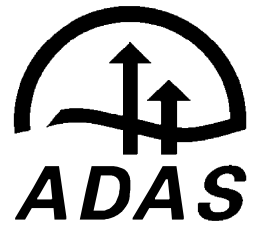


Appendix 2A

ADAS Report: Ecological Justification Of Western &
Northern Routes As Alternatives For The Completion
Of The Heysham To M6 Link

**HEYSHAM TO M6 LINK
(WESTERN & NORTHERN ROUTE)**



**ENVIRONMENTAL IMPACT
ASSESSMENT**

**Ecological Justification of
Western & Northern Routes as
Alternatives for the Completion
of the Heysham to M6 Link
Report**

| | |
|-----------------------------------|---|
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1 Executive Summary

1.1 Ecological Issues on Western & Northern Routes

1.1.1 Protected Areas

Construction of the Western Route in the vicinity of the proposed Lune bridge presents the possibility of impacts on the integrity of the European Protected Area designated as the Morecambe Bay candidate Special Area of Conservation (cSAC) and Special Protection Area (SPA). No impacts are predicted to result from the Northern Route on these protected areas.

Proposals involving cSACs/SPAs are likely to be high profile and a high confidence level that no significant impact will arise is required if impacts are to be discounted as insignificant or trivial. It is not certain that impacts of the Western Route would be insignificant. In the case of uncertainty of impacts, application of the precautionary principle is likely to be deemed necessary by the European Commission.

Projects likely to affect European Protected Areas should not proceed where the integrity of the site would be adversely affected, unless there are no satisfactory alternatives and the plan is essential for imperative reasons of overriding public interest. In addition, it is important to note that impacts on areas outside the boundaries of a cSAC/SPA may be considered to affect the integrity of the cSAC/SPA itself. Such impacts are considered possible in the case of the Western Route.

English Nature has expressed concern regarding the future indirect impacts likely to result from increased recreational activities encouraged within the cSAC/SPA as a result of the presence of the Western Route. Increased recreational pressure is anticipated to result from significant increases in the number of people aware of the recreational opportunities presented by the estuary and the moorings at the Golden Ball Inn, arising from the overview of the estuary by people travelling on the Western Route.

The possibility that the Western Route may impact the integrity of the Lune Estuary European Protected Area necessitates consideration of alternatives to the Western Route. An alternative exists in the Northern Route. It is concluded that the ecological justification for selecting the Western Route may be undermined as a result.

The potential impacts of the Western Route on the Lune Estuary Wetland of International Importance (Ramsar site) and Lune Estuary SSSI reflect those described for the cSAC/SPA. No impacts are predicted on these areas from the Northern Route.

1.1.2 Protected Species

The Habitats Directive requires the UK to implement a strict system of protection for certain species (Annex IV) and to achieve favourable conservation status for others in their natural range (Annex II). Art. 3 of the Habitats Directive requires the maintenance or restoration to favourable conservation status of Annex II(a) species. Art. 12 requires strict protection

measures for Annex IV(a) species. Art. 10 to encourage the management of landscape features of major importance to wild fauna and flora.

After mitigation, the Western Route is predicted to result in potential negative impacts on two species listed in Annex II(a) and Annex IV(a), namely Bats and Great Crested Newts. Great Crested Newts were not found on the Northern Route and limited Bat activity and the absence of Bat roosts affected by the scheme would limit impacts on Bats on the Northern Route.

The measures required to mitigate the impacts of the Western Route on Bats and Great Crested Newts would require the issue of licences by Defra. Defra licenses can only be issued for capture or disturbance of European Protected Species or disturbance or damage to their breeding or resting places if Defra is satisfied that there is no satisfactory alternative and the action will not be detrimental to the maintenance of the population of the species at favourable conservation status in their natural range. Given the existence of the alternative Northern Route which would not require licensed mitigation measures, it is considered unlikely that licences for such work on the Western Route would be justified under the Directive's requirements.

1.1.3 Other Biodiversity Impacts

Other biodiversity impacts of the Western Route are predicted to be significantly greater than those of the Northern Route in terms of nationally protected species, protected hedgerows, National and Local Biodiversity Action Plan species and habitats and Biological Heritage Sites. The greater diversity and number of species associated with the habitats in the vicinity of the Western Route, combined with the Western Route's significantly larger footprint (149 hectares on the Western route compared to 72 hectares on the Northern Route), would involve approximately twice the loss of foraging areas, greater habitat fragmentation and loss of mature habitats, including woods, veteran trees and hedgerows. These factors would result in impacts on a larger number and diversity of species dependent on these habitats.

Higher cost would be associated with mitigation required on the Western Route, due to the more extensive nature of the impacts on a larger area and the need to reconcile the different mitigation measures required for different species. Lower confidence levels of success are associated with some of the mitigation measures required. Of the two routes the Western Route is not the recommended option in ecological terms.

1.1.4 Cumulative & Indirect Impacts

The cumulative and indirect impacts of the Western Route on biodiversity resources are predicted to be greater than those associated with the Northern Route. The design of the Western Route incorporates provision for dualling of the carriageway within 15 to 30 years, The construction process involved in dualling the carriageway and the subsequent increased volume of traffic is predicted to have additional impacts on biodiversity in the vicinity of the Western Route, including potential impacts on the area identified by Lancaster City Council as potential cSAC/SPA compensation land. Indirect impacts of the Western Route are anticipated to be greater than those on the Northern Route, as a result of the greater development pressure the route is likely to encourage along its length.

Consultation with English Nature resulted in concern being expressed regarding the potential future indirect impacts likely to result from increased recreational activities within the cSAC/SPA, should the Western Route be constructed. The overview of the estuary provided by the route would bring the attention of large numbers of people to the recreational opportunities presented by the estuary and the moorings at the Golden Ball Inn. Increased recreational pressure is anticipated in terms of water sports, including water-skiing, jetskiing, and increased disturbance on land, which is anticipated to have a damaging effect on the cSAC/SPA.

1.1.5 Conclusion

The report concludes that the Western Route would present difficulties in terms of justifying it in EU and UK nature conservation policy and law at a public inquiry, as a result of its greater potential direct, indirect and cumulative impacts on biodiversity, in contrast to the Northern Route.

Selection of the Western Route may not accord the UK's obligations under EU law, given the potential impacts on Annex II(a) and IV(a) European Protected Species (Bats and Great Crested Newts) and the risk of potential impacts on the cSAC/SPA and the Lune Estuary Ramsar site and SSSI. The availability of a satisfactory alternative route, which is not predicted to result in significant impacts on European Protected Species or habitats, suggests that in ecological terms the Western Route would not be an appropriate option to select. It is open to the European Commission to bring legal proceedings against the UK government if it is decided that a breach of Habitat Directive obligations may have occurred.

