

Local Flood Risk Management Strategy

Habitats Regulations Assessment: Screening Report



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1 Introduction

1.1 Background

1.1.1 Peter Brett Associates LLP (PBA) has been appointed by Birmingham City Council (BCC) to carry out a Habitats Regulations Assessment (HRA) of the outline version of the Local Flood Risk Management Strategy (LFRMS) for Birmingham (hereafter referred to as the Strategy). This appointment represents a progression of the HRA assessment process which was initiated in the form of a Preliminary Scoping Assessment of the Strategy undertaken by Amec in September 2013, and the associated production of a Preliminary Scoping Report. This report therefore details the full evaluation of those potential adverse impacts on European sites identified in the Preliminary Scoping Report likely to result from implementation of the Strategy, and assesses the need (or otherwise) for the next stage of the HRA process (Appropriate Assessment) to be implemented.

1.2 Description of the Strategy

- 1.2.1 The Strategy, which would be implemented across the Birmingham City Centre administrative area, considers the impact and consequences of local flood risk. It specifies a number of objectives, including those designed to directly target local flood risk management and the measures required to achieve these objectives. The Strategy sets out a sustainable approach to managing local flood risk which delivers wider environmental objectives. Specific policies of the Strategy aimed at ensuring wider environmental objectives include the following:
 - Policy 6 The City Council will not consent works on ordinary watercourses that increase flood risk or have a detrimental effect on the environment;
 - Policy 18 The City Council will develop a Sustainable Urban Drainage System (SuDS)
 Policy;
 - Policy 19 The City Council will not support the culverting of watercourses and will seek opportunities for de-culverting and naturalisation of watercourses; and,
 - Policy 20 The City Council will ensure that where possible flood risk management actions deliver wider environmental benefits.

1.3 Requirements for Plan assessment

- 1.3.1 Article 6 of the European Habitats Directive (92/43/EEC) provides the means by which the European Union meets its obligations in relation to natural habitats, flora and fauna under the Bern Convention. The main provision of the Directive relevant to this report is concerned with the assessment and review of plans and projects (or in this case, strategies for managing flood risk) which have the potential to affect Natura 2000 sites. Natura 2000 sites include: Special Protection Areas established in accordance with the requirements of the Birds Directive (2009/147/EC as amended) and Special Areas of Conservation established in accordance with the requirements of the Habitats Directive.
- 1.3.2 Articles 6(3) and 6(4) of the Habitats Directive state:
 - 6 (3) Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the

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provisions of paragraph 4, the competent national authorities shall agree to the Strategy or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

6 (4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

1.3.3 The Conservation of Habitats and Species Regulations 2010 (as amended) (Habitats Regulations) transpose into domestic legislation obligations associated with both the European Birds Directive and the Habitats Directive. This was updated by the Conservation of Habitats and Species (Amendment) Regulations 2012. Regulation 102 of the Habitats Regulations is the most pertinent in relation to this report. Regulation 102(1) states:

Where a land use plan—

- (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and
- (b) is not directly connected with or necessary to the management of the site,

the Strategy-making authority for that plan must, before the Strategy is given effect, make an appropriate assessment of the implications for the site in view of that site's conservation objectives.

1.3.4 The term 'European Site' is defined in Regulation 8 of the Habitats Regulations; in practice this term includes Natura 2000 sites and any site over which the provisions of the Habitats Regulations have influence, whether that be through the strict letter of the law or through government policy.

1.4 Purpose of this report

- 1.4.1 This report presents a Stage 1: Screening Assessment of the HRA for the Strategy for Birmingham. It sets out the methodology for the HRA, identifies the European sites that require consideration with regards to likely potential effects arising from the Strategy and revises the assessment undertaken in the Preliminary Scoping Report (Amec, 2013) of the potential for significant impacts on European sites. The report describes the assessment process, identifies any remaining likely significant effects on European sites and presents a conclusion to the assessment. Throughout this report the term 'Habitats Regulations Assessment' covers the whole process of assessing the implications on European sites required under the Habitats Regulations.
- 1.4.2 It should be noted that within the Strategy area and its immediate surrounds there are other sites of nature conservation importance which are not European sites. These other sites are not considered in this report as this report deals with the Habitats Regulations Assessment process only and therefore necessarily focuses on the European sites to which the Habitats Regulations refer. Figure 1, in Section 3 below, identifies all European sites which exist within



20 km of the Strategy area, along with the downstream European sites with the potential for a source-pathway-receptor link, which together are considered to fall within the zone of influence of the Strategy. The zone of influence is considered as being the wider landscape surrounding the Strategy area which is connected to it via reasonable impact pathways.

1.5 Consultation

- 1.5.1 Birmingham City Council has undertaken consultation with a number of stakeholders to date, with regard to the policies within the Strategy, as follows:
 - Selly Park South Flood Action Group;
 - Severn Trent Water;
 - Environment Agency;
 - Natural England; and
 - Birmingham City Council (Resilience Team).
- 1.5.2 Whilst it is recognised there is no statutory requirement to consult with statutory consultees at the Screening Stage of the HRA process, the outcomes of this report were discussed with Grady McLean, Lead Adviser Sustainable Development, North Mercia Area for Natural England, between July and August 2014. Natural England advised against the use of simple distance based criteria to determine the Natura 2000 sites to be considered during the HRA Screening Process. In their response, they suggested that the potential for impacts on the River Trent (which flows into the Humber Estuary SAC/SPA/ Ramsar) should be reviewed, which is included in this revised HRA Report.
- 1.5.3 During further consultation with Mr McLean undertaken between September and November 2014, he confirmed that Natural England's comments had been adequately addressed in the revised HRA Report. Furthermore, Mr McLean confirmed Natural England's agreement with the conclusions of this Screening Assessment (see Appendix B).



