

# CARLISLE CITY COUNCIL

Report to:- **Development Control Committee**

Date of Meeting:- 31 January 2003

Agenda Item No:-

A.3

Public

Information

Delegated: Yes

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## Accompanying Comments and Statements

	Required	Included
Environmental Impact Statement:	No	No
Corporate Management Team Comments:	No	No
City Treasurers Comments:	No	No
City Solicitor & Secretary Comments:	No	No
Head of Personnel Services Comments:	No	No

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Title:- **ENVIRONMENTAL ASSESSMENT OF PROPOSED HOUSING EMPLOYMENT AND PUBLIC OPENSACE DEVELOPMENT, LAND AT MORTON, CARLISLE**

Report of:- **Head of Planning Services**

Report reference:- **P.05/03**

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## Summary:-

This report informs Members of the receipt of the Environmental Statement for part of the urban extension at Morton, Carlisle allocated in the Carlisle District Local Plan.

## Recommendation:-

That the contents of this report be noted.

Alan Eales  
Head of Planning Services

Contact Officer: Alan Eales

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Note: in compliance with section 100d of the Local Government (Access to Information) Act 1985 the report has been prepared in part from the following papers: Environmental Statement from the Church Commissioners and Crowther Homes and none technical summary.

**1.0 Introduction**

- 1.1 The City Council has received, from Smiths Gore the Environmental Statement and non-technical summary concerning part of the land allocated at Morton for development. The Environmental Statement is with regard to Planning Applications 98/0234: Development of Land for Residential, Employment and Public Openspace (outline application submitted by the Church Commissioners) and 00/0439: Residential Development (outline application submitted by Merewood Homes). These two applications cover the majority of the land allocated in the Carlisle District Local Plan between Wigton Road, Peter Lane and Dalston Road.
- 1.2 A similar Environmental Statement will be submitted within the next two to three months with regard to application 00/0748: Erection of 197 Detached and Link Houses, Bungalows and Flats (detailed planning application submitted by Alfred McAlpine Homes), on the remaining land allocated in the Carlisle District Local Plan to the North West of Wigton Road.
- 1.3 The background to these applications and the situation at Morton was detailed in the Report EN.108/01 Morton Planning Application: Background Report, considered at the Planning & Land Use Sub Committee, at their meeting on the 22 June 2001.
- 1.4 The report outlined the history of the Local Plan allocations, the Local Plan Inquiry and the Inspector's Report, which recommended that the allocation should be adopted in the Local Plan. The Council adopted the inspector's recommendations and prepared the Morton Development Plan. In order to co-ordinate the individual planning applications that had been received, the Council and the applicants jointly commissioned the Morton Master Plan which provided more detail on the allocations and the manner in which the allocations should be developed.
- 1.5 At the meeting on the 22 June 2001 the Planning and Land Use Sub Committee also considered the three applications which are the subject of the two Environmental Statements. The report also informed Members that the Government Office for the North West (GONW) had issued an Article 14 Direction on the Council.

- 1.6 The Article 14 Direction required the Council not to determine these applications. GONW indicated, however, that they valued the Council's view on whether it was mindful to approve the applications and if so that intention had to be notified to GONW under the provisions of the Town & County Planning (Residential Development on Greenfield Land) (England) Direction 2000. The purpose of the Article 14 Direction was for the Government Office to consider the applications, the Council's view, together with the objections to consider whether the applications should be called in.
- 1.7 At the Committee the Members resolved that they were mindful to approve the applications and GONW was informed of the recommendation.
- 1.8 In a letter dated the 19 July 2001 GONW informed the Council and the applicants that the then Secretary of State for the Environment, Transport and Regions directed Carlisle City Council to refer the applications to him for determination. In addition, the Secretary of State decided to hold a local inquiry into these applications, but before arranging that inquiry he required an Environmental Statement to be prepared for each of the applications. This Environmental Statement is therefore in response to that requirement and when the other Environmental Statement has been received by the Government Office a Planning Inquiry will be arranged. However, this is unlikely to be until the autumn and the Council is unlikely to know the result of that inquiry until early 2004.
- 1.9 Effectively this means that the consideration and determination of these applications is now out of the hands of the City Council. The publicity, consultation and the arrangements for the Public Inquiry are now the responsibility of GONW.
- 2.0 The Environmental Statement**
- 2.1 As with most Environmental Statements it is a very weighty document and the applicants have provided a non-technical summary, which is attached at Appendix 1 together with Plan No. CC/Morton EA/4.1. Copies of the full Environmental Statement are available in Planning Services if Members wish to study it in more detail.