2 Introduction

2.1 Report Objectives & Scope

Lancashire County Council requested ADAS Consulting Ltd to prepare a report to identify biodiversity issues associated with two route options which are being considered to complete the link between Heysham and the M6 in Lancashire. The purpose of the report is to compare and contrast the ecological issues associated with each route and to identify issues that may affect justification for the selection of either route on ecological grounds, and particularly in the context of a public inquiry.

This report is based on the information available at 1 July 2004. It is based mainly on work that ADAS has undertaken on the potential ecological impacts of the two routes, referred to subsequently as the Western and Northern Routes. Additional information from records supplied by other agencies also informed the report. This report is based on ecological information available and consultations with external agencies undertaken as at 29 January 2004.

The issues raised by the two route options are based on our understanding of current policy, legal provisions and case law. EU and UK legislation is subject to change and such changes may have implications for the selection of the most appropriate route. A number of relevant

legislative changes are currently going through consultation and are commented in this report.

Actions taken by the European Commission and decisions in the European Court of Justice, UK courts and public inquiries have altered, and may in future alter, the interpretation of UK and European nature conservation legislation. These may have implications for the route selection in future.

The land use planning system has a major role in determining the likely acceptability of the two route options. While reference is made to the land use planning system where appropriate, for example to Planning Policy Guidance (PPGs), a full analysis of the land use planning implications for the route selection is beyond the scope of this report.

3 Biodiversity Conservation Legislation & Designations

3.1 Biodiversity Obligations & Designations

A substantial body of international, EU and UK policy legislation now exists which has the purpose of maintaining and restoring ecological systems and wildlife and to protect them from damaging activity. The legislation is supported by a growing body of case law from the European Court of Justice, the UK courts and public inquiry decisions.

A hierarchy of protection exists concerning habitats and species, from international legally binding obligations to local, non-statutory site designations. The main focus of this report is consideration of the implications of the legally binding obligations in relation to the current state of knowledge concerning the habitats and species that might be affected by the route options. Reference is also made to non-statutory biodiversity designations (Biological Heritage Sites) which may form part of the evidence considered at a public inquiry.

Analysis of the information available to date indicates that the main legislation and designations relevant to the route options are:

- European Protected Areas: candidate Special Area of Conservation (cSAC)¹ and Special Protection Area (SPA)²
- European Protected Species³
- Ramsar site⁴
- Lune Estuary Site of Special Scientific Interest (SSSI)⁵: habitats protected under national legislation
- National & local biodiversity conservation policies implemented via National and Local Biodiversity Action Plans and Recovery Plans for Habitats & Species⁶

¹ Designated under the Habitats Directive 92/43/EEC and Birds Directive 79/409/EEC

² Designated under the Birds Directive 79/409/EEC

³ Listed in the Habitats Directive 92/43/EEC

⁴ Designated under the Convention on Wetlands of International Importance 1971

⁵ Designated under Wildlife & Countryside Act 1981; protection enhanced under Countryside & Rights of Way Act 2000

⁶ Implementing UK obligations under the Convention on Biological Diversity 1992

Particular attention is given to the obligations which arise under EU law, as a result of its predominance over UK law in the field of nature conservation and for which legal mechanisms exist to secure its implementation in the UK.

An important feature of EU law is that it requires member states to implement the underlying purpose of Directives. A considerable body of case law has confirmed that member states may not seek to avoid implementing the purpose of Directives by adopting narrow interpretations of Directive texts that would limit the achievement of the Directive's purpose. The UK is therefore obliged to identify and implement the purpose of EU legislation by adopting and enforcing appropriate implementing measures. Failure to do so can ultimately lead to proceedings against the UK government, its appearance before the European Court of Justice and the imposition of legal sanctions.

3.2 Legislation & Designations Relevant to Route Options

Table 1 below summarises the key biodiversity-related legislative provisions and designations identified as relevant to the Western and Northern Routes, based on information available at 1 July 2004. Only species which are protected by legal provisions are listed in the table. It is important to note that a wide range of other species are associated with the routes and in particular a considerable number additional bird species are associated with the Western Route.

Table 1 - Legislative Provisions & Designations relevant to Western & Northern Routes

| Ecological Legislation/Designation | Western Route | Northern Route |
|---|---|---|
| Candidate Special Area of Conservation (cSAC) | Adjacent to route | N/A |
| Special Protection Area (SPA) | Adjacent to route | N/A |
| SSSI: Lune Estuary | Adjacent to route | N/A |
| Ramsar Wetland of International Importance | Adjacent to route | N/A |
| Annex II(a) European Protected Species requiring favourable conservation status to be maintained or restored | | |
| Bat species | Substantial roosts & activity in route corridor | Activity noted |
| Great Crested Newt <i>Triturus cristatus</i> | Related populations & activity in route corridor vicinity | Not recorded |
| Salmon <i>Salmo salar</i> | Recorded in R. Lune | Recorded in R. Lune |
| Otter <i>Lutra lutra</i> | Recorded: R. Conder (non-ADAS records) | Recorded: River Lune (non-ADAS records) |
| Lamprey <i>Lampetra fluviatilis/L. marinus</i> | Present in R. Lune & R. Conder | Present in R. Lune |
| Bullhead <i>Cottus gobio</i> | Present in R. Conder | Not recorded |
| Annex IV(a) European Protected Species: requiring strict protection | | |
| Bat species | Substantial roosts & activity in corridor | Activity noted |
| Great Crested Newt <i>Triturus cristatus</i> | Related populations & activity in route corridor vicinity | Not recorded |
| Otter <i>Lutra lutra</i> | Recorded: R. Lune, R. Conder (non-ADAS records) | Recorded: R. Lune (non-ADAS records) |