2 Methodology

2.1 Approach to plan assessment

- 2.1.1 The approach to the HRA is based on current best practice guidance outlined in The Habitats Regulations Assessment Handbook (DTA Publications Ltd, 2014). The Handbook provides a regularly updated source of guidance on the understanding and interpretation of the Habitats Regulations and consistency in applying their requirements in respect of plans and projects.
- 2.1.2 Under Articles 6(3) and 6(4) of the Habitats Directive, there are four distinct stages to the HRA process:

Stage 1: Screening – Screening plans and projects to see if they would be likely to have a significant effect on a European site, either alone or in combination. Plans or projects not likely to significantly affect a European site will be 'screened-out' of the need for any further assessment. It is important to note that the burden of evidence is to show, on the basis of objective information, that there will be no significant effect; if the effect may be significant, or is not known, that would trigger the need for an Appropriate Assessment. There is European Court of Justice case law to the effect that unless the likelihood of a significant effect can be ruled out on the basis of objective information, then an Appropriate Assessment must be made.

Stage 2: Appropriate Assessment and the Integrity test – Undertaking an 'Appropriate Assessment' and ascertaining whether the Strategy or project would have a significant adverse effect on the integrity of a European site, either alone or in combination. Competent authorities may agree to plans or projects that will not adversely affect the integrity of a European site.

Stage 3: Alternative solutions – Deciding whether there are alternative solutions which would avoid or have a lesser effect on the European site. If there are alternative solutions a potentially damaging plan or project cannot be agreed to, it will need to be changed or refused.

Stage 4: Imperative reasons of overriding public interest and compensatory measures – considering imperative reasons of overriding public interest and securing compensation. Plans or projects may process for imperative reasons of overriding public interest if compensation measures are secured.

- 2.1.3 These four stages are separate to each other and follow on from each other only if the conclusion of the proceeding stage is such that further assessment is required to meet the requirements of the legislation. Whilst HRA is a step-wise process it is also iterative in that through the production of the Strategy and this HRA there have been amendments made to ensure that the legislation and policy framework requirements are met the potential for significant effects on European sites minimised, alongside the delivery of the Strategy.
- 2.1.4 To inform Stage 1 (Screening) of the HRA process, and for each of the subsequent stages where these are required, it is imperative to:
 - Identify the European sites in and around the Strategy area (including the determination of the zone of influence);
 - Identify and list the qualifying features for these sites;
 - Determine the conservation objectives in respect of each qualifying feature; and



- Determine the conservation status of the qualifying features, their condition and the factors influencing them.
- 2.1.5 This information is gathered from citations, condition assessments and other reports produced for the European sites by Natural England and JNCC. The information regarding the European sites has been used to determine the vulnerability of the European sites to potential effects arising from implementation of the Strategy.
- 2.1.6 The approach to the first stage of the Habitats Regulations Assessment (Screening) takes into account the considerations discussed above with reference to all policies within the Strategy, and their potential for and/or likely significant effects on the qualifying features for each of the European sites identified as being within the zone of influence of the Strategy. Each of the policies within the within the Strategy is allocated to one of twelve screening categories which determine whether or not the policies should be screened-out from further consideration, or taken forward to the next stage in the HRA process. The twelve categories are described in the Habitats Regulations Assessment Handbook (DTA Publications Ltd, 2014) and set out in Table 1 below.

Table 1: Screening Categories

Category	Description
А	General Statement of Policy/General – the European Commission recognises that policies which are no more than general statements of policy or general political aspirations should be screened out from further consideration
В	Policies listing general criteria for testing the acceptability/sustainability of proposals should be screened out from further consideration
С	Proposals referred to but not proposed by the Strategy under consideration should be screened out from further consideration.
D	Environmental protection or site-safeguarding policies can be screened out from further consideration because the implementation of the policies is likely to protect rather than adversely affect European sites and not undermine their conservation objectives.
E	Policies or proposals that steer change in such a way as to protect European sites from adverse effects whose qualifying features may otherwise be affected by change can be screened out from further consideration.
F	Policies or proposals that cannot lead to development or any other change (e.g. design principles, layout or materials) can be screened out from further consideration.
G	Policies or proposals that could not have any conceivable adverse effect on a site because there is no causal link between them and the qualifying features of a European site. Alternatively there may be policies or proposals that would only have positive effects or would not otherwise undermine the conservation objectives for the site can be screened out from further consideration.
Н	Policies or proposals the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination) of the European site(s) can be screened out from further consideration.
I	Policies or proposals with a likely significant effect on a European site alone need to be taken further in the HRA process (screened in).



Category	Description
J	Policies or proposals not likely to have a significant effect alone – These aspects of a plan would have some effect on a European site's conservation objectives but the effect is not likely to be significant, so they must be checked for in-combination effects (see K and L below) (screened in)
К	Policies or proposal not likely to have a significant effect alone or in combination should be screened out from further consideration
L	Policies or proposals likely to have a significant effect in combination need to be taken further in the HRA process (screened in)

Definition of likely significant effects

2.1.7 A critical part of the HRA screening process is determining whether or not the projects or plans are likely to have a significant effect on European Sites and, therefore, if they will require an Appropriate Assessment (Stage 2 of the HRA process). Judgements regarding significance should be made in relation to the qualifying interests for which the site is of European importance and also its conservation objectives. In this context, 'likely' means a risk or possibility of effects occurring that cannot be discounted on the basis of objective information. 'Significant' effects are those that would undermine the conservation objectives for the qualifying features potentially affected, either alone or in combination with other plans or projects.

