Water management	There is no obvious hydrological connection between land which lies within East Ayrshire and this site in North Ayrshire. Air quality is identified in the Conservation Advice Package as a negative pressure acting on this site and according to APIS, the critical load for nitrogen deposition is already exceeded at this SAC. Bogs are sensitive to air quality impacts, including from nitrogen deposition. Therefore, development within East Ayrshire which impacts on air quality has the potential to adversely affect this European site. Recreational pressure is not considered an impact pathway for bogs due to the wet conditions and uneven terrain which are unlikely to attract visitors.
Bankhead Moss, Beith SAC	Situated entirely within North Ayrshire, approximately 3.1 km north-west of East Ayrshire Council area boundary.	• Active raised bog* (Favourable Maintained)	• Invasive species • No proactive management	There is no obvious hydrological connection between land which lies within East Ayrshire and this site in North Ayrshire. Air quality is identified in the Conservation Advice Package as a negative pressure acting on this site and according to APIS, the critical load for nitrogen deposition is already exceeded at this SAC. Bogs are sensitive to air quality impacts, including from nitrogen deposition. Therefore, development within East Ayrshire which impacts on air quality has the potential to adversely affect this European site. Recreational pressure is not considered an impact pathway for bogs due to the wet conditions and uneven terrain which are unlikely to attract visitors.
Upper Nithsdale Woods SAC	The nearest component area of this multi-part site is located in Dumfries	• Mixed woodland on base-rich soils associated with rocky slopes (Unfavourable Declining[1])	• Invasive species • Over-grazing	Air quality is not currently identified as a negative pressure acting on this site. However, according to APIS, the critical load

Site name	Location	Qualifying feature(s) (and latest assessed condition of feature)	Identified negative pressures	Potential for impact pathways between European site and LDP2
	and Galloway, approximately 6.5 km south-east of East Ayrshire.			for nitrogen deposition is already exceeded at this SAC. Broadleaved woodland is sensitive to air quality impacts, including from nitrogen deposition. Therefore, development within East Ayrshire which impacts on air quality has the potential to adversely affect this European site.
Galloway Oakwoods SAC	The nearest component area of this multi-part site is located in Dumfries and Galloway, approximately 7.5 km south-west of East Ayrshire.	• Western acidic oak *Quercus* sp. woodland (Unfavourable Declining[1])	• Invasive species • Over-grazing	Air quality is not currently identified as a negative pressure acting on this site. However, according to APIS, the critical load for nitrogen deposition is already exceeded at this SAC. Broadleaved woodland is sensitive to air quality impacts, including from nitrogen deposition. Therefore, development within East Ayrshire which impacts on air quality has the potential to adversely affect this European site.
Coalburn Moss SAC	Situated entirely within South Lanarkshire, approximately 7.5 km north-east of East Ayrshire.	• Active raised bog* (Favourable Maintained) • Degraded raised bog (Unfavourable Recovering)	• Grazing (other) • Invasive species	There is no obvious hydrological connection between land which lies within East Ayrshire and this site in South Lanarkshire. . Air quality is identified in the Conservation Advice Package as a negative pressure acting on this site and according to APIS, the critical load for nitrogen deposition is already exceeded at this SAC. Bogs are sensitive to air quality impacts, including from nitrogen deposition. Therefore, development within East Ayrshire which impacts on air quality has the potential to adversely affect this European site. Recreational pressure is not considered an impact pathway for bogs due to the wet conditions and uneven terrain which are unlikely to attract visitors.
Solway Firth SAC	The closest boundary of the Solway Firth SAC is approximately 51 km in a straight line from the point where the River Nith flows out of East Ayrshire and into Dumfries and Galloway. The actual distance along this watercourse will be considerably longer.	• Atlantic salt meadows (Favourable Maintained) • Estuaries (Not assessed) • Dune grassland (Unfavourable No change[1]) • River lamprey (Not Assessed) • Intertidal mudflats and sandflats (Not Assessed) • Coastal shingle vegetation outside the reach of waves (Unfavourable Declining) • Sea lamprey (Not Assessed) • Reefs (Not Assessed) • Glasswort *Salicornia* sp. and other annuals colonising mud and sand (Favourable Maintained)	• Invasive species • Grazing • Burning • Flood / coastal defence works • Recreation / disturbance	Sea and river lamprey often spawn in the lower reaches of rivers but also migrate 50 miles or more upstream (Kurz and Costello, 1999). Therefore, development within East Ayrshire which impacts on water quality has the potential to adversely affect this European site.

Site name	Location	Qualifying feature(s) (and latest assessed condition of feature)	Identified negative pressures	Potential for impact pathways between European site and LDP2
		• Subtidal sandbanks (Favourable Maintained)		

* Indicates a 'priority' habitat of Annex I of the Habitats Directive.
[1] Management measures are in place that should, in time, improve the feature to Favourable condition.

4. Test of likely significant effects

Policy screening

4.1 The results of the test of likely significant effects arising from the policies of LDP2 are presented in **Table 6**.

4.2 Based on the rationale provided in **Table 6**, likely significant effects are excluded for all policies contained within LDP2.

Table 6. HRA screening of LDP2 policies

Policy reference	Test of likely significant effects	HRA screening outcome
SS1: Climate Change	This policy is aimed at reducing the effects of climate change and contributing to change targets. The policy is intended to ensure that the Council will give significant weight to the Global Climate Emergency when considering all development proposals.	Screened out
SS2: Overarching Policy	This is a general criteria-based policy setting out various requirements for development proposals. Several of the requirements are intended to protect the environment, and, overall, the policy is intended to ensure development is sustainable.	Screened out
SS3: Central Scotland Green Network	This is a policy of intent to support proposals which facilitate and contribute to the enhancement of the Central Scotland Green Network, including those which contribute to projects highlighted within the Green Infrastructure Strategy.	Screened out
SS4: Development of Vacant and Derelict Land	This policy aims to support the Spatial Strategy. The Council will support the re-use and redevelopment of sites that are: (i) defined as vacant or derelict land in the most recent vacant and derelict land survey and; (ii) located within settlement boundaries therefore there is no likelihood of significant effects.	Screened out
SS5: Coalfield Communities Landscape Partnership	This is a general policy that neither provides any specific site locations nor will in itself lead directly to development. It safeguards against development which would prevent the Coalfield Communities Landscape Partnership from meeting its long-term goals.	Screened out
SS6: Galloway and Southern Ayrshire Biosphere	This policy encourages development and proposals supporting the aims of the Biosphere but does not specify what this would involve or where it may occur.	Screened out
SS7: Galloway National Park	This policy supports the proposals for a Galloway National Park and aims to protect it against developments that may result in an adverse effect.	Screened out
PROP1: South Central Kilmarnock	This policy proposes ongoing discussions between the Key Agencies Group and a range of stakeholders to continue during the LDP2 period with a view to identifying solutions that may allow for redevelopment in South Central Kilmarnock so that a masterplan for the area may be included in Local Development Plan 3 (LDP3).	Screened out
SS8: Development in South Central Kilmarnock	This policy supports development in a specific location. However, any development within south central Kilmarnock is very unlikely to have a significant effect on any European site due to the urban location of such development, and the distance to the nearest such site, at least 10 km away.	Screened out
SS9: Ayrshire Growth Deal	Although this policy refers to the Ayrshire Growth Deal (AGD), the specific developments to be delivered under the AGD are dealt with in site allocations CN-A1, KK-A1, KK-A2 and RU-A1 . Policy SS9 is therefore non-specific and simply states that East Ayrshire Council will support such development.	Screened out
SS10: Community Wealth Building	This policy supports the use and adaptation of existing buildings and vacant sites within settlement boundaries, which have been acquired by the community or a community organisation for community use.	Screened out

Policy reference	Test of likely significant effects	HRA screening outcome
SS11: Skills and employment	This policy does not specify locations for major development but states a requirement for developers to submit a skills and employment plan and demonstrate benefits to the local economy.	Screened out
PROP2: Park and Ride at Fenwick West	This policy is a statement of intent to explore the feasibility of developing a park and ride facility, including cycle parking, at West Fenwick, for the purposes of enabling an alternative to car travel between East Ayrshire and Glasgow.	Screened out
PROP3: Park and ride at Glasgow Road, KK	This policy is a statement of intent to explore the feasibility of developing a park and ride facility, including cycle parking, at Glasgow Road, Kilmarnock, for the purposes of enabling an alternative to car travel between East Ayrshire and Glasgow.	Screened out
PROP4: Improvements to Bellfield Interchange and Kirklandside/Kaimshill	This policy is a statement of intent to work with Transport Scotland to ensure that the necessary improvements are made to the Bellfield Interchange to guarantee that road users, pedestrians and cyclists can use the road and active travel network more safely and efficiently.	Screened out
PROP5: Our energy masterplan	This policy is a statement of intent to develop a regional Ayrshire Energy Masterplan which will aim to increase the already substantial contribution to renewable energy supplies.	Screened out
PROP6: Our Local Heat & Energy Efficiency Strategy	This policy is linked to PROP5 and describes a commitment to developing an East Ayrshire-wide Local Heat & Energy Efficiency Strategy aimed at reducing carbon emissions.	Screened out
SS12: Making space in settlements for green energy	This policy describes the Council's support for proposals for renewable energy or renewable heat developments on underutilised land within settlements.	Screened out
SS13: Strategic Woodland Creation	The area identified for woodland creation lies between Cumnock and New Cumnock, stretching south of Dalleagles. It is outside of the boundary of any European site.	Screened out
DES1: Development Design	This is a general criteria-based policy setting out various requirements for development proposals. Several of the requirements are intended to protect the environment, and, overall, the policy is intended to ensure development is sustainable.	Screened out
LPP1: Preparation of Local Place Plans	This is a general policy which does not promote or support any specific development. It sets out that certain criteria will be applied to Local Place Plans and any associated development.	Screened out
LPP2: Development within a Local Place Plan Area	This is a general policy that neither provides any specific site locations nor will in itself lead directly to development. It safeguards against development which conflicts with the Local Place Plan.	Screened out
OS1: Green and Blue Infrastructure	This is a general criteria-based policy setting out various requirements for development proposals. Several of the requirements are intended to protect the environment, and overall the policy is intended to ensure development is sustainable.	Screened out
OS2: Safeguarded Open Space	This is a safeguarding policy designed to prevent development from causing loss of greenspace. It is environmentally positive and does not support or promote any specific development.	Screened out
PLAY1: Play Provision	This is a general policy which does not promote or support any specific development but describes how opportunities for recreational space should be provided in major residential and smaller developments. The policy also supports the use of vacant/ derelict/ unused/underused land in order to improve green infrastructure.	Screened out
PROP7: Play Sufficiency Assessment	This is a statement of intent to undertake a Play Sufficiency Assessment in the lifetime of LDP2 which will inform the evidence base for LDP3.	Screened out
PLAY2: Loss of Play Equipment and Outdoor Sports Facilities	This is a general criteria-based policy setting out the conditions under which the Council would allow the loss of play equipment and outdoor sports facilities.	Screened out
HE1: Listed Buildings	This is a safeguarding policy aimed at protecting listed buildings. It sets out criteria which must be met before such buildings can be demolished. It does not support or promote any specific development.	Screened out

Policy reference	Test of likely significant effects	HRA screening outcome
HE2: Conservation Areas	This is a criteria-based policy which aims to protect conservation areas. It does not support or promote any specific development.	Screened out
HE3: Scheduled Monuments, Historic Battlefields and other Archaeological and Historic Environment Assets	This is a safeguarding policy which aims to protect heritage features. It does not support or promote any specific development.	Screened out
HE4: Gardens and Designed Landscapes	This is a safeguarding policy which aims to protect gardens and design landscapes. It sets out criteria which development must meet if it could affect any garden or designed landscape.	Screened out
HE5: Enabling Development	This is a criteria-based policy which sets out the requirements which must be met by development in relation to listed buildings and/or other heritage assets in order for proposals to be supported by East Ayrshire Council.	Screened out
NE1: Protecting and Enhancing Landscape and Features	This is a criteria-based policy which generally aims to protect the environment. It does not support or promote any specific development.	Screened out
NE2: Development Impacts on Areas of Wild Land	This is a safeguarding policy which aims to protect areas of wild land. It restricts development which could impact on wild land.	Screened out
NE3: Local Landscape Area	This is a criteria-based policy which generally aims to protect the environment. It does not support or promote any specific development.	Screened out
NE4: Nature Crisis	This is a policy to facilitate biodiversity enhancement, nature recovery and nature restoration across East Ayrshire. It is a safeguarding policy aimed at increasing biodiversity and links to policies DES1, OS1 and NE5.	Screened out
NE5: Protection of Areas of Nature Conservation Interest	This is a safeguarding policy which aims to protect the environment, including specifically European sites. It prevents development which could adversely affect a European site.	Screened out
NE6: Vulnerable, Threatened and Protected Species	This is a safeguarding policy which aims to protect the environment, and specifically biodiversity. It is environmentally positive.	Screened out
NE7: Geodiversity and Geological Interest	This is a criteria-based policy which aims to protect geodiversity. It does not support or promote any specific development.	Screened out
NE8: Trees, Woodland, Forestry and Hedgerows	This is a safeguarding policy which aims to protect trees, woodland and hedgerows. It sets requirements which must be met by development if proposals could affect such features. It does not support or promote any specific development.	Screened out
NE9: Woodland Creation	This policy supports national objectives to increase planting in order to reach annual woodland creation targets and contribute to meeting climate change targets. Proposals for woodland and forestry creation must adhere to objectives and principles set out in various plans and strategies which include the protection of designated sites and their interest features.	Screened out
NE10: Protection of Prime-Quality Agricultural Land	This is a safeguarding policy which aims to protect prime quality agricultural land. It sets criteria which must be met by development which could impact on such land.	Screened out
NE11: Soils	This is a safeguarding policy which aims to protect peat and carbon-rich soils. It sets criteria which must be me by development which could impact on peat or other carbon-rich soil.	Screened out
NE12: Water, Air, Light and Noise Pollution	This is a general criteria-based policy setting out various requirements for development proposals. Several of the requirements are intended to protect the environment, and overall the policy is intended to ensure development is sustainable.	Screened out
NE13: Contaminated Land	This is a criteria-based policy which sets out requirement for development which could impact contaminated land. It does not support or promote any specific development.	Screened out
RES1: New Housing Development	This is a development management policy to ensure that new residential developments are built on land specifically allocated for housebuilding.	Screened out
RES2: Affordable Housing	This policy does not support or promote any specific development but requires that housing developments include affordable homes.	Screened out