Table 1 - Legislative Provisions & Designations relevant to Western & Northern Routes

| Ecological Legislation/Designation | Western Route | Northern Route |
|--|---|--|
| Birds Directive Annex 1 indicated by *** | | |
| Wildlife & Countryside Act: Schedule 1 | | |
| Berwick & Hooper Swans *** | Recorded | Not recorded |
| Black Tailed Godwit | Recorded | Not recorded |
| Barn Owl | Recorded | Not recorded |
| Brambling | Recorded | Recorded |
| Common & Arctic Terns *** | Recorded | Not recorded |
| Fieldfare | Recorded | Recorded |
| Green Sandpiper | Recorded | Recorded |
| Hawfinch | Not recorded | Recorded |
| Kingfisher *** | Recorded | Recorded |
| Mediterranean Gull *** | Recorded | Recorded |
| Merlin *** | Recorded | Not recorded |
| Peregrine *** | Recorded | Not recorded |
| Redwing | Recorded | Recorded |
| Wildlife & Countryside Act: Schedule 5: Protected Animals | | |
| Bat species | Substantial roosts & activity in route corridor | Activity noted |
| Great Crested Newt <i>Triturus cristatus</i> | Related populations & activity in route corridor vicinity | Not recorded |
| Otter <i>Lutra lutra</i> | Recorded: R. Conder (non-ADAS records) | Recorded: R. Lune (non-ADAS records) |
| Protection of Badgers Act 1992 | | |
| Badger <i>Meles meles</i> | Extensive activity | Not recorded |
| Biodiversity Action Plan Habitats & Species | Recorded | Recorded |
| Hedgerow Regulations 1997 | Extensive hedgerow network; 92% protected | Extensive hedgerows network; 87% protected |

4 Impacts & Implications

4.1 Potential Impacts on Candidate SAC & SPA

4.1.1 Western Route

The Morecambe Bay candidate Special Area of Conservation (cSAC)⁷ and Special Protection Area (SPA) is a European Protected Area, whose boundaries and reasons for designation largely coincide with those of the Morecambe Bay Ramsar site and the Morecambe Bay/ Lune Estuary SSSIs. Impacts described on the cSAC/SPA would therefore reflect impacts anticipated on the Ramsar site and Lune Estuary SSSI in the vicinity of the Western Route.

SACs and SPAs⁸ implement requirements under the Habitats Directive to create a coherent ecological network, the Natura 2000, which is designed to maintain or restore natural habitats and species of Community interest to favourable conservation status. The requirements of the Habitats Directive are intended to be implemented in the UK by The Conservation (Habitats etc) Regulations 1994⁹.

The deterioration of European Protected Areas and the actions required to bring them back into favourable conservation status are the subject of proposed legislative change in the UK¹⁰. The government considers that The Conservation (Habitats etc) Regulations 1994 do not currently properly transpose the Habitat Directive's requirements. The proposed regulations will introduce new powers to ensure that Natura 2000 sites, including cSACs and SPAs, and species, are protected from deterioration in their favourable conservation status, including deterioration resulting from neglect.

It should be noted that obligations requiring the maintenance or restoration of favourable conservation status of protected habitats and species can include a requirement to control activities undertaken outside the actual site boundaries of Natura 2000 and Ramsar sites, if these activities may affect the habitat or species' favourable conservation status.

The cSAC designation of Morecambe Bay, part of which is adjacent to the Western Route, is primarily concerned with preserving the integrity of the salt-marsh, mud flats, estuarine and marine habitats and features, including their maintenance as important habitats for wildfowl, waders and Great Crested Newts. Impacts on the cSAC would potentially include physical alterations to the vegetation, mud flats, inlets and lagoons caused by changes in the flow pattern resulting from the construction and use of the bridge at Aldcliffe Marsh. Indirect impacts from increased visitors and recreational activities resulting from greater awareness of the opportunities available in the estuary are also predicted.

⁷ UK government policy requires that candidate SACs and proposed SPAs are treated as though they are confirmed European sites as soon as they have been publicly proposed PPG9 Annex C para C7

⁸ SPA designation also implements requirements under Birds Directive to create protected areas, maintain sufficient diversity of habitats & take special conservation measures to conserve habitats of rare, vulnerable and regularly occurring migratory species

⁹ SI 1994 12716

¹⁰ A new Regulation 37A would confirm the duty of English Nature to assess the conservation status of habitats and species of Community interest; new regulations 39 and 43 would introduce new offences of carrying out an act which results in the deterioration of a European Protected Species of animal (Reg.39) or plant (Reg.43).

The impact assessment to date indicates that impact may occur on the cSAC salt-marsh in the Lune Estuary. It is not possible to predict with certainty the impact of the bridge construction etc., and the subsequent effects of the bridge piers on the erosion and accretion of salt-marsh in the estuary. Aerial photography has shown that natural processes do cause the erosion and accretion of salt-marsh in different parts of the estuary complex.

It is difficult to predict the level of significance of additional erosion and accretion, and thus impacts on the cSAC/SPA, caused by the construction and subsequent operation of the bridge, as change in accretion and erosion occurs naturally. Impacts on the cSAC/SPA are predicted to range from at least minor to potentially moderate in significance, depending on the final design features of the bridge and their interaction with the prevailing weather conditions. Impacts are considered most likely to occur during the construction phase.

A concern exists that the construction of the bridge could cause increased erosion of the walls of the Salt Ayre landfill site upstream and north of and outside the cSAC/SPA, which could release toxic materials into the River Lune and hence into the cSAC/SPA. Release of toxins would be contrary to UK water pollution legislation and depending on its extent and effects on the favourable conservation status of the cSAC/SPA, may also be contrary to UK nature conservation legislation.

Impacts on the cSAC/SPA may affect the populations of wildfowl and waders for which the SPA was designated. This may include impacts on:

- Overwintering populations using the mudflats and salt-marshes
- Overwintering populations using the surrounding fields outside the cSAC/SPA
- Breeding success of waders and wildfowl on the estuary
- Migrating birds resting on the mudflats, salt-marshes and surrounding fields

Potential impacts arising from the Western Route on birds for which the SPA was designated as habitat include:

- Disturbance during the construction phase. This would be a minor concern along the majority of the route, but would be potentially more significant at the bridge crossing point near Aldcliffe Marsh, which is within the cSAC/SPA. This may affect availability of feeding, breeding area and or/or breeding success in the vicinity.
- Disturbance during the use of the road. This is likely to have a minor impact on birds that currently use the fields adjoining the salt-marsh at high tides.
- Pollution incidents associated with the use of the road.

The majority of the bird species recorded using the marsh within the cSAC/SPA and the surrounding fields beyond its boundaries are relatively common and adaptable species, which may find alternative foraging areas once the scheme is complete. Other species using these areas are not common and would not necessarily be able to adapt to the disturbance introduced by the Western Route in the vicinity of the proposed bridge and the loss of areas outside the cSAC/SPA resulting from the route. Loss of use of part of the cSAC/SPA on Aldcliffe Marsh may be considered a deterioration of the European Protected Area's integrity, contrary to obligations under the Habitats Directive, particularly Art 6(2).

The loss of the inland grazing pasture areas (used by birds especially at high tide and in very cold weather) beneath the Western Route would reduce the total resource available to wintering, migrating and breeding birds in the vicinity.