In-combination effects

- 2.1.8 It is necessary for the HRA to consider not only the proposals that may lead to significant impacts upon European sites on their own, but those that may have a significant impact in combination with other plans and projects. In considering the HRA of the Strategy therefore, careful consideration was given to the potential in-combination effects of the individual policies within the Strategy as well of the Strategy in combination with other plans and projects. Incombination effects are considered for those policies of the Strategy which could potentially have some effect on a European site but where these are determined to be not significant on their own, in accordance with guidance given in the Habitats Regulations Assessment Handbook (DTA Publications Ltd, 2014).
- 2.1.9 As specified in the Preliminary Scoping Report, information and plans contained within the associated Strategic Environmental Assessment (SEA) for the Strategy for Birmingham will be used to provide information of policies and objectives of 'in-combination' plans which will be assessed to identify potential significant effects on European sites. Similarly, known major projects have been considered in terms of their cumulative potential impacts on European sites of potential sensitivity.
- 2.1.10 It should be noted that an in combination assessment is not required where it can be demonstrated that the Strategy will have no effect on a particular European site.

Mitigation Measures

2.1.11 In undertaking this Screening Assessment, consideration has been given to potential avoidance and mitigation measures which would serve to avoid adverse effects on the integrity of European Sites affected by the Strategy. However, only those measures that will be 'designed-in' to the Strategy and implemented at the project stage can be considered at this stage of the process.



3 Screening

3.1 Screening for European Sites

- 3.1.1 The European sites which should be taken into consideration when undertaking an HRA are dependent on the policies and activities proposed within the Strategy or project concerned as well as the likely zone of influence, as determined by the Competent Authority (in this case Birmigham City Council) in consultation with the statutory nature conservation bodies. The zone of influence has been defined above as being the wider landscape surrounding the Strategy area which is connected to it via reasonable impact pathways. Whilst the Strategy area lies within the urban envelope of Birmingham which does not in itself support any European sites, there is potential for indirect effects as a result of plan policies, particularly with regard to those European sites associated with water courses which are downstream of the LFRMS area. Hence the zone of influence of the Strategy is potentially wide, particularly with regard to aquatic and riparian habitats and the associated assemblages of species.
- 3.1.2 All European sites within 20 km of the Strategy area were considered during the Preliminary Scoping Assessment undertaken by Amec in September 2013 with regard to the potential for effects as a result of the Strategy. Further consideration was also given in the Preliminary Scoping Assessment to sites beyond this distance depending on the ecological sensitivity of the habitats and species for which they are designated. The Screening Assessment detailed in this report initially only considered those sites within 20 km of the Strategy since the Preliminary Scoping Assessment discounted the potential for significant adverse effects of the Strategy on all European sites beyond this area. However, consultation with Natural England confirmed they would like to see the Humber Estuary SAC/SPA/Ramsar, which has a potential source-pathway-receptor link (via the River Trent, which flows into the Humber Estuary), included in the revised Screening Report. This has now been included in this report, along with the Severn Estuary SAC/SPA/ Ramsar, which is also downstream of the Strategy area, in order to demonstrate that they can effectively be excluded from further consideration in the Screening process.
- 3.1.3 There are no European sites within the Strategy area itself and a total of five European sites within 20km of the Strategy area have been considered in this Screening Assessment, as listed in Table 2, and illustrated on Figure 1. The information relating to the qualifying features, conservation status and condition assessment of these relevant European sites have all been taken from the latest version of relevant documentation held on the JNCC and Natural England websites.
- 3.1.4 A further six additional 'downstream' sites, that could be potential receptors as a result of the implementation of the Strategy are listed in Table 3. These include the Humber Estuary, which is located approximately 170km downstream of the Strategy area, and the Severn Estuary which is located approximately 130km to the south-west. The River Trent, which flows into the Humber Estuary, flows through the Strategy area, and a small proportion of the Strategy area drains into the Severn catchment.



Figure 1: European sites within 20 km of the Strategy area.

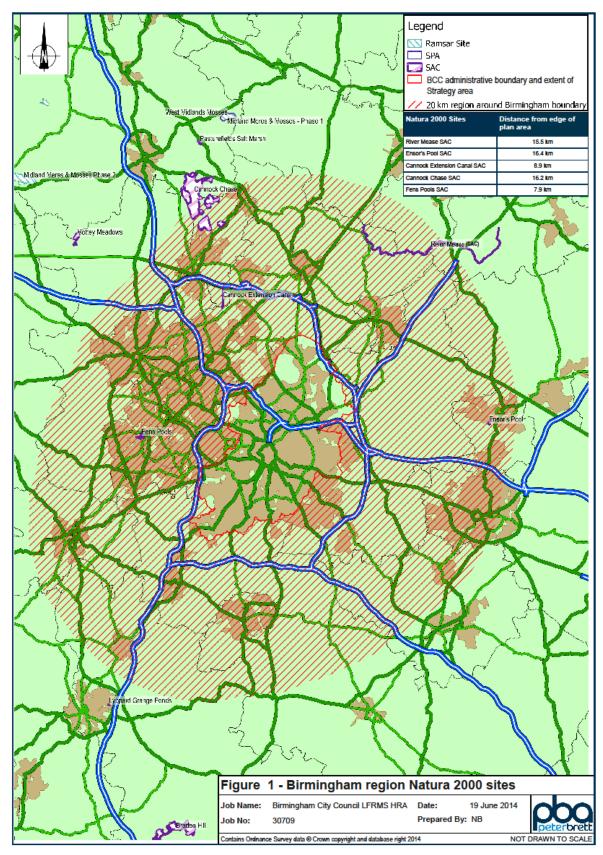


Table 2: European sites within 20 km of the Strategy area

European site / EU code	Distanc e from Plan area	Annex I & Annex II habitats and species that are primary reasons or qualifying features for designation	Site description and conservation objectives	Potential reasonable impact pathway from the Strategy
Cannock Chase SAC – UK0030107	16.2 km	Northern Atlantic wet heath with <i>Erica tetralix</i> is an Annex I habitat type present on Cannock Chase SAC which is both the primary reason and the qualifying feature for designation of the site.	British population of the hybrid bilberry <i>Vaccinium intermedium</i> , a plant of restricted occurrence. There are important populations of butterflies and beetles, as well as European nightjar <i>Caprimulgus europaeus</i> and five species of bats. Much of Cannock Chase falls within a popular and well-used Country Park. Visitor pressures include dog	The SAC is represented by terrestrial habitats and, given the significant distance between it and the Strategy area, there is considered to be no potential direct impact pathway between the two. Consequently, there will be no effect from implementation of the Strategy on this European site.