Policy reference	Test of likely significant effects	HRA screening outcome
RES3: Residential Amenity	This is a criteria-based policy which sets requirements for housing development. It seeks to safeguard existing resources, including amenity space.	Screened out
RES4: Compact Growth	This is a statement of intent to make optimal use of available land and enable local living.	Screened out
RES5: Conversions to Residential Use	This policy supports development, but it has no spatial definition.	Screened out
RES6: Gypsy/ Traveller and Travelling Show-people Sites	This is a criteria-based policy which sets requirements for development. It does not support or promote any specific development.	Screened out
RES7: Non-Permanent Dwellings	This is a criteria-based policy which sets requirements for development. It does not support or promote any specific development.	Screened out
RH1: Housing in the Rural Protection Area	This is a criteria-based policy which sets requirements for development. It does not support or promote any specific development.	Screened out
RH2: Housing in the Rural Diversification Area	This is a criteria-based policy which sets requirements for development. It does not support or promote any specific development.	Screened out
RH3: Rural Housing Clusters	This is a criteria-based policy which sets requirements for development. It does not support or promote any specific development.	Screened out
RH4: Housing for Agricultural Workers and Other Rural Enterprises	This is a criteria-based policy which sets requirements for development. It does not support or promote any specific development.	Screened out
RH5: Rural Housing Development	This is a safeguarding policy which limits development in the countryside under specified circumstances. It does not support or promote specific development.	Screened out
TC1: Supporting Development in Centres	This is a criteria-based policy which sets requirements for development. It does not support or promote any specific development.	Screened out
TC2: Town Centre First Assessment	This is a criteria-based policy which sets requirements for development. It does not support or promote any specific development.	Screened out
TC3: Small Scale Retail Development in out-of-centre Locations	This is a criteria-based policy which sets requirements for development. It does not support or promote any specific development.	Screened out
TC4: Town Centre Living	This policy aims to encourage town centre living by supporting the conversion to residential use of upper floor and ground floor units in certain areas.	Screened out
TC5: Residential Amenity in Town Centres	This is a development management policy to ensure that residential amenity areas are provided in town centre developments.	Screened out
IND1: Business and Industrial Development	This is a development management policy to ensure that certain industrial developments are directed to those sites safeguarded for Business and Industrial use.	Screened out
IND2: Business and Industrial Development in Rural Areas	This is a criteria-based policy which sets requirements for development.	Screened out
IND3: Alternative Use of Business and Industrial Land or Premises	This policy supports industrial development subject to certain criteria. However, it has no spatial definition and applies to development anywhere outside of safeguarded sites referred to in policy IND1.	Screened out
IND4: Working from Home	This is a criteria-based policy. It relates to operating a business from a residential location. Any development brought forward under this policy is very unlikely to result in significant effects on a European site.	Screened out
TOUR1: Tourism Development	This policy supports tourism development within East Ayrshire provided it can be demonstrated that there would be no effect on the integrity of European sites.	Screened out
TOUR2: Tourism Accommodation	This policy promotes the development of new tourism accommodation within settlement boundaries. Outside of settlement	Screened out

Policy reference	Test of likely significant effects	HRA screening outcome
	boundaries, tourism accommodation development would only be supported where it complies with other policies of LDP2, including TOUR1 (above) which requires that such development has no adverse effect on the integrity of any European site.	
TOUR3: Rural Sporting, Leisure and Recreational Activities	This is a criteria-based policy which requires that development demonstrates that there will be no adverse effects on landscape and natural heritage features (which would include European sites).	Screened out
TOUR4: The Dark Sky Park	This is a safeguarding policy which aims to prevent artificial light pollution of the Galloway Forest Dark Sky Park. It is generally environmentally positive.	Screened out
TOUR5: Loss of Tourist Facilities	This is a development management policy. Development proposals that involve the change of use of a tourism-related facility will only be supported if it can be demonstrated that the existing use is no longer viable and that there is no requirement for alternative tourist facilities in the area.	Screened out
TOUR6: Loudoun Castle Estate Garden and Designed Landscape	This policy supports the development of Loudoun Castle Estate for tourism and recreational purposes. The increase in visitor numbers to this single tourism development is very unlikely to be sufficient to result in adverse disturbance / recreational pressure effects on any European site. Development is likely to be such that visitors are encouraged to stay within the Estate. Policy TOUR1 would also apply, which requires that any tourism-related development must not adversely affect any European site.	Screened out
INF1: Infrastructure First	This is a criteria-based policy which sets requirements for development.	Screened out
INF2: Installation of Fibre Broadband for New Developments	This is a criteria-based policy which requires communications infrastructure to be provided with new development. The policy does not support or promote any specific development.	Screened out
INF3: Installation of Digital Communications Infrastructure	This is a general criteria-based policy setting out various requirements for development proposals. Several of the requirements are intended to protect the environment, and overall the policy is intended to ensure development is sustainable.	Screened out
INF4: Developer Contributions	This is a development management policy relating to the funding and delivery of infrastructure. It is a positive policy as it provides for phasing of development in line with the delivery of appropriate infrastructure. There are no impact pathways present.	Screened out
T1: Transport Requirements in New Development	This is a criteria-based policy setting requirements on transport-related developments. It does not support or promote any specific development.	Screened out
T2: Transportation of Freight	This is an environmentally positive policy which seeks to encourage the use of rail for freight transportation. It is, however, general in nature, and does not promote any specific change.	Screened out
T3: Development and Protection of Core Paths and Other Routes	Policy states that the development of new routes for core paths, other paths which form part of the strategic path network, local footpaths, bridle paths or cycle paths should demonstrate that they will not have an adverse effect on the integrity of a European site.	Screened out
T4: Charging Infrastructure for Electric Vehicles	Policy states that all new developments will be required to provide EV charging infrastructure, where they meet specified thresholds.	Screened out
RE1: Renewable Energy	This policy generally supports renewable energy development but has no spatial definition.	Screened out
Schedule 1: Renewable Energy Assessment Criteria	The Schedule lists the criteria in terms of the impacts of the development itself and the cumulative impacts arising when the development is considered alongside other schemes.	Screened out
RE2: Heating and Cooling	This policy supports renewable or low carbon heat generation developments. However, it has no spatial definition.	Screened out
RE3: Low and Zero Carbon Buildings	This is a criteria-based policy setting out requirements for new development. It is generally environmentally positive and seeks to encourage the adoption of low carbon technologies.	Screened out
MIN1: Sterilisation of Workable Minerals Resources	This is a safeguarding policy which seeks to protect commercial mineral resources. It does not support or promote any specific development.	Screened out

Policy reference	Test of likely significant effects	HRA screening outcome
MIN2: Extraction of Minerals	This is a criteria-based policy setting out various requirements for development proposals. Several of the requirements are intended to protect the environment.	Screened out
MIN3: Minerals Restoration and Placemaking	This is a safeguarding policy which is designed to protect the environment from mineral extraction developments. It does not support or promote any specific development.	Screened out
MIN4: Protecting Communities	This is a safeguarding policy which aims to protect local communities from mineral extraction developments. It does not support or promote any specific development.	Screened out
MIN5: Protecting Residential Amenity	This is a safeguarding policy which aims to protect local communities from mineral extraction developments. It does not support or promote any specific development.	Screened out
MIN6: Duration of Extraction Period	This is a criteria-based policy which sets out requirements which must be met for East Ayrshire Council to support applications to extend time limit on mineral extractions developments.	Screened out
MIN7: Borrow Pits	This is a criteria-based policy which sets requirements which must be met before proposals for borrow pits will be supported. It includes several requirements designed to protect the environment.	Screened out
MIN8: Reworking of Waste Spoil Tips	Although this policy supports development of a specific type, it has no spatial definition.	Screened out
MIN9: Extraction of Secondary Aggregates	Although this policy supports development of a specific type, it has no spatial definition.	Screened out
WM1 Waste Management in New Development	This policy is designed to protect the environment by minimising waste generated through new development. It does not support or promote any specific development.	Screened out
WM2: Development & the Circular Economy	This policy supports developments that apply circular economy principles and aim to reduce, reuse or recycle waste in line with the waste hierarchy.	Screened out
WM3: Waste Management Facilities	This is a criteria-based policy which sets requirements which must be met before East Ayrshire Council will support proposals for new or extended waste management facilities.	Screened out
WM4: Recovery and Disposal of Waste	This is a criteria-based policy. Although it states that East Ayrshire Council will support developments associated with waste recovery / disposal, it contains no spatial definition.	Screened out
FIN1: Financial Guarantees	This policy does not support or promote any development and is designed to safeguard the environment by ensuring that funds are in place for decommissioning and/or restoration.	Screened out
CR1: Flood Risk Management	This is a criteria-based policy which aims to ensure development is appropriate with regards to flood risk. It also seeks to safeguard flood plains and other flood storage areas. It does not support or promote any specific development.	Screened out
CR2: Emissions	This is a development management policy aimed at managing those developments that have the potential to emit significant levels of pollution. The policy will ensure such developments are in the public interest and take steps to minimise the level of emissions.	Screened out
CR3: Carbon Sequestration	This is a criteria-based policy setting out various requirements for development proposals. Several of the requirements are intended to protect the environment.	Screened out

Site allocation screening

4.3 The locations of the LDP2 site allocations are illustrated on **Figure 2, Appendix A.**

4.4 When screening for water quality impacts on European sites, the only relevant watercourses are the River Nith and its tributaries, which are connected downstream to the Solway Firth SAC. Allocated sites within East Ayrshire are all downstream of any other European site (and pollution could not travel upstream to these sites) or they are situated in other river catchments which do not connect to any European site scoped in to this HRA.

4.5 A maximum distance of 5 km between the European sites scoped into this HRA and site allocations was used when assessing the potential for disturbance / recreational pressure impacts. Based on evidence presented in Weitowitz *et al* (2019), due to the habitats present (which are predominantly bog or other moorland, or inaccessible riparian woodland), it is very unlikely that there would be substantial numbers of visitors travelling more than this distance from allocated sites to any European site scoped in to this HRA. Moreover, the impact of disturbance / recreational pressure was only considered to be relevant to sites allocated for residential development, which could increase the local population and thus visitor numbers.

4.6 Changes in air quality as a result of development at the sites allocated in LDP2 are not, at this stage in the planning system, expected to give rise to significant effects on European sites, for the following reasons:

- the only main road in East Ayrshire which is within the distance at which air quality impacts from traffic are generally expected (200 m, see Holman *et al* (2019)) is the A70. The only European sites within this distance of the A70 are the Muirkirk and North Lowther Uplands SPA and Airds Moss SAC. The A70 is not a major road such as a motorway and connects a series of relatively small settlements between Cumnock and the A76, and the eastern boundary of the Council area;
- development of sites allocated under LDP2 is very unlikely to significantly increase traffic along the A70 or other minor roads in proximity to the Muirkirk and North Lowther Uplands SPA and Airds Moss SAC;
- only very small sections of both lie within 200 m of the A70 – approximately 500 m adjacent to the SPA and approximately 1.2 km adjacent to the SAC. As such, any traffic-related air quality impacts could only occur in a small proportion of these very large European sites; and,
- only one allocated site lies within 200 m of any European site. The site, referred to as MK-B1 is located in Muirkirk, within 200 m of the Muirkirk and North Lowther Uplands SPA, and is allocated for business or industrial use. Any increase in traffic to this location is likely to be negligible and very unlikely to significantly affect the SPA. In the absence of more information on what actual development may occur at this site, it is not possible to further assess what air quality impacts may arise.

4.7 Therefore, air quality impacts were screened out as an impact pathway for significant effects on European sites in this HRA. However, projects proposed and submitted for planning permission under LDP2 must assess the impacts on air quality that they may have and the potential for effects to arise on European sites.

4.8 There are no other impacts which can readily be assessed at this stage in the planning system which could arise from the land uses identified for the site allocations in LDP2.

4.9 The results of the test of likely significant effects arising from the site allocations of LDP2 are presented in **Table 7**. The impact pathway buffers identified in **Table 4** have been considered throughout this screening exercise.

4.10 There are no site allocations within LDP2 for which likely significant effects were identified when considering them in isolation. However, the potential for disturbance / recreational pressure impacts to give rise to likely significant effects could not be excluded for any residential development within 5 km of a European site (the only European sites within this distance of allocated sites were the Muirkirk and North Lowther Uplands SPA and Airds Moss SAC). On this basis, a total of 30 sites were screened into appropriate assessment.

Table 7. HRA screening of LDP2 site allocations

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
Residential					
AL-H1	Coal Road, Auchinleck	56	2.9 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However, due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	Screened in
AL-H2	Dalsalloch Wood, Auchinleck	106	3.7 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However, due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	Screened in
AL-H3	School Road, Auchinleck	10	3.4 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However, due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	Screened in
BS-H1	Burnside (E), Burnside	6	7.1 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
BS-H2	Burnside (W), Burnside	7	7.1 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	
CA-H1	John Street (E), Catrine	9	4.2 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However, due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	Screened in
CA-H2	John Street (W), Catrine	14	4.3 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However, due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	Screened in
CA-H3	Mill Street, Catrine	5	4.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of the designation.	Screened in
CA-H4	Shawwood Farm, Catrine	80	3.7 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However, due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	Screened in
CH-H1	Gatehead Road, Crosshouse	138	9.6 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	
CH-H2	Holm Farm, Irvine Road, Crosshouse	20	9.1 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
CH-H3	Irvine Road, Crosshouse	39	16.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
CN-H1	Auchinleck Road, Cumnock	40	3.3 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However, due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	Screened in
CN-H2	Barrhill Road, Cumnock	27	3.4 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However, due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	Screened in
CN-H3	Dalgleish Avenue, Cumnock	55	2.8 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However,	Screened in