- 2.2 As can be seen the non-technical summary provides an introduction in Section 15.1. Section 15.2 provides the description of the site and proposed development, Section 15.3 considers the environmental issues and Section 15.4 considers alternative sites. The environmental issues considered are transport, landscape and visual impact, ecology, water quality and drainage, agriculture and archaeology.
- 2.3 Each specialist consultant working on the Environmental Impact Assessment carried out a preliminary assessment of the Master Plan Proposals and considered alternatives or additional measures that could be incorporated into the proposed development to further reduce its environmental impact. Measures recommended from each of the preliminary assessments were considered during the early stages of the EIA process and were appropriately incorporated into the proposed development.
- 2.4 The Environmental Statement also examined the availability of alternative sites. It concludes that the allocations in the Carlisle District Local Plan followed a comprehensive site selection process during which alternative sites were considered. The summary also recognises that the City Council has carried out a comprehensive Urban Capacity Study, which considered the potential for development within Carlisle District on brownfield sites. It concludes that no alternatives have been identified that are environmentally more acceptable than the housing and employment allocations at Morton and that the Mixed Use Urban Extension proposed for the Morton allocation will achieve a development within the government's objectives for sustainable development.

### **3.0 Recommendation**

- 3.1 That the contents of this report be noted.

Alan Eales  
Head of Planning Services

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## Appendix 1

### Non-Technical Summary

## CHAPTER 15 – NON TECHNICAL SUMMARY

### 15.1. INTRODUCTION

- 15.1.1 Two outline planning applications, for housing, employment and public open space development on 51 hectares of land at Morton, Carlisle, have been submitted to the local planning authority, Carlisle City Council. The Applicants are the Church Commissioners and Crowther Homes.
- 15.1.2 Carlisle City Council has resolved to grant planning permission for the Applications. However, the Applications have been 'called in' by the Secretary of State (now the Office of the Deputy Prime Minister) for him to determine. The Secretary of State has decided to hold a local inquiry into the Applications. He has also required an environmental impact assessment (EIA) to be carried out and an environmental statement to be submitted.
- 15.1.3 Smiths Gore has carried out the EIA for the development proposed in the two Applications (the Proposed Development) and prepared this joint ES. A scoping exercise, which included consultation with Carlisle City Council, was carried out prior to commencing the EIA, to identify the issues that have the potential to have an impact on the environment. The key environmental issues were identified as Transport, Landscape & Visual Amenity, Ecology, Water Quality & Drainage, Agriculture and Archaeology. These key issues have been subject to detailed assessment by specialist consultants. Air Quality and Noise were identified as issues that needed consideration, but that did not require detailed specialist assessment.
- 15.1.4 Whilst ensuring that the scope of the original Applications has not changed, the EIA process has been used to refine the Proposed Development, to ensure that the potential adverse environmental impacts identified during the EIA have been taken into account. Consequently, all mitigation measures recommended as part of the EIA have been considered and, where appropriate, incorporated into the Proposed Development.
- 15.1.5 The two Application sites form part of a larger area of land at Morton, allocated in the Carlisle District Local Plan for mixed use development comprising housing, employment, a neighbourhood food store, a park and ride facility and public open space. Where appropriate, the EIA has taken account of the cumulative impact of the overall development of the Morton Allocation.
- 15.1.6 The EIA was carried out between September 2001 and September 2002. The findings of the EIA are contained within a comprehensive Environmental Statement, which was submitted to the Government Office North West on 6<sup>th</sup> January 2003.
- 15.1.7 The Environmental Impact Assessment Regulations specify that an ES should include *"a summary in non-technical language of the specified information."* The information that is specified is:
- A description of the development, including information about the site and the design and size of the development.
  - The data that is needed to identify and assess the main effects that the development is likely to have on the environment.

- A description of the measures that are proposed to avoid, reduce or remedy any significant adverse effects.
- An outline of the main alternatives that have been studied by the Applicant and the reasons for choosing the application site.

15.1.8 Set out in the following paragraphs is the Non-Technical Summary of the Environmental Statement.

## **15.2. DESCRIPTION OF THE SITE AND THE PROPOSED DEVELOPMENT**

### **15.2.1. The Site**

15.2.1.1 The Site comprises the area of land within the Morton Allocation that is covered by the Church Commissioners and the Crowther Homes Applications and is shown outlined in red on Plan No. CC/MortonEA/0.1.

15.2.1.2 The Site is located on the south western outskirts of Carlisle, immediately south of the suburb of Morton. Carlisle City centre lies approximately 2.5 kilometres to the north east. The Site is bounded to the west by the A595 Wigton Road, to the east by the B5299 Dalston Road and to the south by Peter Lane. The location of the Site is shown on Plan No. CC/MortonEA/3.1.

15.2.1.3 The Site covers 51 hectares and comprises agricultural grazing land divided into fields by well maintained hedgerows. Cummersdale Grange Farm lies within the eastern edge of the Site. The land is gently undulating, forming a shallow valley running generally east west through the Site. The landform rises from the lowest point (33 metres AOD) in the north east to around 50 metres AOD on the western and southern edges of the Site. A small stream, Fairy Beck, enters the Site at its western corner and flows to the north east until it enters a culvert in the corner of the most northerly field on the Site. The Beck flows in a culvert underground in a northerly direction to meet Dalston Road about 400 metres from the Site boundary and eventually flows into the River Caldew. A number of smaller streams and drainage ditches cross the Site and drain into Fairy Beck.