European site / EU code	Distanc e from Plan area	Annex I & Annex II habitats and species that are primary reasons or qualifying features for designation	Site description and conservation objectives	Potential reasonable impact pathway from the Strategy
			Chase overlies coal measures which have been deepmined. Mining fissures continue to appear across the site even though mining has ceased and this is thought to detrimentally affect site hydrology. Furthermore the underlying Sherwood Sandstone is a major aquifer with water abstracted for public and industrial uses and the effects of this on the wetland features of the Chase are not fully understood.	
Cannock Chase Extension Canal SAC – UK0012672	8.9 km	The floating water-plantain Luronium natans is an Annex Il species and its presence within Cannock Chase Extension Canal SAC is the primary reason for selection the site.	Cannock Extension Canal in central England is an example of anthropogenic, lowland habitat supporting floating water-plantain at the eastern limit of the Strategy's natural distribution in England. A very large population of the species occurs in the Canal, which has a diverse aquatic flora and rich dragonfly fauna, indicative of good water quality. The low volume of boat traffic on this terminal branch of the Wyrley and Essington Canal has allowed open-water plants, including floating water-plantain, to flourish, while depressing the growth of emergent species. The population of floating water-plantain in this cul-de-sac canal is dependent upon a balanced level of boat traffic. If the canal is not used, the abundant growth of other aquatic macrophytes may shade-out the floating water-plantain unless routinely controlled by cutting. An increase in recreational activity would be to the detriment of floating water-plantain. Existing discharges of surface water run-off, principally from roads, cause some reduction in water quality.	Cannock Chase Extension Canal SAC is located within a separate catchment from the Strategy area and the two are only indirectly linked via the canal network. The Strategy does not define the potential effects of its implementation on the canal system but, as previously stated in the Preliminary Scoping Report, "it is clear that any effects on the canal system in Birmingham will be fully attenuated before any water (etc.) derived from the BCC area reaches the site". Consequently, there will be no effect from implementation of the Strategy on this European site.



European site / EU code	site / EU Plan primary reasons or Site description and conservation objectives		Potential reasonable impact pathway from the Strategy	
Ensor's Pool SAC – UK0012646	16.4 km	The white-clawed crayfish Austropotamobius pallipes is an Annex II species and its presence within Ensor's Pool SAC is the primary reason for selection of the site.	This lowland site in central England represents white-clawed crayfish in standing water. This 1 ha marl pit holds a very large population, estimated at 50,000. Although crayfish plague outbreaks have occurred in the Midlands, this water body is isolated from river systems and is a good example of a 'refuge' site in an important part of the species' former range. The crayfish population has developed in a flooded brick-pit that has been abandoned for fifty years. The area was unmanaged and was used as <i>de facto</i> public open space. The crayfish would be vulnerable to pollution and introduction of non-native crayfish, through uncontrolled access. To address this, since 1995 the area has been leased by Nuneaton and Bedworth Borough Council and is managed as a Local Nature Reserve.	The site is represented by an isolated marl pit and there is no potential reasonable impact pathway between it and the Strategy. Consequently, there will be no effect from implementation of the Strategy on this European site.
Fens Pools SAC – UK0030150	SAC – 7.9 km within Fens Pools SAC		This site comprises three canal feeder reservoirs and a series of smaller pools. They overlie Etruria marls and coal measures of the Carboniferous period. The site shows evidence of past industrial activities and includes a wide range of habitats from open water, swamp, fen and inundation communities to unimproved neutral and acidic grassland and scrub. Great crested newt <i>Triturus cristatus</i> occur as part of an important amphibian assemblage. The great crested newt population at this site is dependent on the control of fish, maintenance of adequate water quality given an urban catchment, and the protection of surrounding terrestrial habitat from major ground disturbance. The vulnerability of the breeding ponds is being reduced through factors such as desiccation, human disturbance, fish introductions, pollution control and by expanding the number	The canal feeder reservoirs and pools which form part of the site are only connected to the Strategy area via the canal network. However, these are all upstream of the Strategy area and consequently there is no reasonable impact pathway between the site and the Strategy area. Consequently, there will be no effect from implementation of the Strategy on this European site



European site / EU code	Distanc e from Plan area	Annex I & Annex II habitats and species that are primary reasons or qualifying features for designation	Site description and conservation objectives	Potential reasonable impact pathway from the Strategy
			of ponds in the current cluster. This action will also help mitigate the population's relative isolation resulting from its urban setting. The post-industrial origins of much of the site's surface material means that land contamination could be a possible future issue.	
River Mease SAC – UK0030258	15.5 km	The Annex 2 species present on site which represent the primary reason selection are the spined loach Cobitis taenia and bullhead Cottus gobio. The Annex I habitats present on site which represent the qualifying features for selection are the water courses of plain to montane levels which support Ranunculion fluitantis and Callitricho-Batrachion vegetation. Annex II species which are present on site and which represent qualifying features are otter Lutra lutra and white clawed crayfish Austropotamobius pallipes.	The River Mease is a small tributary of the River Trent and has retained a reasonable degree of channel diversity compared to other similar rivers containing spined loach populations. It has extensive beds of submerged plants along much of its length which, together with its relatively sandy sediments (as opposed to cohesive mud) provides good habitat opportunities for bullhead. Bed sediments are generally not as coarse as other sites selected for the species, reflecting the nature of many rivers in this geographical area, but are suitable in discrete sections due to the rivers retained sinuosity. The patchy cover from submerged macrophytes is also important for the bullhead populations. The River Mease is an unusually semi-natural system in a largely rural landscape, dominated by intensive agriculture. Water quality and quantity are vital to the European interests, whilst competition for water resources is high. Diffuse pollution and excessive sedimentation are catchment-wide issues which have the potential to affect the site.	The River Mease is a tributary of the River Tame which itself flows through the area of implementation of the Strategy. The Rivers Mease and Tame diverge near Alrewas, 15.5 km away from the Strategy area. This location effectively represents that start of the River Mease SAC which is therefore located within the zone of influence of the Strategy and hence there is a potential impact pathway linking it to the Strategy. Consequently, the potential for the Strategy to impact upon the River Mease SAC is considered further in section 3.3, below.