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	
CN-H4	Ryderston Drive, Cumnock	9	4.2 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC. However, due to the proximity of the allocated site to these European sites, there is the potential for in-combination effects arising from other residential development within 5 km of these designations.	Screened in
CR-H1	Grougar Road (E), Crookedholm	60	10.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
DA-H1	Ayr Road, Dalmellington	24	13.9 km Merrick Kells SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
DA-H2	Gateside Road, Dalmellington	36	14.4 km Merrick Kells SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
DA-H3	High Street, Dalmellington	4	13.9 km Merrick Kells SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
DG-H1	Martnaham Way, Drongan	88	14.0 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
DG-H2	Mill O'Shield Road, Drongan	60	14.9 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
DL-H1	Burn Road, Darvel and Priestland	15	2.9 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
DL-H2	Crofthead, Darvel & Priestland	27	1.6 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
DL-H3	Jamieson Road, Darvel and Priestland	40	2.6 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
DL-H4	West Donnington Street, Darvel and Priestland	21	2.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
DR-H1	Burnton Road, Dalrymple	55	22.9 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
DU-H1	West View Terrace, Dunlop	6	13.4 km Renfrewshire Heights SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
FW-H1	Bowling Green Road, Fenwick and Laigh Fenwick	20	11.6 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Air quality: given the small number of units proposed, it is highly unlikely that housing development at this location will have any significant effect on the integrity of Cockinhead Moss SAC alone or in-combination as there are no main roads within 200 m of the SAC.	Screened out
FW-H2	Main Road, Fenwick and Laigh Fenwick	29	11.6 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
FW-H3	Stewarton Road North, Fenwick and Laigh Fenwick	10	11.4 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	
GA-H1	Belvedere View, Galston	144	4.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
GA-H2	Brewland Street, Galston	17	5.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
GH-H1	Main Road, Gatehead	7	4.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
HU-H1	Galston Road, Hurlford	100	9.2 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H1	Altonhill, Kilmarnock	800	9.4 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
KK-H2	Bridgehousehill Kilmarnock	200	11.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H3	Fardalehill (E), Kilmarnock	249	9.9 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H4	Fardalehill (W) , Kilmarnock	800	9.4 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H5	Glasgow Road (E), Kilmarnock	79	11.1 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H6	Glasgow Road (W), Kilmarnock	45	13.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H7	Irvine Road, Kilmarnock	133	11.1 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	
KK-H8	Kennedy Drive, Kilmarnock	48	11.8 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H9	Maxholm, Kilmarnock	300	10.3 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H10	Moorfield, Kilmarnock	58	12.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H11	Mount Pleasant Way/Hill Street, Kilmarnock	30	15.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H12	Northcraigs, Kilmarnock	485	13.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
KK-H13	Sutherland Drive, Kilmarnock	10	13.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H14	Treesbank, Kilmarnock	269	13.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H15	Western Road (S), Kilmarnock	47	11.2 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-H16	Western Road (N), Kilmarnock	10	14.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KM-H1	Crosshouse Road, Kilmaurs	128	16.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KM-H2	Habbieauld Road, Kilmaurs	29	8.0 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	
KM-H3	Irvine Road, Kilmaurs	65	7.5 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KM-H4	Standalane, Kilmaurs	44	8.0 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KT-H1	Southhook Road, Knockentiber	86	9.0 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
MA-H1	Sorn Road, Mauchline	92	5.8 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
MA-H2	Station Road (N), Mauchline	95	6.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
MA-H3	Station Road (S), Mauchline	105	6.2 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
MK-H1	Smallburn Road, Muirkirk	8	0.7 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
MK-H2	Wellwood Street, Muirkirk	26	0.9 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
NC-H1	Castle, New Cumnock	5	3.3 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
NC-H2	Crown Hotel, New Cumnock	14	4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
NC-H3	Dalhanna Drive, New Cumnock	14	3.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: it is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
PA-H1	Ayr Road, Patna	17	21 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
PA-H2	Carskeoch Caravan Site, Patna	40	21.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
PA-H3	Cemetery Road, Patna	6	21.3 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
PA-H4	Main Street, Patna	5	21.2 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
ST-H1	Draffen East, Stewarton	70	16.3 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	
ST-H2	Kilwinning Road, Stewarton	350	5.2 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
Business and Industry (S = secured; O = opportunity)					
AL-B1(O)	High House Industrial Estate, Auchinleck	-	4 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
AL-B1(S)	High House Industrial Estate, Auchinleck	-	4 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CA-B1(S)	Glen Catrine Bonded Warehouse, Catrine	-	4 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CA-B2(S)	Newton Street, Catrine	-	4.3 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CH-B1(S)	Laigh Milton Road, Crosshouse	-	9.4 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	
CN-B1(S)	Ayr Road (N), Cumnock	-	3.9 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CN-B2(S)	Ayr Road (S), Cumnock	-	3.9 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CN-B3(S)	Cumnock Business Park, Cumnock	-	4.4 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
DG-B1(S)	Drongan Industrial Estate, Drongan	-	14.1 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
DG-B2(S)	Littlemill Road, Drongan	-	14.1 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
DL-B1(S)	Campbell Street, Darvel and Priestland	-	2.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
DL-B2(O)	Jamieson Road (2017 Plan site 285B re-allocated as miscellaneous), Darvel and Priestland	-	2.2 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. In the absence of identified land use it is not possible to identify possible impacts which could occur from development of this site. On that basis, it screens out of further assessment. Any project(s) brought forward at this location would need to consider the potential for adverse effects on any European site.	Screened out
GA-B1(S)	Barmill Road, Galston	-	5.3 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
HU-B1(O)	Mauchline Road, Hurlford	-	9.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
HU-B1(S)	Mauchline Road, Hurlford	-	9.2 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-B1(S)	Bonnyton Industrial Estate, Kilmarnock	-	11.0 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-B2(S)	MAHLE, Kilmarnock	-	12.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
KK-B3(S)	Glenfield Industrial Estate, Kilmarnock	-	12.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-B4(S)	Moorfield North, Kilmarnock	-	10.1 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-B5(S)	Moorfield South, Kilmarnock	-	10.0 km Dyeneuk Moss	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-B6(O)	Northcraig/ Rowallan, Kilmarnock	-	10.4 km Dyeneuk Moss	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-B6(S)	Rowallan Business Park, Kilmarnock	-	10.4 km Dyeneuk Moss	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
MA-B1(S)	Station Road Industrial Estate, Mauchline	-	6.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
MK-B1(O)	Furnace Road Industrial Site, Muirkirk	-	0.2 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	
NC-B1(S)	Waterside Industrial Estate, New Cumnock	-	3.1 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
NM-B1(O)	Brown Street, Newmilns	-	3.3 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
PA-B1(O)	Ayr Road Industrial Site, Patna	-	17.0 km Merrick Kells SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
PA-B1(S)	Ayr Road Industrial Site, Patna	-	17.0 km Merrick Kells SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
RU-B1(S)	Egger, Barony Road, near Auchinleck, Rural	-	0.5 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
RU-B2(O1)	Kirklandside & Kaimshill (N), Rural	-	9.7 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
RU-B2(O2)	Kirklandside & Kaimshill (N), Rural	-	9.7 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
RU-B3(O)	Crowbandgate, New Cumnock	-	3.3 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
ST-B1(O)	Magbiehill, Stewarton	-	5.5 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
ST-B2(S)	Bridgend, Stewarton	-	7.0 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
ST-B3(S)	Rigg Street, Stewarton	-	6.3 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
Waste					
CN-W1	Caponacre HWRC and bulking facility, Cumnock	-	4.5 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
KK-W1	Western Road Household Waste Recycling Centre and Material Recycling Facility, Kilmarnock	-	10.4 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-W2	Southhook Road, Waste Transfer Station, Kilmarnock	-	10.3 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-W3	Moorfield Industrial Estate, Billy Bowie – In vessel Composting Facility, Kilmarnock	-	11.0 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-W4	Burnside Street, McGinns Metals EMR, Kilmarnock	-	12.5 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
RU-W1	Dunniflats, Rural	-	7.0 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
RU-W2	Garlaff, Rural	-	7.1 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	
RU-W3	Gauchalland Depot Waste Facility, Rural	-	6.2 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
RU-W4	Killoch Energy recovery Facility nr. Ochiltree, Rural	-	10 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
RU-W5	Milton Landfill (restored), Rural	-	7.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for waste management. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
Ayrshire Growth Deal					
CN-A1	CoRE, Cumnock	-	3.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. In the absence of identified land use it is not possible to identify possible impacts which could occur from development of this site. On that basis, it screens out of further assessment. Any project(s) brought forward at this location would need to consider the potential for adverse effects on any European site.	Screened out
KK-A1	Ayrshire Engineering Park, Kilmarnock	-	10.0 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-A2	Balmoral Road/Hill Street Kilmarnock	-	11.0 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	
RU-A1	Advanced Manufacturing Investment Corridor, Rural	-	10.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
Miscellaneous					
AL-M1	Former Auchinleck Academy, Auchinleck	-	3.0 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry, and community uses. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
AL-M2	Templeton Roundabout, Auchinleck	-	4 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business and industry. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
BG-M1	Bank Glen, Connel Pk. and Leggate	-	5.0 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for housing, community, tourism and business / industry. It is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
CA-M1	Bridge Street, Catrine	-	4.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for housing, tourism and footfall-generating uses. It is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site,	Screened in

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	
CN-M1	Caponacre, Cumnock	-	4.0 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for business / industry, garden centre, car showroom, tourism and leisure. Increases in disturbance / recreational pressure are generally associated with housing developments and the implementation of TOUR 1 requires that such development for tourism has no adverse effect on the integrity of any European site therefore this pathway can be screened out.	Screened out
CN-M2	Glaisnock Glen, Cumnock	-	4.3 km Muirkirk and North Lowther Uplands SPA and Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for housing and business/industry. It is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
DA-M1	Croft Street, Dalmellington	-	14 km Merrick Kells SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for housing and footfall-generating uses. Given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
DA-M2	Doon Academy, Dalmellington	-	14 km Merrick Kells SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for or educational use and associated community and recreational facilities. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
GA-M1	Bridge Street, Galston	-	5.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for housing, business (Class 4) and footfall-generating uses. Given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
GA-M2	Corner of Cross St, Galston	-	5.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for housing, business (Class 4), civic space and footfall-generating uses. Given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
GA-M3	Garden Street, Galston	-	5.1 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for housing, community and recreational uses. Given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-M1	Former ABC Cinema, Titchfield Street, Kilmarnock	-	12.1 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for footfall-generating, residential and community uses. Given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
KK-M2	Former Burlington Berties, Kilmarnock	-	12 km Muirkirk and North Lowther Uplands SPA and Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for community/educational uses and green infrastructure/ civic space. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-M3	Wellington Street, Kilmarnock	-	12.0 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for residential and community use. Given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
KK-M4	West Shaw Street, Kilmarnock	-	12.4 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for footfall generating uses. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-M5	Western Road (area centre), Kilmarnock	-	11.0 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated for a neighbourhood centre comprising of footfall generating uses. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
KK-M6	Northcraigs, Kilmarnock	-	10.7 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance: this site has been allocated for a neighbourhood centre comprising of footfall generating uses. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	
MK-M1	Former Nursery School, Main Street, Muirkirk	-	0.7 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for housing, community and tourism. It is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
MK-M2	Carruthers Park, Muirkirk	-	0.8 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for business / industrial uses, community and housing. It is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
NC-M1	Castle, New Cumnock	-	3.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for housing, community, business / industry and footfall-generating uses. It is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
NM-M1	High Street, Newmilns	-	3.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for community, tourism and leisure / recreation. It is highly unlikely that development for leisure / recreation at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
NM-M2	Loudoun Road, Newmilns	-	3.5 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for business / industry and housing. It is highly unlikely that housing development at this location alone would have any significant effect on the integrity of the Muirkirk and North Lowther Uplands SPA. However, due to the proximity of the allocated site to this European site, there is the potential for in-combination effects arising from other residential development within 5 km of this designation.	Screened in
RU-M1	Barony Colliery, Rural	-	5.2 km Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for tourism, leisure and recreation. Given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
RU-M2	Loudoun Castle, Rural	-	4.4 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated to support the development of the site for tourism, leisure and tourist accommodation purposes, as a means of safeguarding the future of the Estate. Implementation of Policies TOUR1 and TOUR6 would ensure that any tourism-related development will not adversely affect any European site.	Screened out
ST-M1	Bridgend, Stewarton	-	7.0 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
				Disturbance / recreational pressure: this site has been allocated for housing, community and business / industry uses. Given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	
ST-M2	Kilwinning Road, Stewarton	-	6.2 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance / recreational pressure: this site has been allocated for affordable / assisted living housing, community and healthcare. Given the distance to the nearest European site, it is considered very unlikely that development at this location would result in a significant increase in visitor numbers. It is therefore very unlikely that there would be any significant effect from disturbance / recreational pressure.	Screened out
Cemetery sites					
CEM1	South west of existing cemetery, off B7083, Auchinleck	-	12 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CEM2	Outwith settlement boundary, off Newton Street, south west of existing cemetery, Catrine	-	11 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CEM3	North east of existing cemetery at edge of settlement, north of Church Hill,	-	11 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
	Dalmellington				
CEM4	North of Church Street and of existing cemetery, Dalrymple	-	23.7 km Merrick Kells SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CEM5	North of existing cemetery and of Margaret Drain Crescent, Drongan.	-	14.2 km Muirkirk and North Lowther Uplands SPA and Airds Moss sac	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CEM6	South east of existing cemetery near Skernieland, Fenwick	-	11.7 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CEM7	West of existing cemetery off Cemetery Road, Galston	-	5.1 km Muirkirk and North Lowther Uplands SPA	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CEM8	North of existing cemetery off Grassyards Road, Kilmarnock	-	10.1 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CEM9	North-west of existing cemetery off Kilmarnock Road, Kilmaurs	-	9.4 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out

Site reference	Site address	Anticipated number of units after adoption of LDP2	Approximate distance to closest European site	Test of likely significant effects	HRA screening outcome
CEM10	South of settlement boundary and south of existing cemetery, Mauchline	-	5.1 km Cockinhead Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CEM11	North of existing cemetery off Glasgow Road, Muirkirk	-	4.8 km Airds Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out
CEM12	East of Bellfield, North and west of existing cemetery, Rural	-	10.4 km Dykeneuk Moss SAC	Water quality: there is no obvious hydrological connection between this site and the River Nith. Changes in water quality can therefore be screened out as a pathway. Disturbance: this site has been allocated as a cemetery site. Increases in disturbance / recreational pressure are generally associated with housing developments therefore this pathway can be screened out.	Screened out

5. Appropriate assessment

Elements of LDP2 screened into appropriate assessment

5.1 During the HRA screening stage, it was possible to exclude likely significant effects on any European site from the policies contained within LDP2. No further assessment of the policies is therefore required and they are not considered further in the appropriate assessment stage described in this section.

5.2 No site allocation is likely to have significant effects on any European site in isolation. However, the possibility of sites allocated for residential development resulting in disturbance / recreational pressure impacts which could act in-combination to cause significant effects could not be excluded. As set out in **Section 2** of this document, the law does not prescribe how an appropriate assessment should be undertaken or presented. This section therefore approaches the assessment by:

- identifying which European sites may be significantly affected by the in-combination effects of development at sites allocated in LDP2;
- identifying which site allocations have been screened in as having the potential to act in-combination to result in significant effects on these European sites;
- setting out which impacts could arise from the development of these allocated sites and reviewing published research into the potential ecological effects of these impacts; and,
- assessing, on the basis of the information obtained in the previous steps and throughout this HRA, and in view of their conservation objectives, the potential for there to be adverse effects on the integrity of the relevant European sites.

5.3 In relation to the first point in the list above, only two European sites have the potential to be significantly affected by development of allocated sites within LDP2: Muirkirk and North Lowther Uplands SPA and Airds Moss SAC. Details of each site, including their qualifying features, latest assessed conditions (where available), identified threats and pressures, and conservation objectives, are provided in **Table 5** and **Appendix B**. Airds Moss SAC shares some of its boundary with Muirkirk and North Lowther Uplands SPA and is otherwise entirely encompassed by the latter site (see **Figure 1**).

5.4 The only impact which could give rise to significant effects on these European sites, when multiple developments result in these impacts occurring, is disturbance / recreational pressure.

5.5 A review of published research into the possible ecological effects of these impacts is provided below.

Literature review

5.6 There is concern over the cumulative impacts of recreation on key nature conservation sites in the UK, as many sites must fulfill conservation objectives while also providing recreational opportunity. Various research reports have provided compelling links between changes in housing and access levels and impacts on European sites (Liley *et al*, 2006a; Liley *et al*, 2006b). While many European sites are vulnerable to recreation, housing growth has particularly strong impacts in sites designated for their bird interest (i.e. SPAs).

5.7 Data from Natural England's Monitor of Engagement with the Natural Environment (MENE) study (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/828552/Monitor_Engagement_Natural_Environment_2018_2019_v2.pdf) has been used to determine how far people travel to visit the countryside. The data show that during 2018/19, most visits to nature were taken on foot and, over time, visits close to home have increased the most. 44% of visits being taken were within 1 mile (1.6 km) of respondent's homes, 24% were within 1 to 2 miles (1.6 – 3.2 km), and 17% were within 3 to 5 miles (4.8 – 8.0 km). The data also showed that the majority of visits to the natural environment taken in 2018/19 involved walking, with similar proportions walking with or without a dog.

5.8 Weitowitz *et al* (2019) demonstrated that *"more housing consistently means more visitors to protected sites, across most habitats. This is particularly the case for on-foot visitors that originate from housing within 1.5*

km, highlighting that additional housing development in proximity to protected sites is likely to significantly increase recreation pressure. For visitor numbers at parking locations, levels of housing within 15 km of protected sites were also a significant predictor but depended on habitat type". The study found that people on foot tend to stay within 1.5 km of their homes, which is consistent with the MENE survey mentioned above, and that those who travelled favoured sites with water features (i.e., coastal sites, estuaries, and other waterbodies).

5.9 Human activity can affect organisms directly (e.g., loss of habitat or by causing species to flee) and indirectly (e.g., by damaging their habitat or reducing their fitness in less obvious ways, such as by causing stress). The most obvious direct effect is the loss of habitat as a result of increased visitors to a site (i.e., trampling). However, human activity can also lead to much subtler behavioural (e.g., alterations in feeding behaviour, avoidance of certain areas and use of sub-optimal areas) and physiological changes to species (e.g., an increase in heart rate). While these are less noticeable, they might result in major population-level changes by altering the balance between immigration / birth and emigration / death (Riley, 2003).

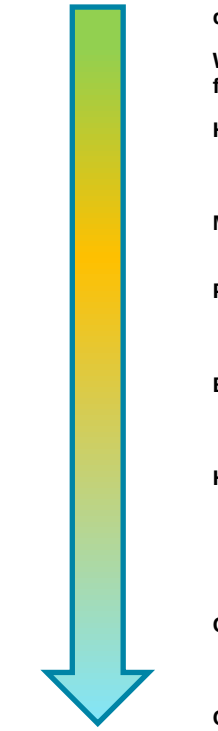
5.10 **Table 8** and **Diagram 3**, which are taken from Anderson (1990), show the degree to which moorland features, including habitat and species for which Muikirk and North Lowther Uplands SPA and Airds Moss SAC are designated, are sensitive to the impacts of recreation. They show that most habitats and bird species suffer a degree of direct negative impact resulting from recreational site users.