Interpreting the significance of potential impacts on the cSAC/SPA must be considered in relation to the condition of part of the cSAC/SPA on Aldcliffe Marsh. This has deteriorated, significantly reducing its capacity to support species for which it was designated. The reduction in habitat condition has been attributed to overgrazing, disturbance caused by dog-walking in the vicinity and jet skiers using the river channels. This has reduced the suitability of this area for nesting, migrating and overwintering birds, including Redshank, among other species.

Received opinion¹¹ is that in situations such as this, appropriate assessment (as is being undertaken)¹² needs to be judged not in relation to the current degraded condition of the European Protected Area but by reference to the site's conservation objectives. Development that may further constrain achievement of these objectives in a Protected Area appears is considered unlikely to be acceptable. Assessment of the Western Route should therefore be based on the impact that would occur if the site had been in favourable conservation status, as this is the condition member states are obliged to achieve. If birds for which the site was designated (but which cannot currently use the site because of its poor condition) would have been significantly affected by the proposed Western Route, the impact should be assessed as significant.

A further factor which should be considered is the possible extension of the cSAC/SPA east of the existing flood bund in the vicinity of the Lune crossing, which would bring the proposed Western Route immediately adjacent to this area. Impacts on species more sensitive to disturbance are likely to result, potentially reducing the favourable conservation status of the habitat for these species and possibly affecting integrity of the site.

It is possible that impacts on the integrity of the cSAC/SPA may result from construction of the Western Route in the vicinity of the proposed Lune crossing. Projects which may affect European Protected Areas may only proceed where the authorities have ascertained that the project will not adversely affect the integrity of the site¹³, unless there are no satisfactory alternatives and the plan is essential for imperative reasons of overriding public interest¹⁴.

It is not possible to state definitively that the impacts of the Western Route would be so insignificant as to be regarded by a planning inspector or others as being insignificant. Proposals involving cSAC/SPAs are likely to be high profile and a high confidence level that no significant impact will arise is required if impacts are to be discounted as insignificant. In the absence of certainty of impacts, application of the precautionary principle is likely to be expected from the European Commission.

The level of uncertainty that exists regarding the potential impacts of the Western Route on the integrity of the European Protected Area leads to consideration of possible alternatives.

¹¹ "Favourable Conservation status: The Habitats Directive", Peter Scott, UK Environmental Law Association Nature Conservation Working Group, article in press for UKELA Journal, Oct 2003

¹² Required under Art. 6(3) Habitats Directive when plans or projects not directly connected with the site's management are likely to have a significant effect on the site

¹³ under Art. 6(3) Habitats Directive

¹⁴ under Art. 6(4) Habitats Directive

An alternative exists in the Northern Route and it is concluded that the justification for selecting the Western Route in ecological terms is likely to be undermined.

4.1.2 Northern Route

No impact is anticipated on the cSAC/SPA from the Northern Route as a result of its distance and the extent of intervening development.

4.2 Potential Impact on Ramsar Site

The Ramsar Convention on Wetlands of International Importance (1971) is an international treaty in which contracting parties accept a general duty to promote the conservation of wetlands and waterfowl, including designation of wetlands of international importance, establishing reserves and formulating planning so as to promote wetland conservation. The SPA designation largely reflects an extension of the Ramsar notification.

Non-compliance with obligations under the Ramsar Convention is not subject to legal sanctions such as those involved in breach of EU Directives and compliance is secured mainly by contracting parties' concern regarding international disapproval of their being seen to fail to meet the commitments they have made under the Convention.

4.2.1 Western Route

The potential impacts on the Ramsar site reflect those described for the cSAC/SPA.

4.2.2 Northern Route

No impact is anticipated on the Ramsar site from the Northern Route as a result of its distance and the intervening urban development.

4.3 Potential Impacts on SSSIs

SSSIs are designated for the purpose of securing the survival of any plant or animal species or to comply with international legal obligations. The protection given to SSSIs was reinforced by the Countryside & Rights of Way Act 2000, s.74. The cSAC/SPA and Ramsar site is based on SSSI designated areas.

4.3.1 Western Route

The potential impacts on the Lune Estuary SSSI reflect those described for the cSAC/SPA. The Government, via Defra, has a Public Service Agreement target to bring 95% of SSSIs into favourable conservation status by 2010. Currently only 56.5% of SSSIs are in this condition. Allowing further deterioration of the Morecambe Bay SSSI to result from the construction of the bridge would be contrary to this objective.

4.3.2 Northern Route

No impact is anticipated on the Lune Estuary SSSI from the Northern Route as a result of its distance and intervening urban development.

4.4 Potential Impacts on European Protected Species

European Protected Species (EPS) are listed in the Annexes of the Habitats Directives. The UK's obligations are transposed by The Conservation (Natural Habitats etc) Regulations and by the UK licensing regime associated with EPS.

The Habitats Directive¹⁵ requires the UK to implement a strict system of protection for species listed in Annex IV and to achieve favourable conservation status¹⁶ for those species in Annex II in their natural range¹⁷. The nature of the required strict system of protection is illustrated by the judgement of the European Court of Justice in *Commission v Greece*¹⁸ concerning Sea Turtles. The Greek authorities were found to have breached their obligations by failing to establish and implement an effective system of strict protection (notably by failing to control tourism activities) for the Sea Turtle, in order to avoid any disturbance of the species or destruction of its breeding sites.

The route options should be assessed for their consistency with these obligations. Proposals which contradict the strict protection required for Annex IV(a) species may only proceed¹⁹ under licence from Defra²⁰ if Defra is satisfied that:

- There is no satisfactory alternative. A detailed description of the alternative solutions considered must be provided, together with a Reasoned Statement of Application which provides a rational and reasoned justification describing how the proposed activity meets the requirements of The Conservation (Natural Habitats etc) Regulations.
- The action will not be detrimental to the maintenance of the population at favourable conservation status in their natural range.
- The proposal is necessary for one of a very limited number of reasons, which includes imperative reasons of overriding public interest.

Changes are proposed to The Conservation (Natural Habitats etc) Regulations to align them with the Habitat Directives' requirements. Amendment of Regulation 39 would make it an offence to undertake acts that would result in deterioration of a breeding site or resting place of a European Protected Species. Existing defences would be reduced, providing no defence if the perpetrator was, or could not have reasonably been expected to have been, aware of the effect of the act on a species listed in Annex IV(a) of the Habitats Directive.