Table 3: European sites beyond 20 km of the Strategy area (downstream sites)

European site / EU code	Distance from Plan area	Interest features of European Site	Potential reasonable impact pathway from the Strategy
Humber Estuary SAC UK0030170		Grey seal <i>Halichoerus grypus</i> ; Sandbanks which are slightly covered by sea water all the time; Coastal lagoons*; Salicornia and other annuals colonising mud and sand; Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>); Embryonic shifting dunes; Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes"); Fixed dunes with herbaceous vegetation ("grey dunes")*; Dunes with <i>Hippophae rhamnoides</i> ; Sea lamprey <i>Petromyzon marinus</i> ; River Lamprey <i>Lampetra fluviatilis</i> ; Estuaries; Mudflats and sandflats not covered by seawater at low tide.	The Humber Estuary sites are at least 170km downstream of the Strategy area (via the River Trent). Given the considerable distance involved, and that the River Trent flows through several conurbations including
Humber Estuary SPA UK9006111	Approx. 170km	Avocet Recurvirostra avosetta(B)(W); Bar-tailed godwit Limosa lapponica W; Bittern Botaurus stellaris(B)W; Black-tailed godwit Limosa limosa islandica(P)(W); Curlew Numenius arquata(W); Dark-bellied brent goose Branta bernicla bernicla(W); Dunlin (ssp. alpina) Calidris alpina alpina(P)W; Golden plover Pluvialis apricaria W; Goldeneye Bucephala clangula(W); Greenshank Tringa nebularia(P); Grey plover Pluvialis squatarola(P)(W); Hen harrier Circus cyaneus W; Knot Calidris canutus(P)W; Lapwing Vanellus vanellus(W); Little tern Sterna albifrons B; Mallard Anas platyrhynchos(W); Marsh harrier Circus aeruginosus B; Oystercatcher Haematopus ostralegus(W); Pochard Aythya ferina(W); Redshank Tringa totanus PW; Ringed plover Charadrius hiaticula(P)(W); Ruff Philomachus pugnax(P); Sanderling Calidris alba P(W); Scaup Aythya marila(W); Shelduck Tadorna tadorna W; Teal Anas crecca(W); Turnstone Arenaria interpres(W); Waterfowl assemblage; Whimbrel Numenius phaeopus(P); Wigeon Anas penelope(W).	Nottingham, Mansfield and Scunthorpe, any hydrological or water quality effects which may have indirect impacts on the interest features of the Humber Estuary, could not reasonably be attributed to the implementation of the Strategy. There is no reasonable impact pathway between these sites and the Strategy area.
Humber Estuary Ramsar		Criterion 1: Habitats Directive Annex I features; Criterion 3: Breeding grey seals; Criterion 5: 153934 waterfowl (5 year peak mean); Criterion 6: species/populations occurring at levels of international importance; Criterion 8: Migration route for sea and river lamprey.	Consequently, there will be no effect from implementation of the Strategy on these European sites.



European site / EU code	Distance from Plan area	Interest features of European Site	Potential reasonable impact pathway from the Strategy
Severn Estuary/ Môr Hafren SAC UK0013030		Sandbanks which are slightly covered by sea water all the time; Estuaries; Mudflats and sandflats not covered by seawater at low tide; Reefs; Twaite shad <i>Alosa fallax</i> ; Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>); Sea lamprey <i>Petromyzon marinus</i> ; River Lamprey <i>Lampetra fluviatilis</i> .	The Severn Estuary sites are approximately130km downstream of the Strategy area Given the distances involved, and that only a very
Severn Estuary SPA UK9015022	A	Bewick's swan <i>Cygnus columbianus bewickii</i> W; Curlew <i>Numenius arquata</i> W+; Dunlin (ssp. <i>alpina</i>) <i>Calidris alpina alpina</i> W; Gadwall <i>Anas strepera</i> (W); Pintail <i>Anas acuta</i> W+; Redshank <i>Tringa totanus</i> W; Ringed plover <i>Charadrius hiaticula</i> P+; Shelduck <i>Tadorna tadorna</i> W; Waterfowl assemblage; White-fronted goose <i>Anser albifrons albifrons</i> (W).	small proportion of the Strategyarea drains to the Severn catchment. Any hydrological or water quality effects which may have indirect impacts on the interest features
	Approx 130km		of the Severn Estuary, could not reasonably be attributed to the implementation of the Strategy.
Severn Estuary Ramsar		Criterion 1: Habitats Directive Annex I features; Criterion 3: Unusual estuarine communities with reduced diversity and high productivity; Criterion 4: Important for migratory species including fish and birds; Criterion 5: 70919 waterfowl (5 year peak mean 1998/99-2002/2003); Criterion 6: species/populations occurring at levels of international importance; Criterion 8: Diverse fish populations.	There is no reasonable impact pathway between these sites and the Strategy area. Consequently, there will be no effect from implementation of the Strategy on these European sites.