Table 8. Relative sensitivity of ecological features of moorlands to the impacts of recreation (adapted from Anderson (1990))

Ecological feature	Direct impacts		Indirect impacts	
	Trampling	Disturbance	Fire	Other management
Dry dwarf-shrub heath	XX	-	XXX	-
Wet dwarf-shrub heath	XXX	-	XX	-
Blanket mire	XXX	-	XXX	-
Mountain	XXX	-	X	-
Acid grassland	XX	-	XX	-
Calcareous grassland	XX	-	-	XX
Flushes/ springs	XXX	-	-	-
Rock ledges	XX	-	-	-
Screes	XX	-	-	-
Breeding birds	-	XXX	XXX	XX
Wintering birds (raptor roosts)	-	X	-	-
Invertebrates	XX	-	XX	X

One X indicates lowest level of sensitivity to impact, three Xs indicates highest level of sensitivity to impact.
A dash (-) indicates that this feature is not sensitive to this type of impact.

Diagram 3. Relative sensitivity or moorland plants (adapted from Anderson (1990))



Species	Notes	SAC/ SPA Presence
Common bent/ crested dog's tail	As in some in-bye land[7]	Not major component of SAC Annex 1 habitats
Wavy hairgrass/ sheep's fescue	On mineral soils	Often minor component of SAC dry heath habitat
Heather	Young	Major component of Annex 1 dry heath and blanket bog habitats
Mat-grass	Usually on drier, thin peats or peaty mineral soils	Often component of heavily grazed dry heath
Purple moor-grass	Usually on wetter flushed peaty soils	Major component of wetter heath and blanket bog habitats
Bracken	Young plants	Can be invasive on drier heath and acid grassland habitats
Heather	Old – old plants are brittle and easily broken	Major component of Annex 1 dry heath and blanket bog habitats. Important for nesting SPA birds
Crowberry / bilberry	On peat	Major component of Annex 1 dry heath and blanket bog habitats
Cotton-grass spp.	Cotton-grass mire on peat	Major component of Annex 1 blanket bog habitats
Sphagna	Flushes, mire on peat	Major component of blanket bogs and transition mire habitats

5.11 Blanket bog is a qualifying feature of Airds Moss SAC, a habitat of high sensitivity according to **Table 8**. **Diagram 3 also** lists cotton-grass *Eriophorum* spp. species and heather *Calluna vulgaris* as 'more sensitive' to trampling, both of which are again found within Airds Moss SAC.

5.12 Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent feeding (Riddington *et al*, 1996). Disturbance therefore risks increasing energetic expenditure of birds while reducing their energetic intake, which can adversely affect the 'condition' and ultimately survival of the birds. Additionally, displacement of birds from one feeding site to others can increase the pressure on the resources available within the remaining sites, which then must sustain a greater number of birds (Gill *et al*, 1998). Moreover, the higher proportion of time a breeding bird spends away from its nest, the more likely it is that eggs will cool and the more vulnerable they, or any nestlings, are to predators. Recreational pressure effects on ground-nesting birds are particularly severe.

5.13 Several factors (e.g., seasonality, type of recreational activity) may have pronounced impacts on the nature of bird disturbance. Disturbance in winter can be more impactful because food shortages make birds more vulnerable at this time of the year. In contrast, there are often fewer recreational users in the winter months and disturbance impacts may be reduced because birds are not breeding. Furthermore, evidence in the literature suggests that the magnitude of disturbance clearly differs between different types of recreational activities. For example, dog walking leads to a significantly higher reduction in bird diversity and abundance compared to hiking (Banks and Bryant, 2007). Scientific evidence also suggests that key disturbance parameters, such as areas of influence and flush distance, are significantly greater for dog walkers than hikers (Miller *et al*, 2001). Furthermore, differences in on-site route lengths and usage patterns likely imply that key spatial and temporal parameters (such as the area of a site potentially impacted and the frequency of disturbance) will also differ between recreational activities.

[7] In-bye land: part of a farm not comprising the hill and rough grazing.

Potential for significant adverse effects on site integrity

5.14 Although disturbance and recreational pressure can clearly have significant adverse effects on European sites, published research suggests that these impacts are greatest on sites with water, especially the coast. The upland habitats within the Muirkirk and North Lowther Uplands SPA and Airds Moss SAC are unlikely to be appealing for recreational purposes to a large number of people. In particular, blanket bog habitat – which is both a qualifying feature of the SAC and which may potentially provide suitable nesting habitat for several qualifying birds of the SPA – would present particularly challenging walking conditions, being heavily vegetated, uneven and almost certainly very wet.

5.15 Moreover, access to these European sites is not easy and would be via a series of tracks, often associated with conifer plantations. Where such tracks exist, visitors are most likely to restrict access to them, rather than walk widely over the upland habitats present.

5.16 Both sites are also very large, with Muirkirk and North Lowther Uplands SPA covering an area of more than 26,500 ha and Airds Moss SAC approximately 1,360 ha. There is therefore highly unlikely to be a concentration of human activity which could focus impacts within a small area.

5.17 Although the qualifying bird species of the SPA are vulnerable to disturbance from human activity, given the points raised in the preceding paragraphs, it is very unlikely that such disturbance would become significant and be of such a level that breeding success would be impaired. Furthermore, all of the qualifying bird species, with the exception of short-eared owl, are in unfavourable condition, and the breeding population of several species, in particular hen harrier, within the SPA is very small.

5.18 Recreational activity is not identified by NatureScot (https://sitelink.nature.scot/home) as an existing negative pressure on any of the qualifying features of the Muirkirk and North Lowther Uplands SPA or Airds Moss SAC.

5.19 Therefore, for the following reasons, and regardless of the level of increase in housing delivered under LDP2, **it is concluded that there will be no adverse effect on the integrity of Muirkirk and North Lowther Uplands SPA, Airds Moss SAC or any other European site:**

- the nature of the European sites means that they are very unlikely to be attractive to a large number of new residents who would seek to visit the remote upland environments which they protect;
- the habitats within the SPA and SAC present challenging conditions for walking, with dense vegetation, rough terrain and being regularly very wet;
- there is no easy access to the European sites, with a limited number of tracks, often associated with conifer plantations. Vehicular access to the sites is therefore impossible across much of their area. Visitors to the sites are likely to walk on tracks only, and are unlikely to walk over other habitats;
- the sites are very large, and visitors are likely to be widely distributed, with no concentration in activity in a particular location;
- disturbance of the qualifying bird species while breeding is unlikely because:
  - they occur at low population densities (in part due to their unfavourable conservation status within the SPA);
  - for the reasons set out above including low visitor numbers, the size of the European site and the likelihood of access being restricted to small number of existing tracks; and
- disturbance / recreational pressure is not identified by NatureScot as a threat to either European site meeting its conservation objectives.

6. Conclusion

Policies

6.1 None of the policies within the East Ayrshire LDP2 are considered likely to result in significant effects on the qualifying features of any European sites, either alone or in-combination with other plans or projects.

6.2 This is due to a lack of impact pathways and/or the presence of suitably worded policies that aim to protect the environment, including designated and non-designated sites, and promote the sustainable and managed use of natural resources.

6.3 Likely significant effects were therefore excluded for all policies contained within LDP2 and none were taken forward to the appropriate assessment stage.

Site allocations

6.4 There are no site allocations within LDP2 for which likely significant effects were identified when considering them in isolation. However, the potential for disturbance / recreational pressure impacts to give rise to likely significant effects could not be excluded for any residential development within 5 km of a European site (the only European sites within this distance of allocated sites were the Muirkirk and North Lowther Uplands SPA and Airds Moss SAC). On this basis, a total of 30 sites, as shown in **Table 7**, were screened into appropriate assessment.

6.5 Following appropriate assessment it can be reasonably concluded that none of the site allocations within LDP2 will result in adverse effects on the integrity of European sites either alone or in-combination with other plans or projects for the reasons described in **Paragraph 5.19** above.

Overall conclusion

6.6 Having gone through the HRA process, it can be concluded that adoption and implementation of the East Ayrshire LDP2 will have no adverse effects on the integrity of any European sites.

6.7 The conclusions of the Habitats Regulations Appraisal of LDP2 must be subject to HRA at future stages of the planning process, including at project level, when more information should be available to inform the assessment since it is conceivable that the detailed design of a particular proposal may identify issues that cannot be identified or assessed based on the level of detail available when preparing a local development plan. As such, the conclusion of the HRA for LDP2 does not mean consent for any development within any given allocated site will be granted, nor does it replace the more detailed project-level HRA that will be required in order to determine any planning consents.

7. References

7.1 Anderson, P. (1990). Moorland Recreation and Wildlife in the Peak District. Peak Park Joint Planning Board, Bakewell. Taken from Calderdale Local Plan HRA and referenced in the Bradford Core Strategy HRA.

7.2 Banks, P.B. and Bryant, J.Y. (2007). Four-legged friend or foe? Dog walking displaces native birds from natural areas. Biology Letters 3, pp 14.

7.3 CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1 – Updated September 2019. Chartered Institute of Ecology and Environmental Management, Winchester.

7.4 Gill, J.A., Sutherland, W.J. and Norris, K. (1998). The consequences of human disturbance for estuarine birds. RSPB Conservation Review 12, pp 67-72.

7.5 Kruuk, H. (1995) Wild Otters, Predation and Populations. Oxford University Press, Oxford.

7.6 Kurz. I. and Costello, M.J. (1999). An Outline of the Biology, Distribution and Conservation of Lampreys in Ireland. Irish Wildlife Manuals, No. 5.

7.7 Liley, D., Clarke, R.T., Mallord, J.W. and Bullock, J.M. (2006a). The effect of urban development and human disturbance on the distribution and abundance of nightjars on the Thames Basin and Dorset Heaths. Footprint Ecology report for Natural England.

7.8 Liley, D., Clarke, R.T., Underhill-Day, J. and Tyldesley D.T. (2006b). Evidence to support the Appropriate Assessment of development plans and projects in south-east Dorset. Footprint Ecology report for Dorset County Council.

7.9 Holman, C., Barrowcliffe, R., Hawker, G., Hawkins, C., Horrocks, S. and Prismall, F. (2019). A guide to the assessment of air quality impacts on designated nature conservation sites (Version 1.0). Institute of Air Quality Management, London.

7.10 Miller, S.G., Knight, R.L. and Miller, C.K. (2001). Wildlife responses to pedestrians and dogs. Wildlife Society Bulletin 29, pp 124-132.

7.11 Riddington, R., Hassall, M., Lane, S.J., Turner, P.A. and Walters, R. (1996). The impact of disturbance on the behaviour and energy budgets of Brent geese. Bird Study 43, pp 269-279.

7.12 Riley, J. (2003). Review of Recreational Disturbance Research on Selected Wildlife in Scotland. Scottish Natural Heritage.

7.13 Scottish Government (2020). EU Exit: The Habitats Regulations in Scotland. December 2020. Available from: https://www.gov.scot/publications/eu-exit-habitats-regulations-scotland-2/.

7.14 SNH (2019). SNH Guidance Note. The handling of mitigation in Habitats Regulations Appraisal – the People Over Wind CJEU judgement. Available from: https://www.nature.scot/gd/node/3168427.

7.15 SNH (2016). Assessing Connectivity with Special Protection Areas (SPAs). Version 3, June 2016. Available from: https://www.nature.scot/assessing-connectivity-special-protection-areas.

7.16 SNH (2015). Habitats Regulations Appraisal of Plans: Guidance for Plan-Making Bodies in Scotland. Version 3.0, January 2015. Available from: https://www.nature.scot/habitats-regulations-appraisal-plans-guidance-plan-making-bodies-scotland-jan-2015.

7.17 SNH (2014). Natura Casework Guidance: How to consider plans and projects affecting Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Available from: https://www.nature.scot/natura-casework-guidance-how-consider-plans-and-projects-affecting-special-areas-conservation-sacs.

7.18 Weitowitz, D,C., Panter, C., Hoskin, R. and Liley, D. (2019). The effect of urban development on visitor numbers to nearby protected nature conservation sites. Journal of Urban Ecology, 1-12.

7.19 Woodroffe, G. (2001). The Otter. Mammal Society, London.

Appendix A - Figures

Figure 1 – European Sites

Figure 2 – Site Allocations

Bankhead Moss, Beith SAC
Cockinhead Moss SAC
Dykeneuk Moss SAC
Coalburn Moss SAC
Muirkirk and North Lowther Uplands SPA
Airds Moss SAC
Upper Nithsdale Woods SAC
Merrick Kells SAC
Galloway Oakwoods SAC
Solway Firth SAC

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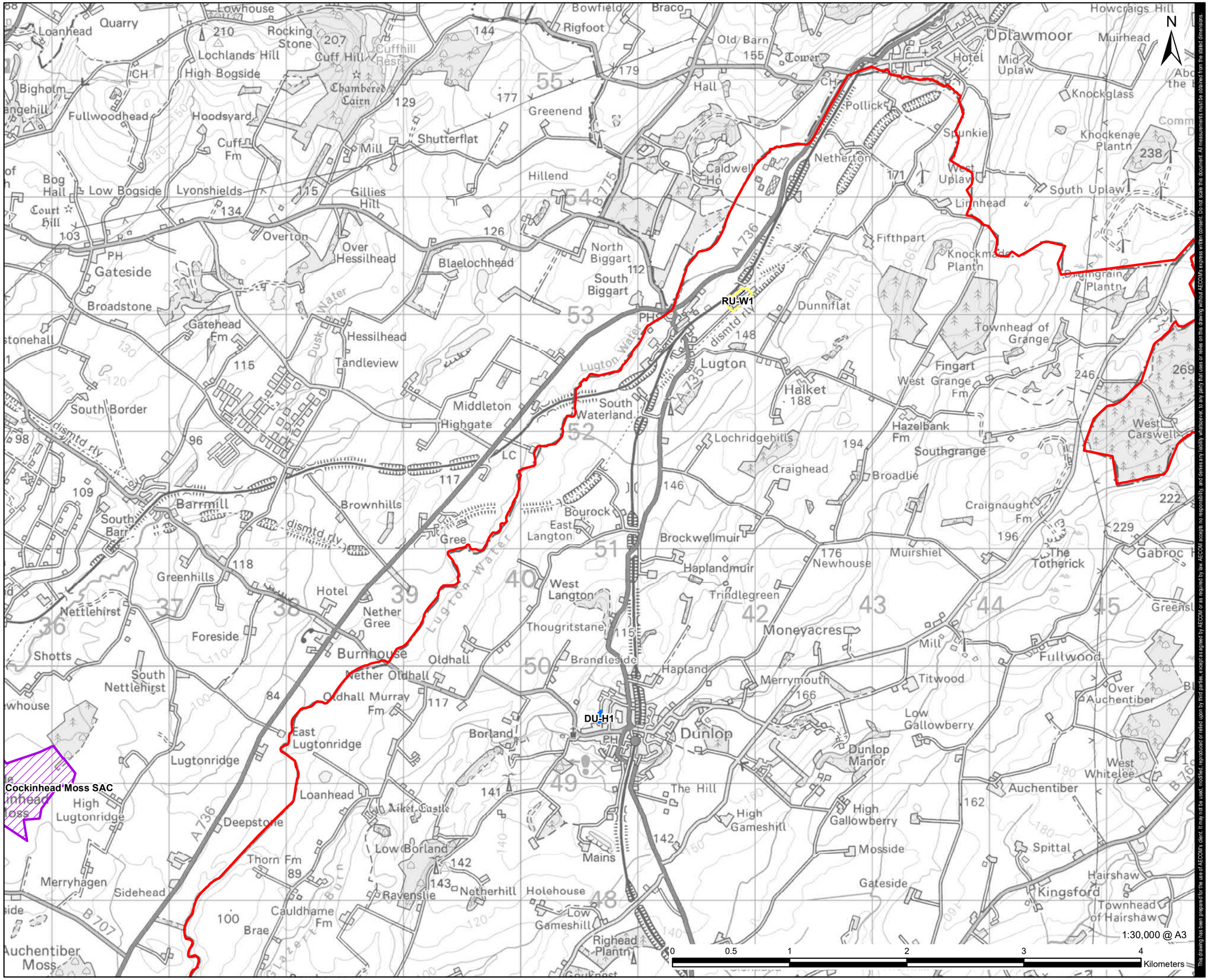