A planning policy or decision, such as outline planning consent, made without due regard to protected species' needs is unlikely to meet the Directive's requirements. A proposed change

¹⁵ Under Art. 12 Habitats Directive

¹⁶ Under Art.3 Habitats Directive

¹⁷ Species may appear on both Annexes, as do Bats, Great Crested Newts & Otters

¹⁸ *Commission v Greece* C-103/00 30th January 2002

¹⁹ Art.16 Habitats Directive

²⁰ Conservation (Natural Habitats etc) Regulations 1994

in UK law²¹ would clarify the duty on Local Planning Authorities to ensure that planning permission is not granted for developments which breach the protection of European Protected Species, unless the provisions of Article 16 are met. Art.16 involves establishing the absence of any satisfactory alternatives, confirmation that the proposal will not be detrimental to maintaining the species' favourable conservation status and specifies very limited circumstances in which derogation from the Habitats Directive is possible.

Article 10 of the Habitats Directive, (reiterated in PPG9), requires member states to endeavour to incorporate plans in their land-use, planning and development policies for managing features of major importance to wild fauna and flora, which provide for linear links which connect areas of suitable habitat for species, as well as sites which function as stepping stones. Rivers, hedgerows, small woods and ponds are specified as essential to the migration, dispersal and genetic exchange upon which many species depend.

4.4.1 Bats

All Bat species are listed Annex II(a) and IV(a) species of the Habitats Directive. Annex IV(a) species require strict protection measures under Art.12. All species and their breeding sites and roosts are protected under Regulation 39 of The Conservation (Natural Habitats etc) Regulations 1994 and Section 9 of the Wildlife & Countryside Act 1981. Licences are required from Defra (see appendices) to undertake activities associated with development involving the capture, disturbance of Bats and/or the destruction or disturbance of their roosts or resting places.

British Bat species have three primary requirements:

- Summer Roosts - breeding sites
- Winter roosts - hibernation sites
- Feeding areas

To ensure the continued survival of Bats in a given area, all of these requirements need to be met.

Western Route

The surveys to date have identified extensive use of the area involving a number of different Bat species along the vicinity of the route, except at the extreme southern end where activity was lower. A number of summer roost sites were identified, one of these (a tree at Whinney Carr) would be removed and another roost (Black Poplar at Freeman's Wood) lies very close to the proposed route. A number of hedgerows, ponds and other important feeding habitats for Bats have also been identified. A proportion of the hedgerows and ponds known to be used by Bats would be removed as a result of construction of the Western Route. This would have a significant impact on the feeding pattern of Bat colonies in the vicinity of the route and may have the adverse effect of isolating some of the summer Bat roosts from feeding grounds that may, in turn, cause the summer roosts to be abandoned.

²¹ Defra-ODPM Consultation 2003: Legislative Proposals – Habitats Directive and the Land Use Planning Regime

A risk of increased road casualties is associated with Bats and road traffic. As a result of the high levels of Bat activity in close proximity to the route and the anticipated traffic volume and speed, road mortality is predicted to result from the operation of the Western Route. It is not possible to quantify the level of this mortality.

The destruction of a Bat roost would constitute deliberate disturbance to individuals and deterioration or destruction of their breeding sites and resting places, contrary to Art.12 of the Habitats Directive which requires establishment of a system of strict protection for Annex IV(a) species. Licenses can be applied for from Defra to undertake such action but can only be issued if Defra is satisfied that there is no satisfactory alternative, the action will not be detrimental to the maintenance of the species' population at favourable conservation status in their natural range and the proposal is necessary for one of a limited number of reasons. These reasons include imperative reasons of overriding public interest.

Given the existence of the alternative Northern Route which is not predicted to require licensable activities, the issue of licences for work involving Bat roosts or resting places on the Western Route may not be justifiable under the Defra UK licensing requirements. The location of the road in such close proximity to a second Bat roost (the Black Poplar) would cause disturbance and increase the risk of road deaths.

The extent of severance and loss of hedgerows, ponds and other navigation and foraging habitats is considered likely to have a significant impact on the Bat population in the vicinity of the Western Route. Such impacts would not support the objectives of Art. 3 of the Habitats Directive, which requires the maintenance or restoration of habitats of Annex II(a) species to favourable conservation status, or Art. 10 which requires endeavour to encourage the management of landscape features of major importance to wild fauna and flora. Compensation measures proposed are predicted to eventually (after approximately 15 years) provide some compensation for the losses incurred.

Northern Route

Low levels of Bat activity were recorded in the vicinity of the Northern Route, including low levels of activity associated with hedgerows and no roosts were identified within the Route corridor. Impacts from habitat loss and fragmentation on Bats are predicted to be limited to moderate impacts as a result of the absence of roosts and low levels of activity in the area. The level of road kill associated with the route is considered likely to be lower than that associated with the Western Route as a result of the low level of Bat activity in the area.

Impact from the loss of other foraging areas is predicted to be insignificant as there are no ponds and limited loss of other potential Bat foraging habitats. Moderate impacts on Bats are predicted to result, in contrast to the Western Route where major impacts are predicted to remain after mitigation. Compensation measures would eventually (after approximately 15 years) provide some compensation for the losses incurred and may increase the suitability of habitat for Bats from its current level.

4.4.2 Great Crested Newts

Great Crested Newts are listed Annex II(a) and IV(a) species under the Habitats Directive. Annex IV(a) species require strict protection measures under Art.12. All individuals and their breeding sites and resting places are protected under Regulation 39 of The Conservation

(Natural Habitats etc) Regulations 1994 and Section 9 of the Wildlife & Countryside Act 1981. Licences are required from Defra (see appendices) to undertake activities associated with development involving capture, disturbance or relocation of Great Crested Newts, or destruction of their breeding sites or resting places.

Western Route

The current Western Route alignment would pass between two recorded Great Crested Newt ponds. These ponds are relatively close and it is believed that they provide habitat for a genetically related and interactive population (a metapopulation). Consequently it is expected that severance of the individual populations would significantly affect the species if the Western Route was adopted, as the populations would become isolated from one another. Such isolation would make them vulnerable to extinction as the population in each pond may not be a viable breeding population.

Newts spend a proportion of their lives on land and hibernate in areas including rough grassland and hedgerows. It is believed that the existing interlinking hedgerow network is important in maintaining the metapopulation for movement and hibernation. The Western Route would involve impacts from extensive hedgerow removal and severance of movement corridors, habitat loss and potential road kill. Proposed mitigation measures include creating new ponds, a hedgerow network in advance of the road construction and introduction of newt-proof fencing and are intended to reduce these impacts to a minor level.