Key:

В	Breeding	Р	Passage	+	Added in SPA review
W	Wintering	(X)	Removed in SPA review	*	Priority Feature



3.2 Screening of the Strategy

- 3.2.1 The Preliminary Scoping Assessment undertaken in September 2013 determined that the majority of the European sites within the zone of influence would be unaffected by the delivery of the Strategy, due to either the site or interest features not being sensitive to the likely outcomes of the Strategy (e.g. sites without water-resource dependent interest features or mobile species); and/ or the site or interest feature not being exposed to the likely outcomes of the Strategy, due to the absence of reasonable impact pathways (Amec, 2013). This includes the European Sites both within and beyond 20km of the Strategy area. Given that there are no causal connections or links between the Strategy and the European site's qualifying features, there cannot be an effect, and consequently these sites have been screened out of the detailed assessment.
- 3.2.2 The exception to this is considered to be the River Mease SAC, which enters the River Tame, downstream of Birmingham. Whilst the river itself is unlikely to be directly affected by the implementation or operation of the Strategy, the potential exists for effects on the mobile species of the site (white-clawed crayfish, spined loach, bullhead and otter) if present on the River Tame near the SAC. The species and the potential effects that implementation of the Strategy may have on them are considered below in Table 4.



Table 4: Assessment of potential effects on the reasons for selection of the River Mease SAC.

Qualifying feature or reason for selection of the River Mease SAC	Relevant records of species and habitats representing the qualifying features or reasons for selection of the River Mease SAC	Assessment of potential effects associated with implementation of the Strategy
Bullhead: a primary reason for site selection.	Records of bullhead exist from various locations in close proximity to the confluence of the Rivers Tame and Mease, including near Elford and Comberford, as well as further upstream at Tamworth. The species has also been recorded further toward the area of implementation of the Strategy and from within the floodplain at Park Hall Nature Reserve, which lies within tea and which the River Tame flows through.	There is potential for bullhead to be adversely affected by temporary increases in sediment loads which may be generated by, for example, deculverting works or the naturalisation of water course channels, which could result in a reduction of the number of suitable refuges available for them. However, Policy 6 of the Strategy stipulates that the City Council will not consent works on ordinary watercourses that increase flood risk or have a detrimental effect on the environment. Furthermore, it is considered extremely unlikely that any flood risk management policies contained within the Strategy would have a significant adverse effect on the integrity of the bullhead population within the River Mease SAC, given the considerable distance downstream of the Strategy area. Consequently, it is considered that implementation of the Strategy will not adversely affect this species which represents a primary reason for selection of the River Mease SAC.
Spined loach: a primary reason for site selection.	Records of spined loach exist from various locations in close proximity to the confluence of the Rivers Tame and Mease, including near Elford and Comberford, as well as further upstream at Tamworth, toward the area of implementation of the Strategy for Birmingham.	There is the potential for spined loach to be adversely affected by temporary increases in sediment loads or changes of flow rates, which may result from implementation of objectives set out in the Strategy, by reducing the suitability of their spawning grounds and sandy habitats required for juvenile development. However, as detailed above, Policy 6 of the Strategy stipulates



Qualifying feature or reason for selection of the River Mease SAC	Relevant records of species and habitats representing the qualifying features or reasons for selection of the River Mease SAC	Assessment of potential effects associated with implementation of the Strategy
		that the City Council will not have a detrimental effect on the environment and it is considered extremely unlikely that the Strategy would have a significant adverse effect on the integrity of the spined loach population within the River Mease SAC. Consequently, it is considered that implementation of the Strategy will not adversely affect this species which represents a primary reason for selection of the River Mease SAC.
Whited clawed crayfish: a qualifying feature of the site.	This species has been recorded at various locations upstream of the River Mease SAC, including along the River Tame near Kingsbury, Alrewas and Drayton Basset.	The potential exists for crayfish to be affected by temporary increases in sediment loads or changes of flow rates which may result from implementation of objectives set out in the Strategy, or by a loss in the availability of suitable refuges. However, as detailed above, Policy 6 of the Strategy stipulates that the City Council will not have a detrimental effect on the environment and, given the distances involved, it is considered extremely unlikely that any flood risk management policies contained within the Strategy would have a significant adverse effect on the integrity of the whited clawed crayfish population of the River Mease SAC.
Otter: a qualifying feature of the site.	Otter have been recorded at various locations upstream of the River Mease SAC including long the River Tame at Kingsbury, Alrewas and Drayton Basset.	The otter is a highly dispersive species with home ranges of males often exceeding 35 km of freshwater water courses. Individuals are capable of covering significant distances to find appropriate foraging locations and places to shelter, 'holt' and raise young. The potential for any significant impacts on the otter population as a result of any



Qualifying feature or reason for selection of the River Mease SAC	Relevant records of species and habitats representing the qualifying features or reasons for selection of the River Mease SAC	Assessment of potential effects associated with implementation of the Strategy
		activities which are likely to be undertaken to meet the overarching objectives of addressing flood risk management, is considered unlikely. Consequently, it is considered that implementation of the Strategy will not result in a significant adverse effect on the otter population, either locally, in the context of the Strategy area, or in the context of the River Mease SAC.
Water courses of plain to montane levels which support <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation: qualifying features of the site.	Within the SAC itself.	Any activities with the potential to adversely affect the water course habitats of the River Mease SAC which support <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation would not be supported by the City Council, in line with Policy 6 of the Strategy. Consequently, potential impacts on these qualifying habitats have been screened out from further assessment.



- 3.2.3 The assessment detailed above determines that potential adverse effects resulting from implementation of the Strategy on the River Mease SAC can be screened out from further assessment. There will be no significant adverse effects on any of the qualifying species for which the SAC is designated, principally because Policy 6 of the Strategy will prevent the City Council consenting any works that will have a detrimental effect on the environment, and secondly because any reasonable flood risk management activities undertaken in the Strategy area would be extremely unlikely to adversely affect the integrity of populations of these species which are located 15.5 km downstream within the River Mease SAC. Similarly, impacts on any Rannunculus beds within the SAC are unlikely due to the dispersive effects of the distances involved, combined with the implementation of Policy 6 of the Strategy.
- 3.2.4 In view of this assessment of likely impacts on the qualifying features and reasons for selection of the River Mease SAC, a table detailing the screening of policies within the Strategy with regard to all European sites within the zone of influence is provided below (Table 5). This has been undertaken with reference to the Screening Categories detailed in Table 1 of this report, and provides the justification for the 'screening out' of each of the policies within the Strategy from further assessment, as part of the HRA process.