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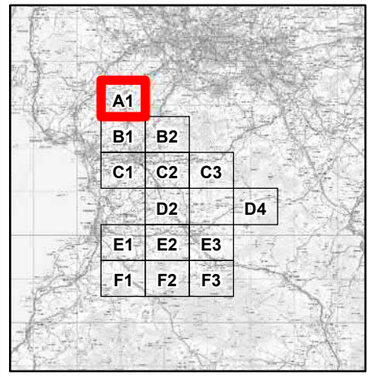

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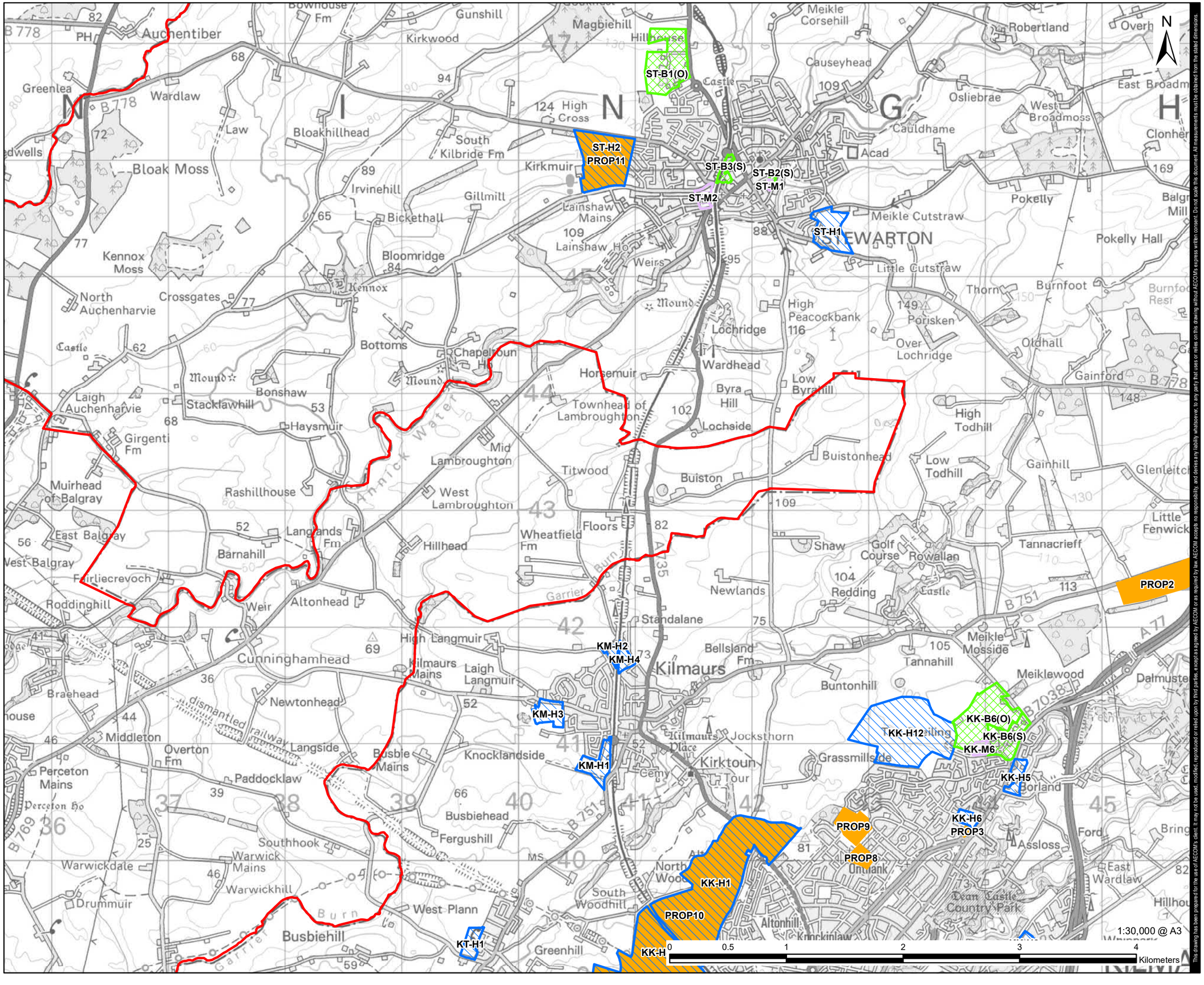

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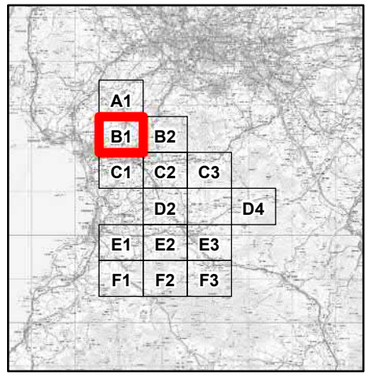

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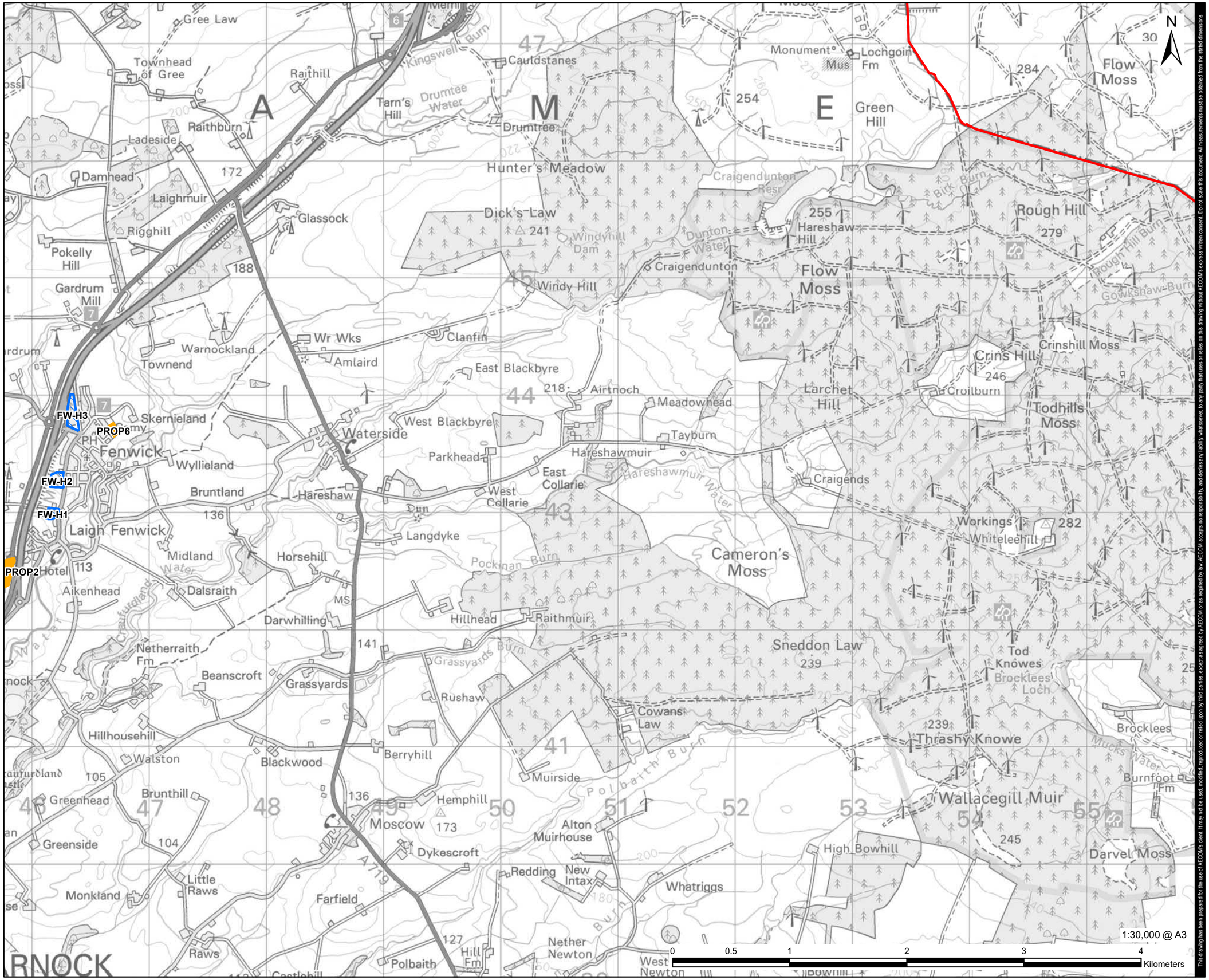

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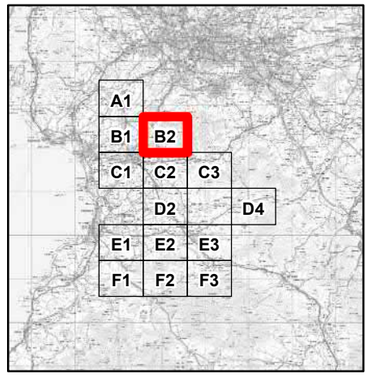

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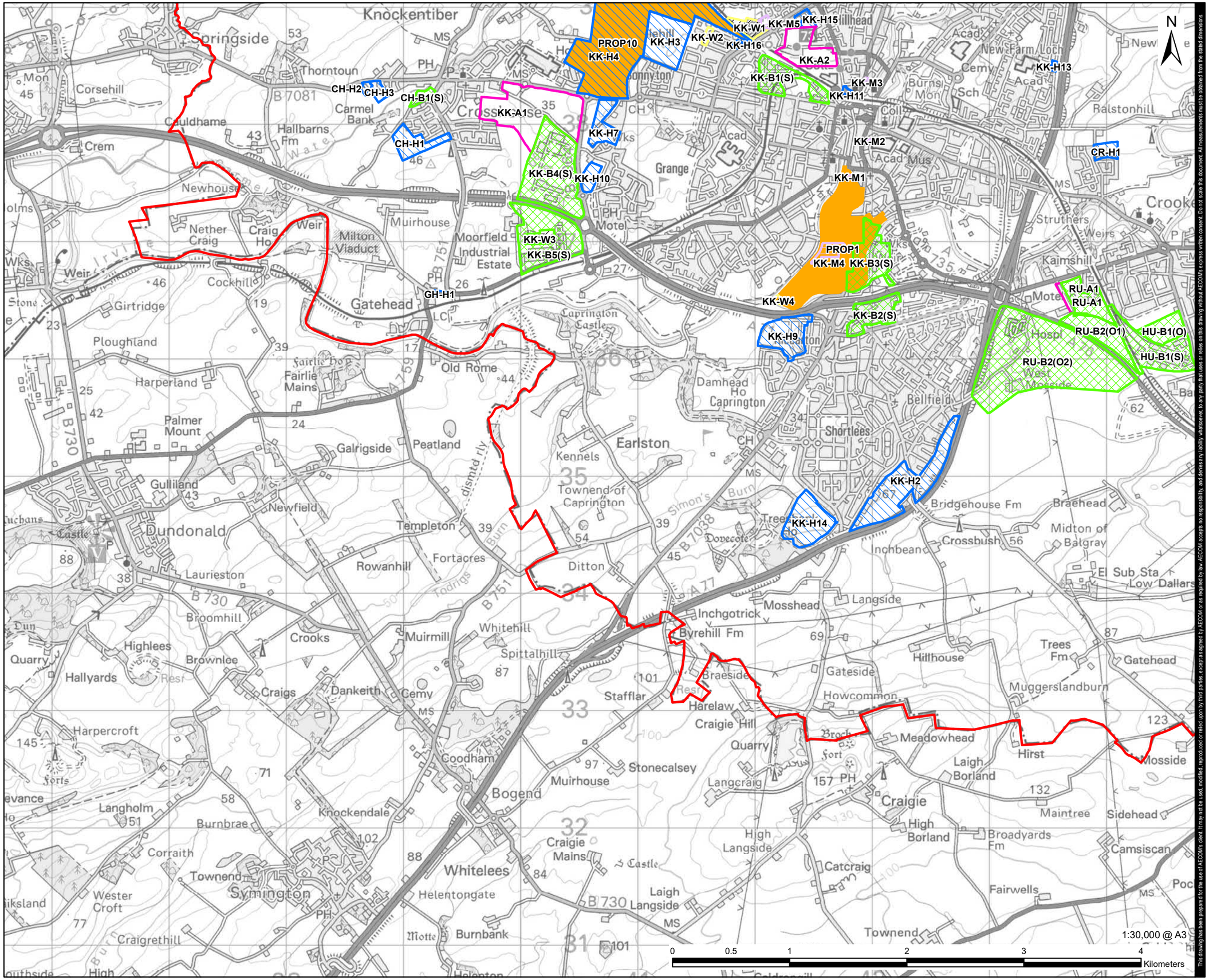

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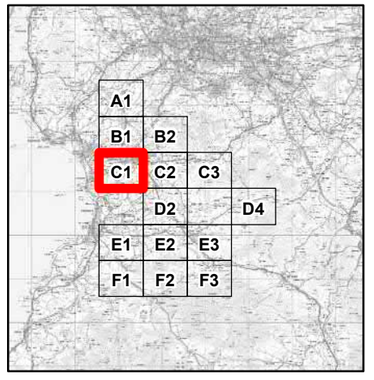