It is not certain that the mitigation measures would be fully effective in mitigating negative impacts because the isolated populations may cease to be viable breeding populations once separated by the route and because the hedgerows and ponds may not be sufficiently mature by the time the road construction begins to support the two isolated populations. In this case the residual impacts of the scheme would remain critically significant.

The scheme would require application for Defra licences. Licences can only be issued for activities involving disturbing or relocating Great Crested Newts or damaging their breeding or resting places if Defra is satisfied that there is no satisfactory alternative and the action will not be detrimental to the maintenance of the population of the species at favourable conservation status in their natural range, and for a very limited number of reasons which include overriding public interest.

The possible negative impacts on individuals and their habitats that may arise from the Western Route may be considered inconsistent with the Habitats Directive Art. 12 requirements for strict protection of Annex IV(a) species, Art. 3 maintenance or restoration of favourable conservation status of Annex II species and their habitats, or Art. 10 encouraging management of landscape features of major importance to wild fauna and flora.

The Northern Route is predicted to have no impact on Great Crested Newts. It may be difficult to justify the issue of licences for work involving disturbance to Great Crested Newts or their habitats on the Western Route under the Directive or under the Defra UK licensing requirements, because of the existence of the alternative route.

Northern Route

No evidence of Great Crested Newts was found and no impacts are predicted to result on Great Crested Newts from the Northern Route.

4.4.3 Otters

Otters are listed in Annex II(a) and IV(a) species of the Habitats Directive. Annex IV(a) species require strict protection measures under Art.12. Individuals and their breeding sites are protected under Regulation 39 of the Conservation (Natural Habitats) Regulations 1994 and Section 9 of the Wildlife & Countryside Act 1981. Licences are required from Defra to undertake activities associated with development which may disturb Otters or their breeding or resting sites.

Otters are wide-ranging, elusive animals and can cover territories up to 35km. High levels of Otter mortality are associated with roads, in England an average 60% of Otter mortality is estimated to be attributable to road deaths. Habitat Directive obligations under Art.12 require establishment of a system of strict protection and under Art.3, to achieve favourable conditions for restoring and maintaining Otter populations.

Western Route

The current ADAS survey did not record Otter presence or holts within the survey area. However, surveys undertaken by other agencies indicate Otters are present on the River Lune and River Conder. The River Lune records relate to the M6 crossing point. Individuals may move up and down the Lune Estuary and may use the estuary to access the River Conder. The canal may also be of significance, allowing movement throughout the Western Route. The current scheme crosses the Lancaster Canal at two points and comes close to the Canal at Ashton Park Bridge. These points of proximity pose risks of road fatalities and may cause disturbance from vehicle movements and lighting. The scheme also crosses Burrow Beck, another area potentially used by Otters.

Licence applications are not anticipated to be necessary as a result of the absence of the need to disturb Otters or their breeding or resting places. However, road fatalities present a risk, particularly as the Otter population is likely to currently be at a vulnerably low level, in which death of individuals can have a dramatic effect on the survival or recovery of the population in the area.

The risk of road deaths associated with the Western Route is proportionately greater than that associated with the Northern Route, as a result of its greater length and its intervention between habitats which are attractive to Otters, namely the watercourses which pass from east to west between the Canal, and the estuarine habitats to the west and north-west. Mitigation is proposed to minimise these risks.

Northern Route

The current ADAS survey did not record Otter presence or holts within the survey area. However, surveys undertaken by other agencies indicate Otters are present on the River Lune in the vicinity of the existing M6 crossing point. Otters may also use other parts of the Lune Estuary. The two proposed bridges over the Lune, if designed as high level and wide span, would offer no impediment to Otter movements. Localised disturbance caused by traffic at the Salt Ayre crossing is considered unlikely to result in significant impacts on Otters, as the current M6 bridge does not discourage Otters (evidenced by recent Otter records from 2000-2002). It is predicted that the introduction of an additional bridge close by will not add significantly to disturbance or other adverse effects on Otters. The crossing of the Lancaster Canal could represent a risk of road deaths and mitigation measures are

proposed at the crossing to ensure movement of Otters under the bridge and prevent their straying up to cross the road.

Licence applications are not anticipated to be necessary as a result of the absence of the need to disturb Otters or their breeding or resting places. However, road fatalities present a risk, particularly as the Otter population is likely to currently be at a vulnerably low level, in which death of individuals can have a dramatic effect on the survival or recovery of the population in the area. Mitigation is proposed to minimise the risks.

4.4.4 Lamprey & Bullhead

Western & Northern Routes

Salmon, Lamprey and Bullhead are all listed in Annex II(a) of the Habitats Directive, which requires the maintenance or restoration of their favourable conservation status. Salmon are recorded as present in the River Lune for both Northern and Western Routes. Lamprey are recorded as present in the Rivers Conder and Lune on the Western and Northern Routes. Bullhead are recorded as present in the River Conder on the Western Route. The impact assessment indicates that impacts on the species on both Western and Northern Routes can be reduced to a minor level by adopting best practice in site construction and management.

5 Potential Impacts on Nationally Protected Habitats & Species

5.1 Bats, Great Crested Newts & Otters

Bats, Great Crested Newts and Otters are all protected under the Wildlife and Countryside Act 1981 and are discussed in Section 4.4 Potential Impacts on European Protected Species.

5.2 Badgers

Badgers and their setts are protected under the Protection of Badgers Act 1992, making it illegal to kill, injure, or take Badgers or to interfere with a Badger sett (whether occupied or not). Actions may only be taken under license from the appropriate licensing authority, which is English Nature in the case of land development. It is essential to detect Badgers, and especially their setts, prior to any development that might disturb or interfere with them. Badgers are far-ranging and high levels of road fatality are associated with them, with an estimated road kill of 50,000 animals in Britain annually.

5.2.1 Western Route

The high level of Badger activity is associated with the Western Route. Twenty two potentially active setts were identified within the corridor and lying close to the road footprint. One of the major active setts lies north of the route, very close to the alignment of the proposed Western Route. It is expected that significant mitigation would be needed to

allow animals from this colony to continue to forage southwards across the line of the Western Route. A loss of foraging areas under the route footprint is predicted.

The construction of the Western Route, unless effectively mitigated, would sever a number of feeding routes and a significantly increase road casualties. Proposed mitigation includes Badger fencing and tunnels, which if properly implemented and maintained, should reduce these impacts.

5.2.2 Northern Route

No evidence of Badger setts or activity was found. As a result it is predicted that there will be no impact on this species or need for mitigation.