Table 5: Screening of policies within the Strategy

LFRMS Reference	Subject	Nature	Screening Category	Scope in/out
Policy 1	Management governance	The City Council will operate a flood risk management governance structure to support a partnership approach to managing flood risk.	А	Out
Policy 2	Analysis of flood risk data	The City Council will use the most up to date data on flood risk to provide an understanding of flood risk in Birmingham.	А	Out
Policy 3	Flood risk prediction	The City Council will use data, when available, to inform properties at predicted risk of severe flooding by the most appropriate mechanism.	А	Out
Policy 4	Database of flood risk properties	The City Council will maintain a database of properties that have returned flood survey questionnaires and will track the actions taken by flood risk management partners in response to flooding.	А	Out
Policy 5	Register of significant effects	The City Council will maintain a register of significant assets which it believes has an effect on flood risk.	A	Out
Policy 6	Avoidance of detrimental effects	The City Council will not consent works on ordinary watercourse that increase flood risk or have a detrimental effect on the environment.	D	Out
Policy 7	Watercourse maintenance works	The City Council will undertake maintenance works on watercourses and culverts for which it has responsibility, for the purpose of flood risk management where it is essential in the general public interest.	К	Out
Policy 8	Watercourse blockages	The City Council will use its powers under the Land Drainage Act to remove blockages to watercourses that present a flood risk.	К	Out
Policy 9	Staff skill sets	The City Council will ensure that there is appropriately qualified and experienced staff available to	A	Out



LFRMS Reference	Subject	Nature	Screening Category	Scope in/out
		respond to flooding emergencies 24 hours a day every day.		
Policy 10	Deployment of resources	The City Council will not deploy resources on the sole basis of weather forecasting, an escalating series of triggers will be sued to identify when resources should be deployed.	A	Out
Policy 11	Provision of sandbags	The City Council will provide sandbags in bulk deliveries to approved Flood Action Groups during a flooding event, sandbags will not generally be provided to individual properties	G	Out
Policy 12	Flood Action Groups	The City Council will support the establishment and maintenance of Flood Action Groups and other relevant community groups with guidance and advice in setting up flood plans and liaising with emergency services.	A	Out
Policy 13	Flood report records.	The City Council will record all reports of flooding that it receives and will investigate those incidents that are considered significant.	A	Out
Policy 14	Prioritising flood risk management schemes	The City Council will establish and follow an assessment framework for prioritising flood risk management schemes.	A	Out
Policy 15	Funding management improvements	The City Council will seek funding opportunities, both public and private, to deliver flood risk management improvements.	A	Out
Policy 16	Maintaining management skills	The City Council will seek to maintain and where possible increase its flood risk management skills and capacity.	A	Out
Policy 17	Management and development policies	The City Council will establish and imbed flood risk management into its development policies to manage flood risk to new and existing communities.	A	Out
Policy 18	SuDS policy	The City Council will develop a SuDS Policy	E	Out



LFRMS Reference	Subject	Nature	Screening Category	Scope in/out
Policy 19	De-culverting & naturalisation of watercourses	The City Council will not support the culverting of watercourses and will seek opportunities for deculverting and naturalisation of watercourses.	E	Out
Policy 20	Providing environmental benefits	The City Council will ensure that where possible flood risk management actions deliver wider environmental benefits.	D	Out



3.3 In-combination effects

3.3.1 In light of the assessment detailed above, is it determined that there can be no in-combination effects on any European sites resulting from implementation of the Strategy alongside other schemes or developments. It has been determined that the policies within the Strategy will, in isolation, have no impacts on European sites. They will therefore have no contributory effects additional to those of any other schemes or developments within the zone of influence. The consideration of other known major projects in the area is therefore considered unnecessary to confirm the absence of significant in-combination effects.



4 Conclusion

- 4.1.1 The Screening assessment detailed in this report has determined that policies contained within the Local Flood Risk Management Strategy for Birmingham will have no significant adverse effects on any European sites, either alone, or in combination with the effects of other schemes and developments. Having given due consideration to all aspects of the Strategy, including the nature, scale, timing, duration and location of all Policies within it, it is concluded that there will be no significant adverse effects on the integrity of any European sites within the zone of influence as a result of implementation of the Strategy. The Strategy has therefore been eliminated from further assessment in the HRA process; a record of the conclusion of this decision is provided in Appendix A. This conclusion has been discussed and agreed with Natural England; see Appendix B.
- 4.1.2 The existing policies contained within the Strategy are expected to have beneficial effects on ecology and wildlife both within the area of implementation as well as downstream. They include policies supporting and promoting the development of a Sustainable urban Drainage System (SuDS), the de-culverting and naturalisation of watercourses and the exploration of opportunities to enhance biodiversity through habitat creation as part of any flood alleviation scheme.



References

Amec Environment & Infrastructure UK Limited, 2013. Habitat Regulations Assessment Screening of the Local Flood Risk Management Strategy for Birmingham.

DTA Publications Ltd (2014) The Habitats Regulations Assessment Handbook. DTA Publications Ltd. http://www.dtapublications.co.uk/



Appendix A Screening record for an eliminated plan

Record of a plan eliminated from assessment under the Habitats Regulations 2010 (as amended 2012) because it could not have any conceivable effect on a European Site.

The Outline Local Flood Risk Management Strategy for Birmingham was considered in light of the assessment requirements of regulation 61 of the Conservation of Habitats and Species Regulations 2010 by Birmingham City Council which is the competent authority responsible for adopting the Strategy and any assessment of it by the Regulations.