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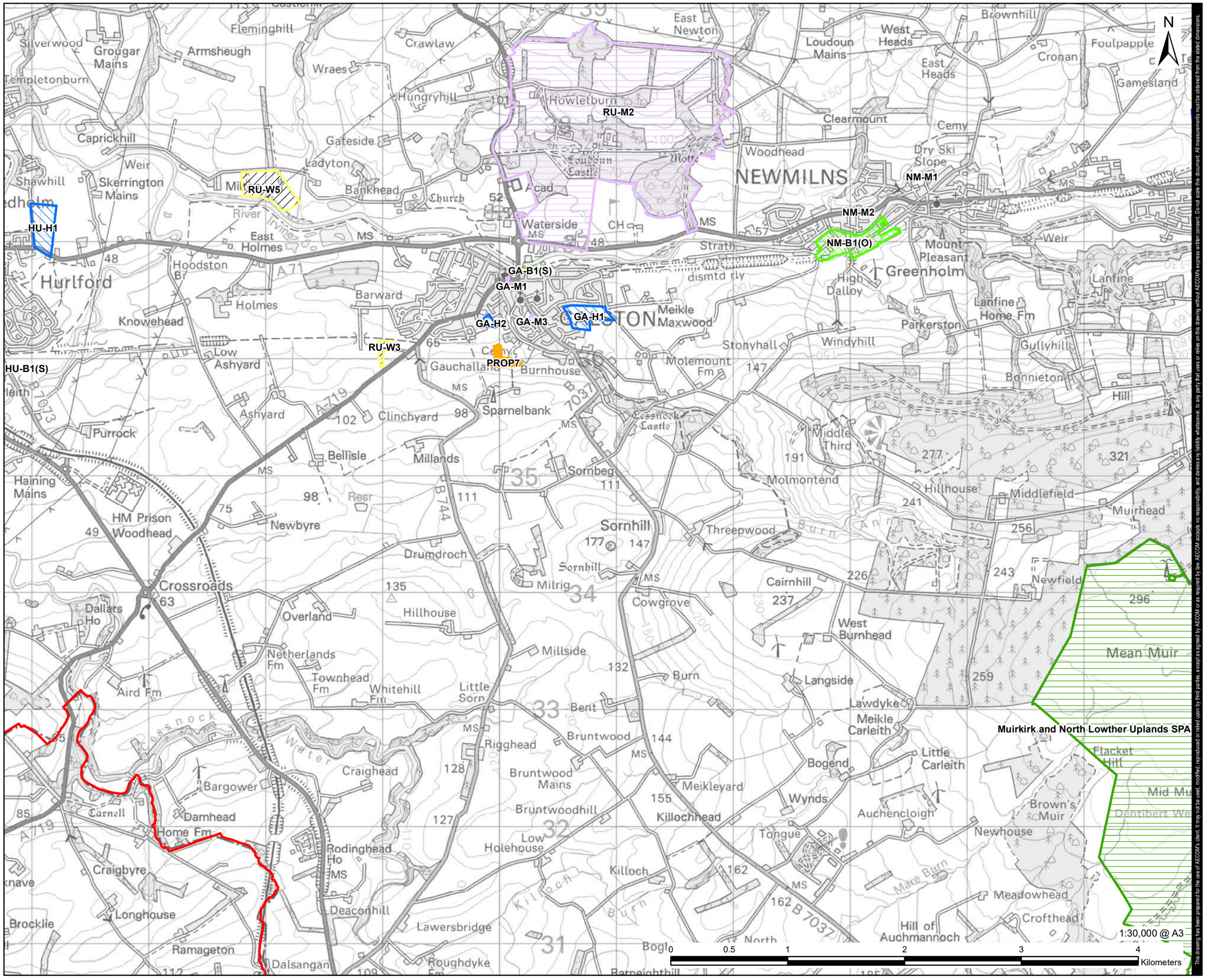

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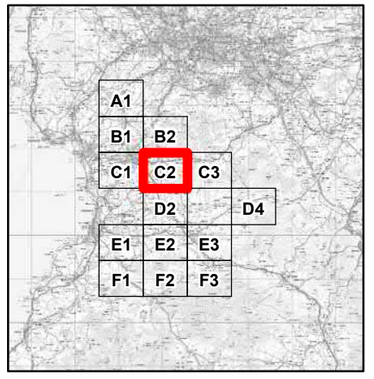

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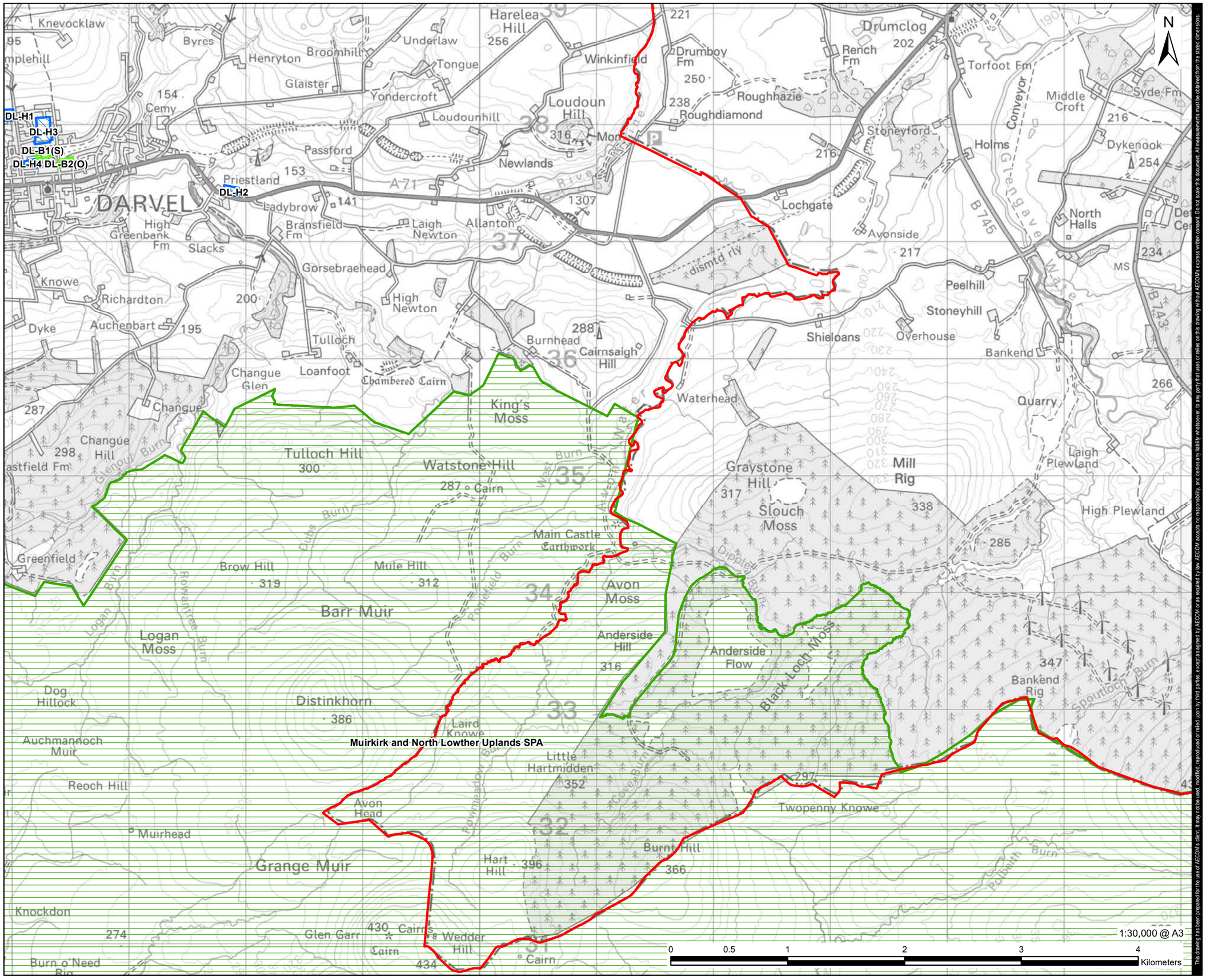

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- LDP2 - Waste Management Facilities
- LDP2 - Miscellaneous

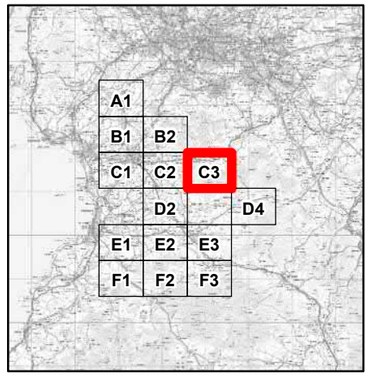

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FIGURE TITLE
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FIGURE NUMBER
Figure 2 - C3

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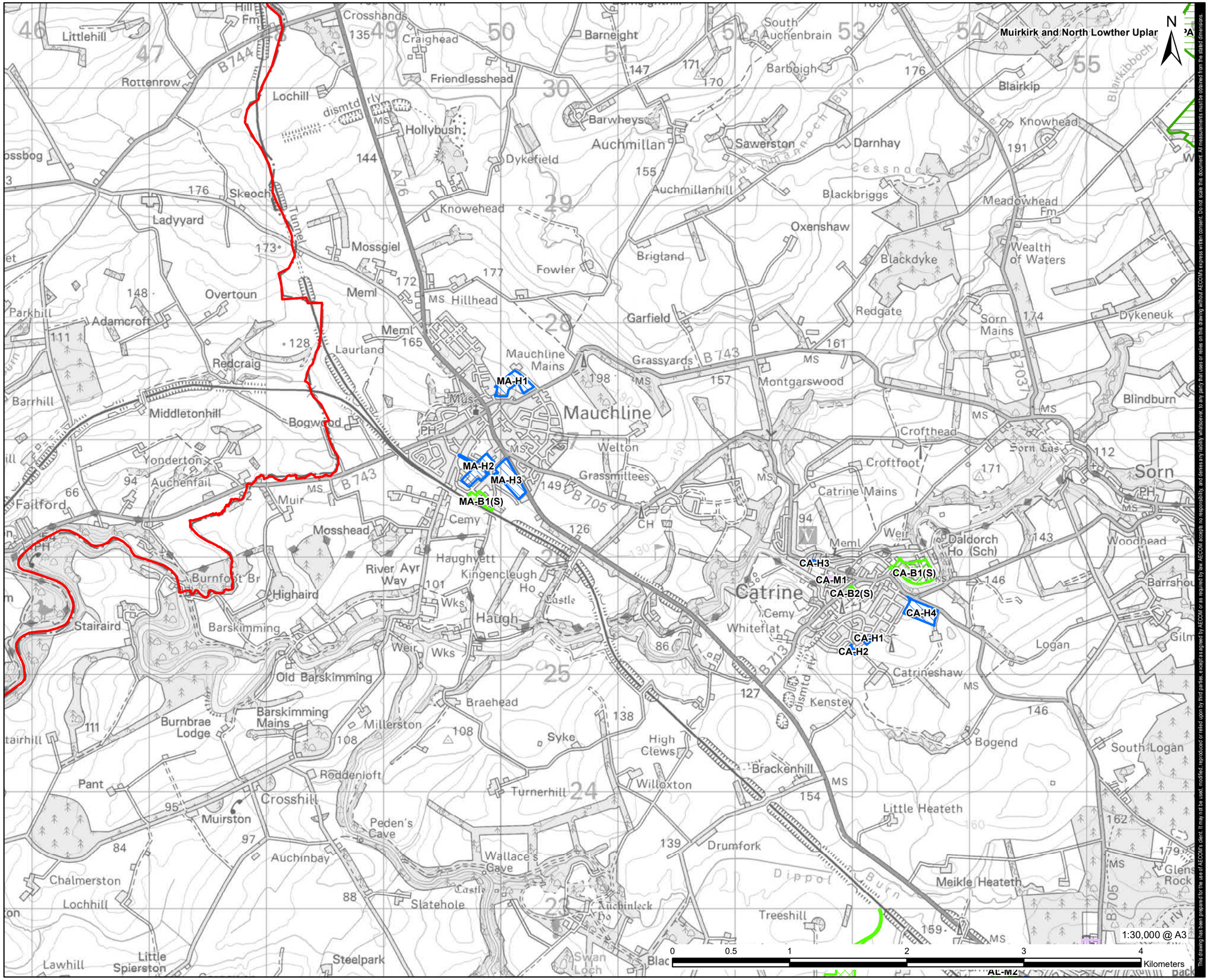

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LEGEND

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- Special Area of Conservation
- Special Protection Area
- LDP2 - AGD
- LDP2- Business/Industry
- LDP2 - Proposals
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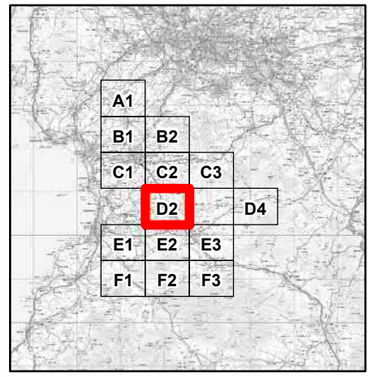

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FIGURE TITLE

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FIGURE NUMBER

Figure 2 - D2

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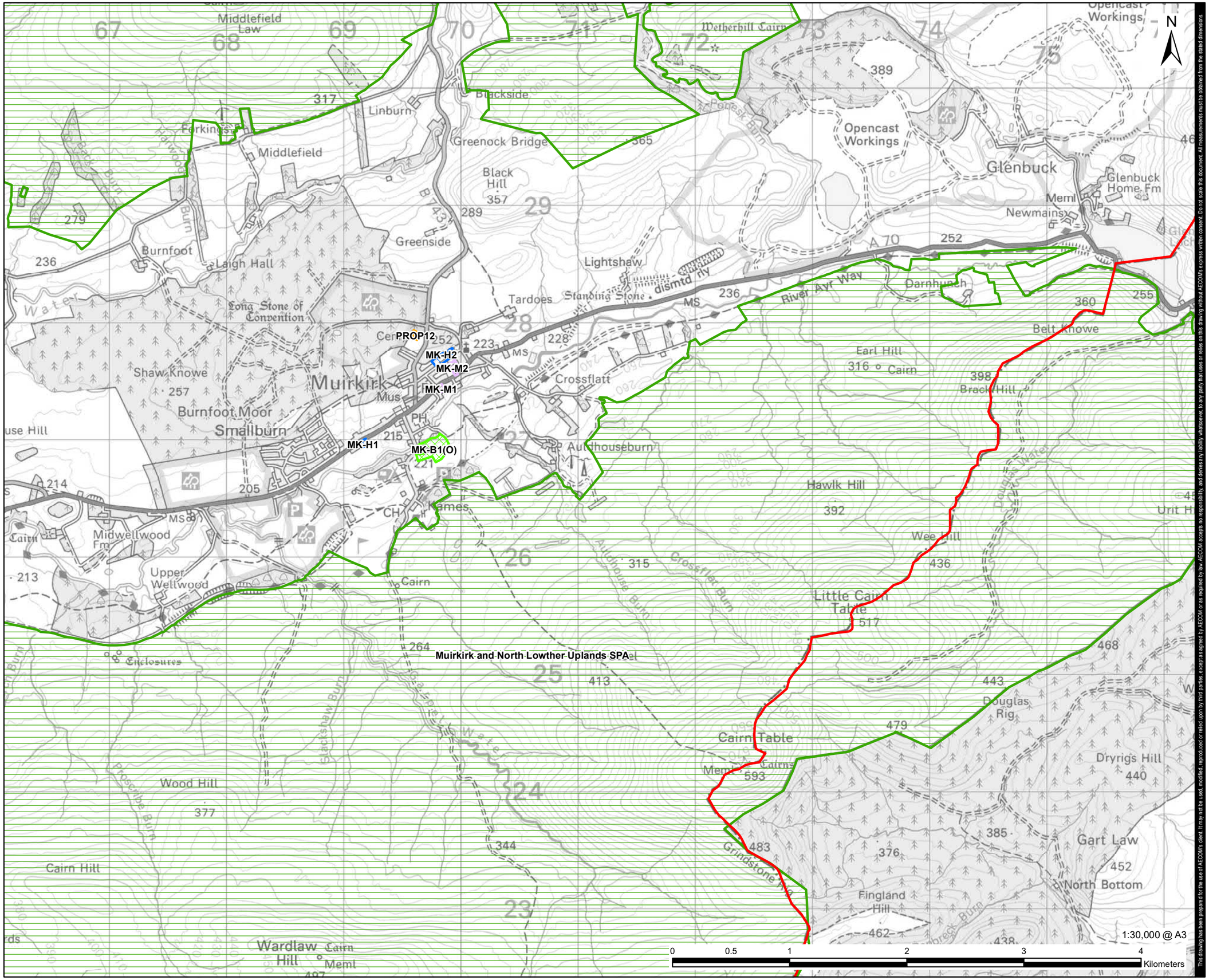

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LEGEND

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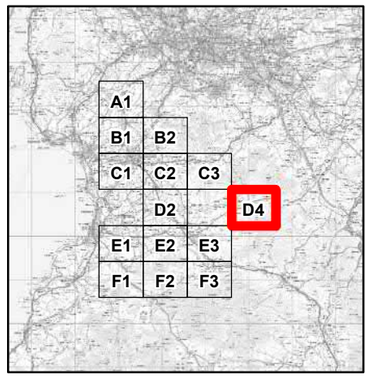