5.3 Barn Owl

Barn Owls have suffered serious decline in their population and are protected under Schedule 1 of the Wildlife & Countryside Act 1981 (as amended). Special penalties, beyond those applied to other wild birds, apply to killing, injuring, taking, damaging or destroying their nests or eggs. High levels of road fatality are associated with Barn Owls.

5.3.1 Western Route

A Barn Owl was recorded alive during surveys and subsequently a road fatality was confirmed. It is thought the species may be beginning to colonise the area. New hedgerows along the perimeter of the route could provide additional habitat. However, the likelihood of fatality resulting from road kill would also be increased. The significance of the death of individuals increases when small populations, such as the situation here, are involved, due to the resulting death of young broods when their parents are killed and the loss of young adults to replace ageing individuals.

5.3.2 Northern Route

Barn Owls were not recorded on the Northern Route. No impacts are predicted to result from selection of this route.

6 Potential Impacts on BAP Habitats/Species & Local Non-Statutory Designations

6.1 BAPs

The Convention on Biological Diversity (CBD) 1992 is an international treaty to which the UK is a signatory. Contracting parties must, in accord with prevailing conditions and capabilities, develop or adapt national strategies plans and programmes for biodiversity conservation and

integrate conservation and the sustainable use of biological diversity into their plans, programmes and policies.

In order to implement UK obligations under the CBD, the Countryside & Rights of Way Act 2000 s.74 imposes a new obligation on the Secretary of State and all government departments to promote the conservation of biodiversity, including listing species and habitats necessary to achieve that purpose. In response, Biodiversity Action Plans for habitats and species and Species Recovery Programmes to restore species to Favourable Conservation status have been developed.

6.2 Birds

6.2.1 Western Route

The use by birds of land within the Western Route varies with the species concerned. Like Bats, birds' use different habitats for different purposes. They often have different requirements for nesting and feeding. The two main habitats affected by the Western Route would be the extensive loss of agricultural pasture and the loss of hedgerows.

The loss of pasture would affect the feeding potential for many species and the nesting potential for BAP species, including Lapwing and Skylark. The loss of hedgerows will influence the breeding success of many small birds, including many BAP Species, such as Grey Partridge and Linnet.

6.2.2 Northern Route

Significantly less impact is predicted to result on BAP habitats and species on the Northern Route, as a result of its significantly smaller footprint and shorter route length, involving severance of fewer hedgerows and its occupation of a smaller area of bird foraging areas.

6.3 Otter

The UKBAP for Otter aims to restore breeding Otters to all catchments and coastal areas in which Otters have been recorded since 1960 and to achieve appropriate land management for all riparian habitats and catchments.

6.3.1 Western Route

As discussed in the section on European Protected Species, the selection of the Western Route may result in increased Otter road fatalities at the two canal crossing points, the canal proximity point at Ashton Park Bridge, at the River Conder and at Burrow Beck. Careful mitigation design should assist in reducing potential impacts. A greater cost and a lower confidence of success would be associated with mitigation on the Western Route, due to the more extensive nature of the road and associated crossing risks to Otters.

6.3.2 Northern Route

As discussed in the section on European Protected Species, the selection of the Northern Route may result in increased road casualties at the Lancaster Canal crossing point and requires appropriate mitigation design. The overall extent of road death risk is considered lower than the Western Route due to the significantly shorter length and orientation of the Northern Route in relation to suitable Otter habitats. Careful mitigation design could assist in reducing potential impacts.

6.4 Brown Hare

6.4.1 Western Route

Brown Hare (*Lepus europaeus*) were noted throughout the route with the largest number of sightings towards the southern end of the route. The species is likely to be negatively affected by road kill and the isolation of populations resulting from the route. Positive effects may result from mitigation measures that create additional habitats.

6.4.2 Northern Route

Few records of Brown Hare were found on the Northern Route. Population isolation and road kill would present risks to Brown Hare. These risks would be proportionately less due to the shorter route and smaller footprint, 72 hectares in contrast to 149 hectares, compared to the Western Route.

6.5 Fungi

6.5.1 Western Route

The current surveys have not recorded any Fungi of Conservation Concern on the Western Route.

6.5.2 Northern Route

Surveys of fungi in the Northern Route recorded the presence of a South Lancashire Biodiversity Action Plan Species, the Pink Wax Cap (*Hygrocybe calyptraeformis*). This species is found in grasslands and would require mitigation were the Northern Route to be selected.

6.6 Potential Impacts on Hedgerow Habitats

6.6.1 Western & Northern Routes

Although the National BAP habitat "Ancient and Species-rich Hedgerows" is not included in the Lancashire Biodiversity Action Plan, it represents one of the most significant wildlife habitats within both scheme corridors. As a consequence of the considerably greater length of the Western Route, it will inevitably involve removal of a substantially larger number of hedgerows compared to the Northern Route.

The ecological importance of hedgerows derives from their value as wildlife habitats for resident plant and animal species and from their use by animals for navigation and as a feeding resource. The value of individual hedgerows is dependent on the species composition, their degree of intactness and structural and management characteristics. The Hedgerow Regulations 1997 aim to preserve the most important examples. The current surveys have demonstrated the importance of hedgerows for bird and Bat species and have highlighted the relatively greater importance of the hedgerow network on the Western Route.

Landowners would normally be required to apply for a Hedgerow Removal Notice before being allowed to remove any length of hedge. The application requires an assessment of the hedgerow in question to determine whether or not such a notice could be granted. The surveys identified those hedgerows that would, ordinarily, be protected under the current legislation and also under the revised criteria, which are currently being reviewed.

Significantly more hedgerows are protected under the Hedgerow Regulations on the Western Route, 94%, compared with the Northern Route 87%. The loss of hedgerows would be greater on the Western compared to the Northern Route. 11km of hedgerow would be lost on the Northern Route compared to 14 km on Western Route. Ninety four hedgerows would be lost or damaged by the Northern Route compared to 131 hedgerows on the Western Route. On the Western Route there are 45 hedgerows that currently cross the route and would be severed compared with 21 that cross the Northern Route. This is a significantly greater loss of connections across the Western Route. Severing connections over a longer length on the Western Route would have a more significant negative impact compared with the shorter length of the Northern Route. Evidence also suggests that hedgerows that cross the Western Route are used more intensively by animals, particularly Bats.

On the basis of hedgerow loss, the ecological justification for selecting the Western Route would be questionable, given the significantly greater loss of hedgerow habitats and the associated species.

6.7 Potential Impacts on Biological Heritage Sites

Biological Heritage Site (BHS) is a non-statutory designation. A range of different habitat types are represented in BHSs on both the Western and Northern Routes, the largest number and highest ecological value BHSs being associated with the Western Route.