Having considered all aspects of the Strategy including the nature, scale, timing, duration and location of all proposals within it, it was concluded that it is eliminated from further assessment because it could not have any conceivable effect on a European site. The reason for this conclusion is outlined below:

All of the European sites within the zone of influence would be unaffected by the delivery of the Strategy, due to either the site or interest features not being sensitive to the likely outcomes of the Strategy (e.g. sites without water-resource dependent interest features or mobile species); and/ or the site or interest feature not being exposed to the likely outcomes of the Strategy. Policy 6 of the Strategy will prevent the City Council consenting any works that will have a detrimental effect on the environment.

Further information on the Screening Assessment is provided in Section 3.3 and Table 5 of this report.

Further supplementary information is not required.

Dated: 17th of June, 2014

Copy sent to Natural England on: 22nd of July, 2104 and revised report dated 8th September 2014, issued to Natural England on the 17th September 2014. Natural England confirmed on the 19th November 2014 their agreement with the conclusions of this Screening Assessment (see Appendix B).



Appendix B Record of consultation with Natural England

Elaine Richmond

From: Elaine Richmond

Sent: 19 November 2014 10:00

To: 'Grady.McLean@naturalengland.org.uk'

Subject: RE: 2014-08-01, 127238, Birmingham Flood Risk Management Plan_HRA Screening

Report

Grady,

This note is to provide a formal record of the telephone conversation that we had this morning, to discuss the HRA Screening Report for the Outline Local Flood Risk Management Strategy for Birmingham.

During our call, you confirmed the following:

- You are happy with the changes that PBA have made to the revised report to reflect your comments; and
- Natural England agrees with the findings of our assessment, and that the Outline Local Flood Risk
 Management Strategy for Birmingham can be eliminated from further HRA assessment, as it could not have any conceivable effect on a European Site.

I trust you agree that this is an accurate record of our telephone conversation.

Many thanks for your time.

Kind regards

Elaine

Elaine Richmond BSc MSc MCIEEM CEnv

Senior Associate

For and on behalf of Peter Brett Associates LLP e erichmond@peterbrett.com
www.peterbrett.com
m. 07884 650689







From: Elaine Richmond

Sent: 18 November 2014 10:22

To: 'Grady.McLean@naturalengland.org.uk'

Subject: FW: 2014-08-01, 127238, Birmingham Flood Risk Management Plan_HRA Screening Report

Good morning, Grady.

Further to my email last month, I would be most grateful for a response in relation to the revised HRA Screening Report for the Outline Local Flood Risk Management Strategy for Birmingham.

We have made relatively straight forward changes to the report to address your comments (see below), and trust that you agree that the Outline Local Flood Risk Management Strategy for Birmingham can be eliminated from further HRA assessment, as it could not have any conceivable effect on a European Site.

I look forward to hearing from you.

Kind regards

Elaine

From: Elaine Richmond Sent: 21 October 2014 14:34

To: 'Grady.McLean@naturalengland.org.uk'

Subject: FW: 2014-08-01, 127238, Birmingham Flood Risk Management Plan_HRA Screening Report

Good afternoon Grady,

Further to my e-mail below, I wondered if you have had the opportunity to review the revised HRA Screening Report for the Outline Local Flood Risk Management Strategy for Birmingham.

I would be grateful if you could confirm Natural England's agreement (or otherwise) to our conclusion that the Outline Local Flood Risk Management Strategy for Birmingham can be eliminated from further HRA assessment, as it could not have any conceivable effect on a European Site.

Many thanks

Elaine

Elaine Richmond BSc MSc MCIEEM CEnv

Senior Associate

For and on behalf of Peter Brett Associates LLP e erichmond@peterbrett.com
w www.peterbrett.com
m. 07884 650689





From: Elaine Richmond

Sent: 17 September 2014 11:29

To: 'Grady.McLean@naturalengland.org.uk'

Subject: RE: 2014-08-01, 127238, Birmingham Flood Risk Management Plan_HRA Screening Report

Good morning Grady,

Many thanks for your email and Natural England's comments on the HRA Screening Report that Peter Brett Associates have produced on behalf of Birmingham City Council associated with their Outline Local Flood Risk Management Strategy.

As you may have seen in response to your e-mail sent on the 13th August, my colleague Oliver Barnett has recently left PBA. In his absence, I have reviewed your letter and have revised the HRA Screening Report accordingly to take into account NE's comments.

For ease, I have included new text in the attached document as red, so you can clearly see where amendments have been made. You will note that we have now included the Humber Estuary SAC/SPA/Ramsar, as well as the Severn Estuary SAC/SPA/ Ramsar (both downstream of the Strategy area) in the Screening of European sites (see Section 3 and Table 3). We have concluded that given the considerable distances involved, any hydrological or water quality effects which may have indirect impacts on the interest features of the Humber Estuary or Severn Estuary European sites, could not reasonably be attributed to the implementation of the Strategy. Given that there is no reasonable impact pathway between these sites and the Strategy area, they have been excluded from further consideration in the Screening Report – which is the outcome you alluded to in your letter. I therefore trust that the amended report has dealt with your comments in an satisfactory manner.

Assuming this is the case, please can you confirm your agreement (or otherwise) to the findings of the assessment (as outlined in Appendix A), which concludes that the Outline Local Flood Risk Management Strategy for Birmingham can be eliminated from further HRA assessment, as it could not have any conceivable effect on a European Site.

Many thanks and kind regards

Flaine

Elaine Richmond BSc MSc MCIEEM CEnv

Senior Associate

For and on behalf of Peter Brett Associates LLP e erichmond@peterbrett.com
www.peterbrett.com
m. 07884 650689





From: McLean, Grady (NE) [mailto:Grady.McLean@naturalengland.org.uk]

Sent: 13 August 2014 14:22

To: Oliver Barnett

Subject: RE: 2014-08-01, 127238, Birmingham Flood Risk Management Plan HRA Screening Report

Good afternoon

Please find attached Natural England's comments on your HRA screening report.

Regards

Grady McLean
Lead Adviser - Sustainable Development
North Mercia Area
Natural England
Parkside Court,
Hall Park Way