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FIGURE TITLE

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DG-H1
PROP5
DG-B1(S)
DG-B2(S)
DG-H2
DR-H1
PROP4

1:30,000 @ A3

0 0.5 1 2 3 4 Kilometers

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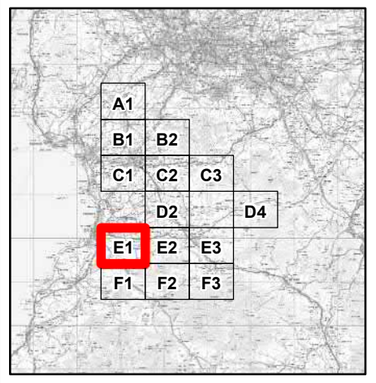

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FIGURE TITLE
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FIGURE NUMBER
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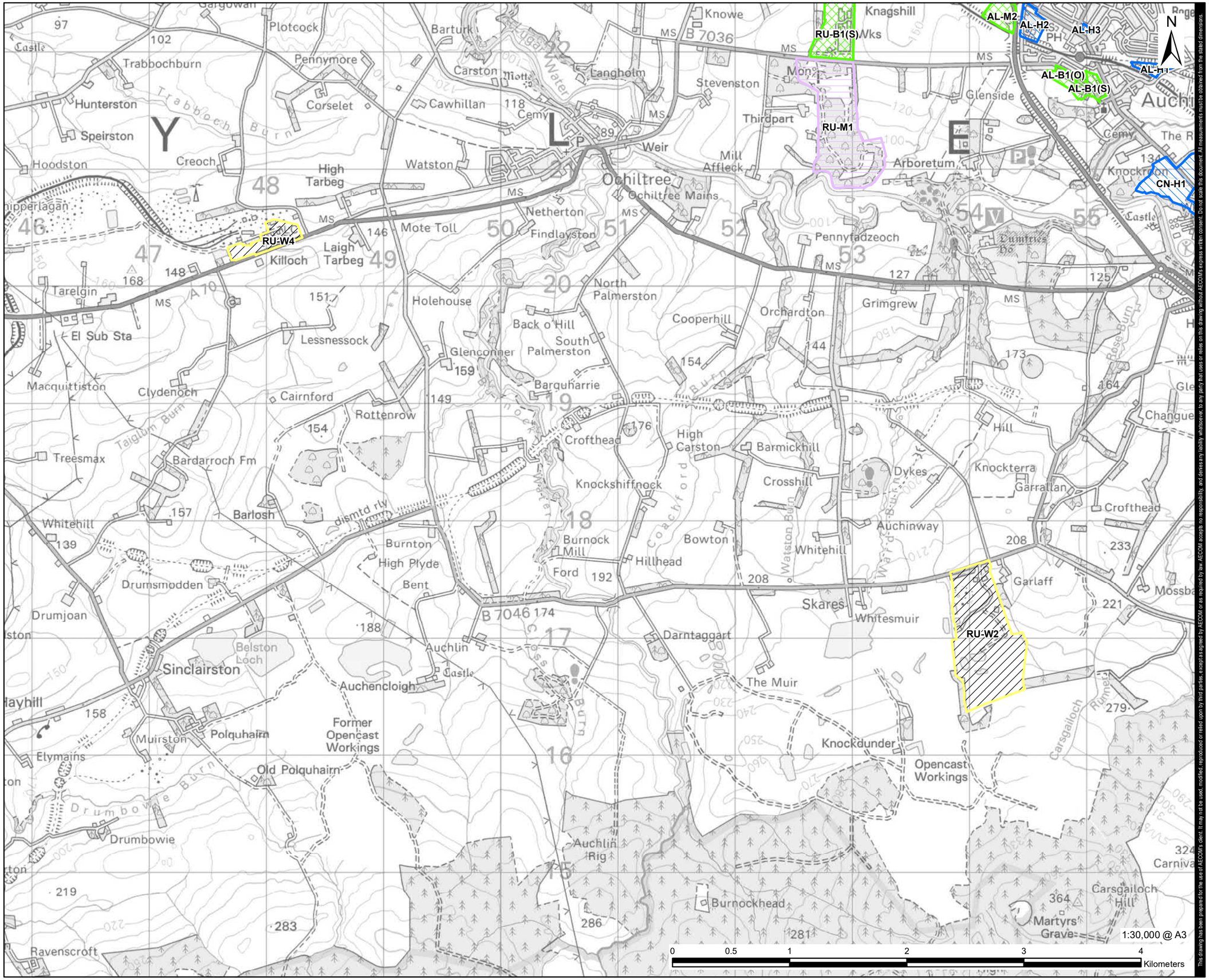

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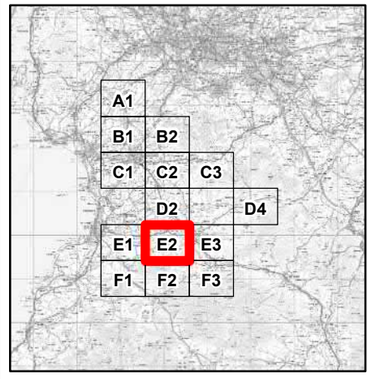

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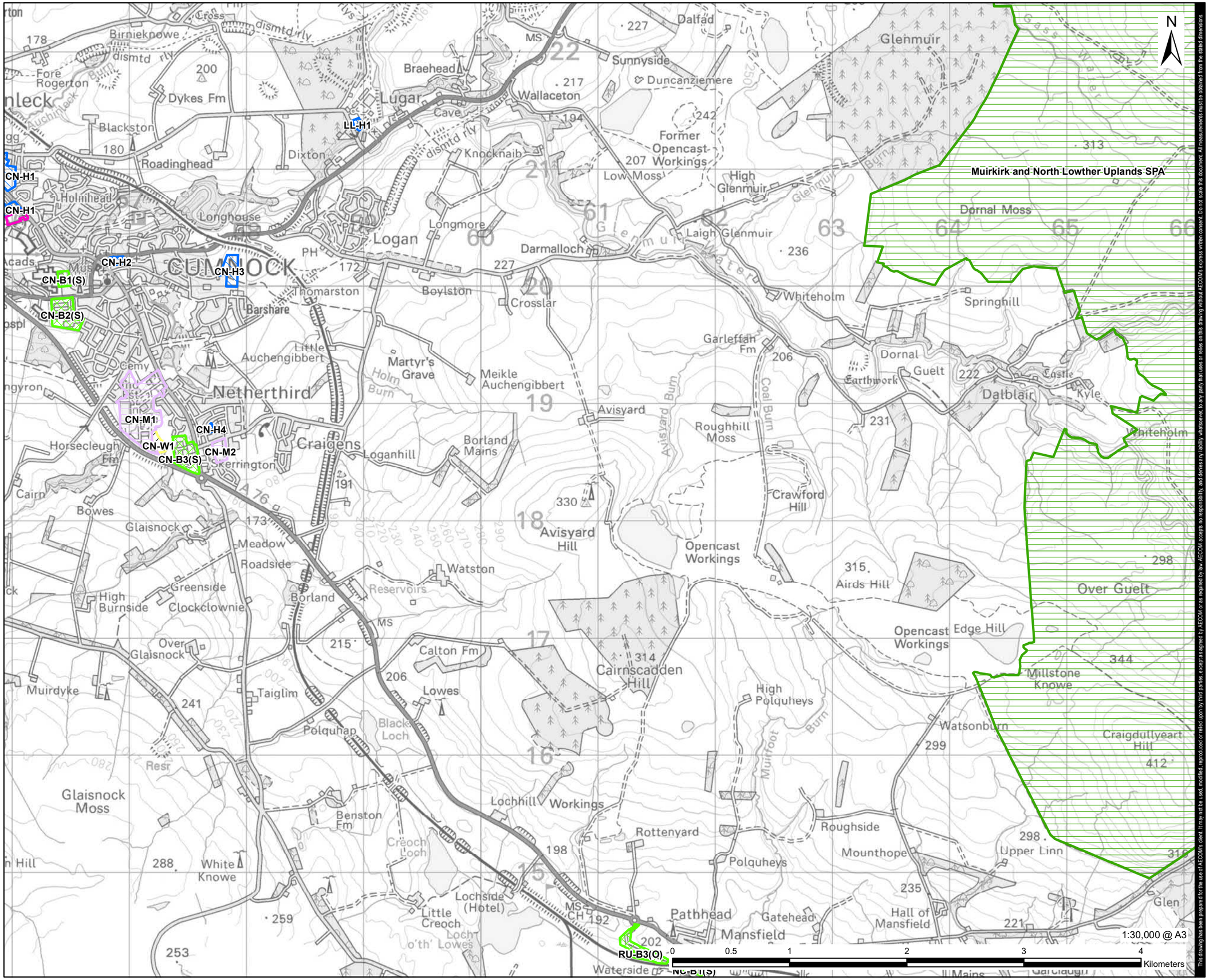

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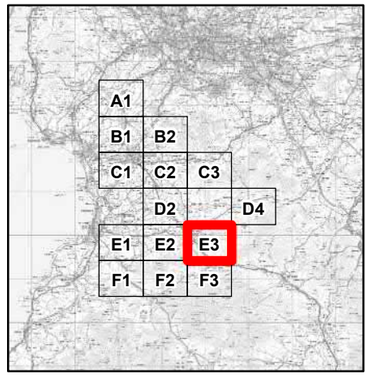

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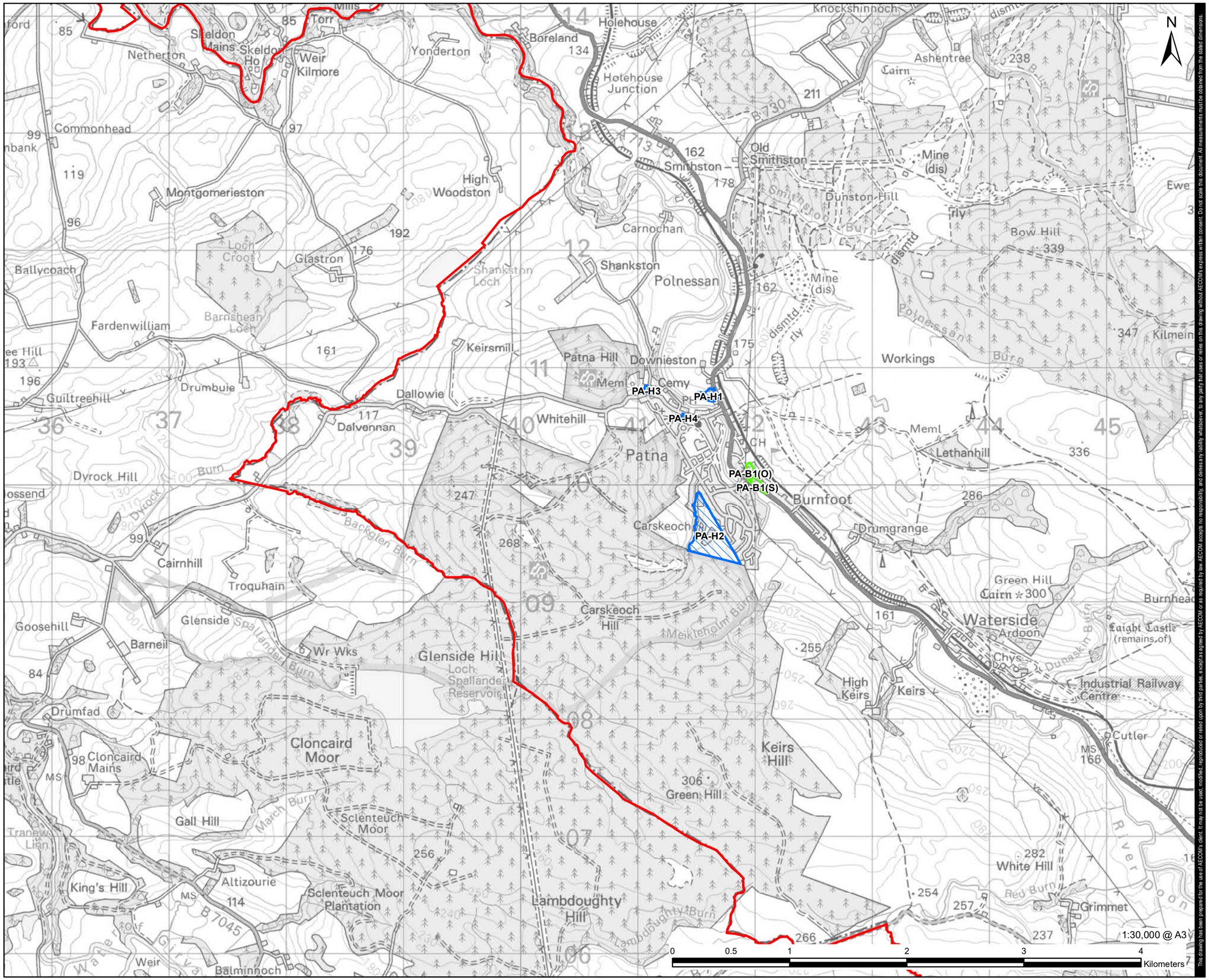

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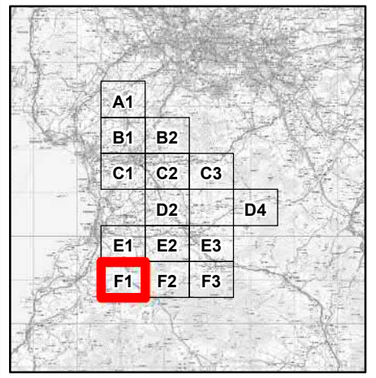

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FIGURE TITLE
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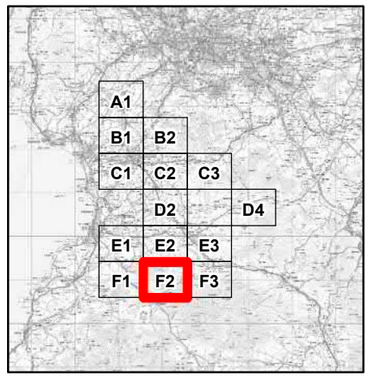

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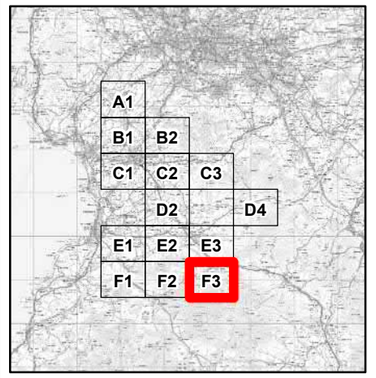

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FIGURE TITLE

Allocated Sites

FIGURE NUMBER

Figure 2 - F3

Appendix B - Details of European sites scoped into HRA of LDP2

Airds Moss SAC

Airds Moss SAC lies approximately 2 km north of Cumnock. It overlaps or is linked to two further protected areas: Muirkirk and North Lowther Uplands SPA and Muirkirk Uplands Site of Special Scientific Interest (SSSI). Airds Moss SAC component habitats include bogs, marshes, fens, water fringed vegetation, coniferous woodland, humid grassland, and mesophile grassland. It is one of the few areas of south-west Scotland that has retained low-altitude blanket bogs, which are listed as a Habitats Directive Priority habitat. Blanket bog is also deemed to be a priority for restoration by the Scottish Government. The vegetation is largely dominated by purple moor-grass *Molinia caerulea* where the site has been altered through past drainage and mineral extraction. In other parts, however, typical bog vegetation dominates, including heather *Calluna vulgaris*, cotton-grasses (*Eriophorum vaginatum* and *E. angustifolium*) deergrass *Trichophorum cespitosum*, and cross-leaved heath *Erica tetralix*. Furthermore, beak-sedge *Rhynchospora alba*, cranberry *Vaccinium oxycoccos* and carpets of the bog-moss *Sphagnum magellanicum* have been found to be abundant. Other characteristic bog plants include bog asphodel *Narthecium ossifragum*, round-leaved sundew *Drosera rotundifolia,* and bog rosemary *Andromeda polifolia.*

Blanket bog at Airds Moss SAC is in unfavourable condition due to active drainage, under-grazing, erosion, and afforestation. Measures to restore bog habitat have been and include ditch damming, reintroduction of livestock to certain areas and reduction of livestock in other areas, and the restoration of all areas of deep peat. Despite ditch damming being carried out over the past decade, the latest Site Condition Monitoring visit in 2016 deemed the blanket bog condition to be Unfavourable with No change.