6.7.1 Western Route

BHSs likely to be affected on the Western Route are:

- Lancaster Canal BHS: Two locations on the Canal where the route crosses it and a further point where the route passes close to it. The Canal is a linear feature significant for its extensive use by Bats (which roost in summer in the deep cutting and in large colonies at a farmhouse and the bungalow next to Whinney Carr Farm) and by feeding birds. A significant risk of road casualties is associated with Bats and road traffic, as discussed in the previous section on European Protected Species. The Bat roost tree at Whinney Carr would be destroyed by development of the current route.
- Freeman's Wood BHS: A native Black Poplar in this BHS that would, according to the latest footprint, be very close to the scheme. It includes a potential Bat roost, discussed in the section on European Protected Species. The route runs close to this BHS and it is expected that there would be disturbance to birds and Bats using this habitat for feeding and breeding.
- Berry's Farm and Sellerly Farm Ponds (four ponds) BHS: Great Crested Newt ponds are associated with these BHS sites. Impacts on the Great Crested Newt ponds either side of the scheme and were discussed in the section on European Protected Species.
- Crane Wood BHS: A section at the extreme north-east corner of this BHS would be removed by the Western Route. This section is also associated with two of the most significant hedgerows locally, which run east-west and contain locally uncommon, ancient woodland indicator species, including Goldilocks Buttercup (*Ranunculus auricomus*).
- Scale House Pond BHS: This BHS would be lost under the scheme footprint. This is not a Great Crested Newt pond, but would represent a significant erosion of the aquatic ecological capital of the locality owing to its size and position relative to other ponds.
- Oxcliffe Marsh BHS: This BHS would be largely lost under the scheme footprint. This is a small fragment of a more extensive tract of saltmarsh habitat that would represent a reduction in the ecological capital of this community, would cause fragmentation of saltmarsh habitat. This BHS adjoins the River Lune BHS and is close to the cSAC/SPA boundary further west.
- River Lune BHS: This extensive linear BHS forms an extension of the cSAC/SPA eastwards. On completion it is not expected that there would be significant impacts resulting from vehicle movements and street lighting. Otters may use the river at the proposed river crossing point. The high level and wide span of the proposed bridge would avoid the road fatality risk to Otters in this location.
- Burrow Beck BHS: The route passes close to this BHS. Disturbance to birds and road casualties of Bats are predicted to be associated with vehicle movements. As with other watercourses in the vicinity, Otters may use the Beck and mitigation needs to be incorporated in the Beck crossing design to reduce risks of road fatalities.

6.7.2 Northern Route

The BHSs on the Northern Route that may be affected by the scheme are:

- Lancaster Canal BHS: There would be one crossing point over the Canal, which would be over open terrain, in contrast to the crossings on the Western Route which are over deep cuttings extensively used by Bats. The crossing is not predicted to have a significant impact on Bats or on bird species using this stretch of canal.
- Long Bank Wood BHS: This BHS is within approximately 50 metres of the proposed route. Significant impacts are not predicted as the BHS was not found to contain significant wildlife interest. At the closest point to the route this wood is open and does not contain a significant woodland ground-flora, being accessible to grazing animals.
- Foundry Lane Verges BHS: This BHS is within approximately 50 metres of the proposed route. Significant impacts are not predicted as the BHS was not found to contain significant wildlife interest. The current status appears to be declining in value, partly as a result of scrub encroachment onto what is designated a grassland BHS. The value is mainly botanical and the flora is not anticipated to be affected by the scheme.
- River Lune BHS: At the Salt Ayre crossing point the Lune is tidal and will be used by birds passing up and down stream. On completion it is not anticipated there would be significant impacts resulting from vehicle movements and street lighting. Otters may use the river at the Salt Ayre and M6 crossing points. The high level and wide span of the proposed bridges would avoid road fatality risk to Otters in these locations.

6.8 Cumulative & Indirect Impacts: Western & Northern Routes

Many groups of bird, animal and insect species are dependent on hedgerow habitat. Hedgerows provide food plants for many invertebrates, which in turn are prey to a wide range of mammal and bird species during the day and Bat species at night. Hedgerows with significant grassy ground floras also support small mammals, which in turn fall prey to species including Owls, Stoats/Weasels and Kestrels.

An extensive micro-ecology is dependent on the continued existence of a network of hedgerows. Severing this network would affect the overall ecological resource within each route. The existing mosaic of hedgerows, woods, ponds and pasture provides an ecosystem which supports many species interdependent on one another (for example, as prey species) including the specially protected species discussed earlier, whose survival depends on the availability of many non-protected species as food supplies.

A significantly larger impact would result from the proposed severance and removal of hedges and the loss of habitats resulting from the Western Route, because of its significantly greater severance of hedgerows and significantly larger footprint of 149 hectares, compared to 72 hectares on the Northern Route.

The Western Route is designed with the capacity to be extended to dual carriageway. Ecological impacts of the route would increase in future if the road is dualled, in terms of damage to the mitigation measures introduced for the original proposal, further loss of foraging areas, possible removal of hedgerows and woods, an increased risk of road fatalities and increased levels of disturbance. The cumulative negative impacts are therefore predicted to be greater on the Western Route than those on the Northern Route.

Indirect impacts on biodiversity resulting from development induced by the Western Route are anticipated to be greater than those on the Northern Route, as a result of its greater length involving more potential access points and opportunities to encourage development pressure.

Consultation with English Nature resulted in concern being expressed regarding the potential future indirect impacts likely to result from increased recreational activities within the cSAC/SPA, should the Western Route be constructed. The overview of the estuary provided by the route would bring the attention of large numbers of people to the recreational opportunities presented by the estuary and the moorings at the Golden Ball Inn. Increased recreational pressure is anticipated in terms of water sports, including water-skiing, jet-skiing, and increased disturbance on land, which is anticipated to have a damaging effect on the cSAC/SPA.

7 Conclusion

The conclusion of this report is that the Western Route would be difficult to justify at the EU and the domestic level at a public inquiry as a result of its potential impacts on biodiversity. Selection of the Western Route may be contrary to the UK's obligations under EU law, given its potential impacts on Annex II(a) and IV(a) European Protected Species (Bats and Great Crested Newts) and the risk of potential impacts on the cSAC/SPA (and Ramsar site and Lune Estuary SSSI). The availability of an alternative route, which is predicted to result in no damage to European Protected Species or Areas under the Habitats Directive, indicates that the Northern Route would be the most appropriate choice. It is open to the European Commission to bring legal proceedings against the UK government if it is decided that a breach of Habitat Directive obligations has occurred.

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