The conservation objectives for Airds Moss SAC are:

- to ensure that the qualifying feature of Airds Moss SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status; and,
- to ensure that the integrity of Airds Moss SAC is restored by meeting the following objectives:
  - restore the extent and distribution of the habitat within the site;
  - restore the structure, function and supporting processes of the habitat; and,
  - restore the distribution and viability of typical species of the habitat.

Merrick Kells SAC

Merrick Kells SAC is located within the Galloway Forest Park. Its component habitats include but are not limited inland waterbodies, bogs, marshes, fens, heath, humid grassland, and mesophile grassland. The following habitats present within Merrick Kells SAC are Annex I listed priority habitats: North Atlantic wet heaths with *Erica tetralix*, siliceous alpine and boreal grasslands, and blanket bogs. Merrick Kells SAC is Scotland's most southerly area of blanket bogs, with a high cover of bog-mosses *Sphagnum* spp., including *S. papillosum, S. magellanicum*, and *S. pulchrum*. Bog-rosemary also occurs. Merrick Kells SAC also holds the best developed area of siliceous alpine and boreal grasslands in the Southern Uplands of Scotland, which hosts moss-heath *Carex bigelowii – Racomitrium lanuginosum* , woolly fringe-moss *Racomitrium lanuginosum,* and grass-heath *Nardus stricta – Carex bigelowii* . Finally, Merrick Kells SAC is the most extensive representation of wet heath in the UK on an upland site south of the Scottish Highlands.

In relation to the qualifying habitats, the conservation for Merrick Kells SAC are:

- to avoid deterioration of the qualifying habitats thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and,
- to ensure for the qualifying habitats that the following are maintained in the long term:
  - extent of the habitat on site;
  - distribution of the habitat within site;

  - structure and function of the habitat;
  - processes supporting the habitat;
  - distribution of typical species of the habitat;
  - viability of typical species as components of the habitat; and,
  - no significant disturbance of typical species of the habitat.

In relation to otter, the conservation objectives for Merrick Kells SAC are:

- to avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and,
- to ensure for the qualifying species that the following are maintained in the long term:
  - population of the species as a viable component of the site;
  - distribution of the species within site;
  - distribution and extent of habitats supporting the species;
  - structure, function and supporting processes of habitats supporting the species; and,
  - no significant disturbance of the species.

Muirkirk and North Lowther Uplands SPA

Muirkirk and North Lowther Uplands SPA is located approximately 5 km east of Cumnock and overlaps with Airds Moss SAC. Its boundaries are further linked with those of North Lowther Uplands SSSI, Blood Moss and Slot Burn SSSI, Garpel Water SSSI, and Ree Burn and Glenbuck Loch SSSI. The predominant habitats of Muirkirk and North Lowther Uplands SPA include semi-natural areas of blanket bog, acid grassland and heath.

Muirkirk and North Lowther Uplands SPA is designated for regularly supporting populations of European importance of the Annex 1 species:

- hen harrier (between 1994 and 1998, an average of 29.2 breeding females, 6% of the British population);
- short-eared owl (between 1997 and 1998, an average of 26 pairs, 3% of the British population);
- merlin (between 1989 and 1998, an average of 9 pairs, 0.7% of the British population and selected as one of the most suitable sites for merlin in Great Britain);
- peregrine (between 1992 and 1996, an average of 6 pairs, 0.5% of the British population and selected as one of the most suitable sites for peregrine in Great Britain); and,
- golden plover (1999, an estimated minimum of 154 pairs, 0.7% of the British population and selected as one of the most suitable sites for golden plover in Great Britain).

The conservation objectives for Muirkirk and North Lowther Uplands SPA are:

- to avoid deterioration of the habitats of the qualifying species (lor significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and,
  - to ensure for the qualifying species that the following are maintained in the long term:
  - population of the species as a viable component of the site;
  - distribution of the species within site;
  - distribution and extent of habitats supporting the species;
  - structure, function and supporting processes of habitats supporting the species; and,
  - no significant disturbance of the species.

Dykeneuk Moss SAC

Dykeneuk Moss SAC is located approximately 6 km north-east of Killwinning. The site comprises bogs, marshes, water-fringed vegetation, fens, humid grassland, mesophile grassland, improved grassland, and broadleaved woodland. Dykeneuk Moss SAC overlaps with the Dykeneuk Moss SSSI and is designated due to the presence of active raised bog, a priority habitat of the Habitats Directive. Vegetation present within the active raised bog includes *Sphagnum papillosum*, *S. magellanicum* and cranberry.

The active raised blanket bog at Dykeneuk Moss SAC was deemed to be maintained in a Favourable condition during the last Site Condition Monitoring visit in 2013. Despite this, at the time of its designation in 2005, Dykeneuk Moss had 'degraded raised bog' listed as a qualifying feature. This is no longer present, with all areas of bog now supporting peat-forming vegetation (i.e., it is all considered to be 'active'). However, the issues of grazing, excessive water loss, woodland encroachment and nutrient enrichment still require management.

The conservation objectives for Dykeneuk Moss SAC are:

- to ensure that the qualifying feature of Dykeneuk Moss SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status; and,
- to ensure that the integrity of Dykeneuk Moss SAC is maintained by meeting the following objectives:
  - maintain the extent and distribution of the habitat within the site;
  - maintain the structure, function and supporting processes of the habitat; and,
  - maintain the distribution and viability of typical species of the habitat.

Cockinhead Moss SAC

Cockinhead Moss SAC is located approximately 6 km east of Dalry. The site comprises bogs, marshes, water-fringed vegetation, fens, other arable land, and broadleaved woodland. Cockinhead Moss SAC overlaps with Cockinhead Moss SSSI and was designated due to the presence of active raised bog and degraded raised bog. Vegetation is dominated by bog-moss species, including *Sphagnum capillifolium, S. papillosum, S. magellanicum magellanic, S. austinii,S. tenellum, S. fallax.,* and *S. cuspidatum*.

The active raised bog at Cockinhead Moss SAC was deemed so be in Unfavourable but Recovering condition in 2015, while the degraded raised bog was considered to be in Unfavourable and Declining condition in 2002, when last assessed.

The conservation objectives for Cockinhead Moss SAC are:

- to ensure that the qualifying features of Cockinhead Moss SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status; and,
- to ensure that the integrity of Cockinhead Moss SAC is restored by meeting the following objectives:
  - maintain the extent and distribution of the habitat within the site;
  - restore the structure, function and supporting processes of the habitat; and,
  - restore the distribution and viability of typical species of the habitat.

Bankhead Moss, Beith SAC

Bankhead Moss, Beith SAC is located approximately 2 km south-west of Barrmill. The site is composed entirely of bogs, marshes, water-fringed vegetation and fens. The SAC overlaps with Bankhead Moss, Beith SSSI. Bankhead Moss, Beith SAC was designated due to the presence of active raised bog. Vegetation is dominated by bog-moss species, including *Sphagnum capillifolium, S. papillosum, S. magellanicum,* and *S. cuspidatum* and a secondary lagg fen has developed in abandoned areas of peat-cutting.

The active raised bog at Bankhead Moss, Beith SAC was deemed to be maintained in a Favourable condition when last assessed in 2009. Despite this, current and historical issues of grazing, excessive water loss, shrub encroachment, and nutrient enrichment still require management.

The conservation objectives for Bankhead Moss, Beith SAC are:

- to ensure that the qualifying feature of Bankhead Moss, Beith SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status; and,
- to ensure that the integrity of Bankhead Moss, Beith SAC is maintained by meeting the following objectives:
  - maintain the extent and distribution of the habitat within the site;
  - maintain the structure, function and supporting processes of the habitat; and,
  - maintain the distribution and viability of typical species of the habitat.

Upper Nithsdale Woods SAC

Upper Nithsdale Woods SAC is composed of four separate areas, all within a close distance of the village Sanquhar. It overlaps four further protected areas: Mennock Water SSSI, Stenhouse Wood SSSI, Chanlockfoot SSSI, and Back Wood SSSI. Upper Nithsdale Woods SAC contains several habitat types, humid grassland, mesophile grassland, and (most predominantly, at 95% coverage) broadleaved woodland. The areas which make up the Upper Nithsdale Woods SAC are important due to their being highly fragmented areas of semi-natural woodland. The woodland is typically dominated by ash *Fraxinus excelsior*, with a dense hazel *Corylus avellana* understorey, and a rich herbaceous ground flora characteristic of the habitat type.

Upper Nithsdale Woods SAC is in Unfavourable and Declining condition due to grazing impacts, incursion of non-native species, and the presence of sycamore *Acer pseudoplatanus* (a non-native tree species).

The conservation objectives for Upper Nithsdale Woods SAC are:

- to ensure that the qualifying feature of Upper Nithsdale Woods SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status; and,
- to ensure that the integrity of Upper Nithsdale Woods SAC is restored by meeting the following objectives:
  - maintain the extent and distribution of the habitat within the site;
  - restore the structure, function and supporting processes of the habitat; and,
  - restore the distribution and viability of typical species of the habitat.

Galloway Oakwoods SAC

Galloway Oakwoods SAC is composed of several separate areas, two approximately 20 km south-east of Newton Stewart, and the rest within 20 km north of Newton Stewart. It overlaps four further protected areas: Wood of Cree SSSI, Carstramon Wood SSSI, Glentrool Oakwoods SSSI, and Killiegowan Wood SSSI. The habitat is entirely broadleaved woodland, with Annex I listed habitat western acidic oak woodland present. This habitat comprises a range of woodland types dominated by mixtures of oak (*Quercus robur* and/or *Q. petraea*) and birch (*Betula pendula* and/or *B. pubescens*).

The western acidic oak woodland within Galloway Oakwoods SAC is in Unfavourable and Declining condition due to hydrology impacts, herbivore impacts, non-native species invasion, and the presence of sycamore and beech *Fagus sylvatica* (both non-native tree species).

The conservation objectives for Galloway Oakwoods SAC are:

- to ensure that the qualifying feature of Upper Galloway Oakwoods SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status; and,
- to ensure that the integrity of Galloway Oakwoods SAC is restored by meeting the following objectives:
  - maintain the extent and distribution of the habitat within the site;
  - restore the structure, function and supporting processes of the habitat; and,
  - restore the distribution and viability of typical species of the habitat.

Coalburn Moss SAC

Coalburn Moss is one of the largest and best examples of active lowland raised bog in the UK. The raised bog habitat is extensive and exhibits subtle hummock and hollow patterning. There is a range of bog-mosses including *Sphagnum papillosum* and *S. magellanicum*, the latter a key species of active raised bogs. Heather and hare's-tail cottongrass *Eriophorum vaginatum* tend to dominate and reindeer-moss lichen *Cladonia* spp. is common. Cranberry is also reported to be present. Around the margins of the raised bog is a secondary lagg of modified vegetation dominated by soft rush *Juncus effusus* and tufted hair-grass *Deschampsia cespitosa*. Birch woodland occurs to the west and south of the SAC. There are also areas of wet and dry grassland within the SAC boundary. Grassland lying over peat is considered to be part of the same hydrological unit as the active raised bog and is important in maintaining the hydrological condition of the SAC as a whole.

Measures to restore the degraded raised bog habitat at Coalburn Moss have been implemented by FLS, including ditch blocking, scrub and tree removal and the implementation of a conservation grazing regime. Such measures appear to be resulting in beneficial effects such that the condition of the degraded bog qualifying habitat was last assessed in 2012 as being Unfavourable but Recovering.

The conservation objectives for Coalburn Moss SAC are:

- to ensure that the qualifying features of Coalburn Moss SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status; and,
- to ensure that the integrity of Coalburn Moss SAC is restored by meeting the following objectives:
  - maintain the extent and distribution of the habitat within the site;
  - restore the structure, function and supporting processes of the habitat; and,
  - restore the distribution and viability of typical species of the habitat.

Solway Firth SAC

The Solway is a large, complex estuary on the west coast of Britain. It is one of the least-industrialised and most natural large estuaries in Europe. Tidal streams in the estuary are moderately strong and levels of wave energy can be high. There is considerable seasonal fluctuation in water temperature, owing to the shallow nature of the estuary. The sediment habitats present, mainly dynamic sandflats and subtidal reefs and sediment banks, are separated by six main river channels, which are continually changing their patterns of erosion and accretion. The estuary has been little affected by enclosure, with the result that it demonstrates unusually large areas of upper marsh and transitions to freshwater grassland communities. There is a greater proportion of sand in the substrate than is found in more southern saltmarshes.

The mid-upper marsh is heavily dominated by saltmarsh rush Juncus gerardii community with smaller areas of the saltmarsh-grass/fescue *Puccinellia/Festuca* communities. The glasswort *Salicornia* spp. saltmarsh is part of a complete sequence of saltmarsh types, from pioneer communities through extensive mid to high-saltmarsh and transition to tidal grazing marsh. The pioneer marshes within this site develop in response to changing river channels and erosion of existing marsh and form part of a dynamic suite of maritime habitats. Some of the species present, for example sea-purslane *Atriplex portulacoides*, common sea-lavender *Limonium vulgare* and lax-flowered sea-lavender *Limonium humile*, are at their northern limit in the UK.

The shingle and sand dune areas of Grune Point and Preston Merse support a typical range of plant species including burnet rose *Rosa pimpinellifolia,* sea-holly *Eryngium maritimum*, bloody crane's-bill *Geranium sanguineum* and the uncommon Isle of Man cabbage *Rhynchosinapis monensis*. Dyer's greenweed *Genista tinctoria* occurs in the small areas of dune heath and grassland.

The dominant species of the in-faunal communities comprise different annelid worms, crustaceans, molluscs and echinoderms, depending on the nature of the substrate. For example, the bivalve molluscs *Fabulina fabula* and *Spisula subtruncata* occur at the edge of sandbanks in fine and medium sand respectively. These communities are richer in the less extreme conditions of the outer estuary. The estuary also provides a migratory passage for sea lampreys *Petromyzon marinus* and river lampreys *Lampetra fluviatilis* to and from their spawning and nursery grounds.

Solway Firth SAC is designated for hosting the following Annex 1 habitats:

- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*);

- estuaries
- fixed dunes with herbaceous vegetation (grey dunes) (dune grassland)*;
- mudflats and sandflats not covered by seawater at low tide (intertidal mudflats and sandflats);
- perennial vegetation of stony banks (coastal shingle vegetation outside the reach of waves);
- reefs; and,
- *Salicornia* and other annuals colonising mud and sand (glasswort and other annuals colonising mud and sand).

Sandbanks which are slightly covered by sea water all the time are a priority habitat on Annex I of the Habitats Directive.

Solway Firth SAC is also designated as it hosts the following Annex 2 species:

- river lamprey; and,
- sea lamprey

The conservation objectives for Solway Firth SAC are:

- to avoid deterioration of the qualifying habitats thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and,
- to ensure for the qualifying habitats that the following are maintained in the long term:
  - extent of the habitat on site;
  - distribution of the habitat within site;
  - structure and function of the habitat;
  - processes supporting the habitat;
  - distribution of typical species of the habitat;
  - viability of typical species as components of the habitat; and,
  - no significant disturbance of typical species of the habitat.

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