15.2.1.4 One public right of way, Bridleway No.111017, crosses the Site in a north westerly direction, from Dalston Road near to the Cummersdale Grange Farm buildings across to Garden Village.

15.2.1.5 The Site and the surrounding area are shown on Plan No. CC/MortonEA/3.3.

### **15.2.2. The Proposed Development**

15.2.2.1 The Proposed Development, which is the subject of the EIA, is the development proposed in the Church Commissioners and the Crowther Homes Applications. Together, the land covered by these two Applications comprises the Site.

15.2.2.2 The Applications are outline applications and, when submitted, they contained very little detail about the Proposed Development. The EIA process has been used to add further detail about the layout, scale and design of the Proposed Development. This has included incorporating the mitigation measures recommended during the EIA into the development proposals. The Proposed Development is shown on Plan No. CC/MortonEA/4.1.

15.2.2.3 The Site comprises the following gross development areas:

Housing area	27.03 hectares
Employment area	13.13 hectares
Open space area	8.34 hectares
Retail area	0.65 hectares
Potential school site	1.40 hectares
Cummersdale Grange Farm	0.48 hectares
<b>Total Site area</b>	<b>51.03 hectares</b>

#### *Housing Development*

15.2.2.4 The net housing area is shown shaded beige on Plan No. CC/MortonEA/4.1. It covers 21.7 hectares, on which 785 dwellings will be developed at an average density of 36.2 dwellings per hectare. The buildings will have a maximum height of three storeys and will include provision for an average of 1.5 parking spaces per dwelling. 55 affordable housing units will be included in the housing development.

15.2.2.5 Design Guidelines for the design and layout of the housing area, including proposals for the use of materials and detailing to respect the local and regional context of the Proposed Development are included in the Environmental Statement

#### *Employment Development*

15.2.2.6 The Employment area is located in the western part of the Site and covers 13 hectares. It will be split into six Business Zones, an Office Zone, a Warehousing Zone and a General Industrial Zone, as shown on Plan No. CC/MortonEA/4.1.

15.2.2.7 The Office Zone is in the most prominent location, at the junction of Peter Lane and Wigton Road. This Zone will involve the development of high quality buildings and includes the creation of a landscaped, linear water body fronting onto Peter Lane, presenting an attractive frontage on this important approach to the city.

15.2.2.8 The Business Zones is located on the more prominent parts of the employment site, adjacent to Wigton Road, Peter Lane and the new housing area. These Zones will involve good quality buildings with a high standard of internal landscaping.

15.2.2.9 The General Industrial and Warehousing Zones will be located in the central northern part of the employment site, away from Wigton Road, Peter Lane and the housing development to the east.

15.2.2.10 Substantial planting is proposed around the perimeter of the employment area, to screen the development from Peter Lane, Wigton Road, properties to the north and west, the housing development to the east and from longer distance views to the south and west.



At least two public areas will be provided, to allow for bus stops, information points and food kiosks. A number of public landscaped areas will also be provided, including a large wetland area around Fairy Beck between Business Zones 1 & 2.

- 15.2.2.11 Design Guidelines for the design and layout of the employment area are also included in the Environmental Statement

#### *Landscape and Open Space*

- 15.2.2.12 The Proposed Development includes 8.3 hectares of public open space within the northern part of the Site. A central landscape feature comprising two ponds, wetland, grassland and a circle of trees is proposed, together with a sports pitch and a substantial area of parkland and woodland. Planting will be carried out around the perimeter of the open space area, to help screen longer distance views of the built development and to soften the existing hard urban edge created by the existing Morton Estate.
- 15.2.2.13 The open space area will result in an attractive parkland, which will consist of a mosaic of natural vegetation, managed to accommodate informal recreation and cycle/footpaths, together with areas of amenity grassland and a sports pitch to provide for more formal, organised activities.
- 15.2.2.14 Other areas of open space are incorporated into the housing and employment developments. A corridor at least 20 metres wide will be retained along Fairy Beck and a similar corridor at least 15 metres wide along the smaller stream running through the south eastern part of the Site. The majority of the hedges will be retained and managed to improve their nature conservation value. It is also proposed to improve a wedge of land lying north of the Site, by de-culverting Fairy Beck, providing cyclepaths and footpaths and carrying out landscape planting.

#### *Transport Framework*

- 15.2.2.15 Four road access points to the Site are proposed, from Dalston Road to the northern housing area; from Peter Lane to the south eastern housing area; from Peter Lane to the south western housing area; and a roundabout junction from Peter Lane to the employment area. A roundabout will be constructed at the Dalston Road/Peter Lane junction in 2006.
- 15.2.2.16 A spine road is proposed through the Site, linking the four accesses into the Site, to enable movement by car and bus from the housing area to the employment and retail sites and to Morton School. This road has been located so that it can be extended from the employment area into the Retail Site. The spine road will have a combined cycle and footpath on one side and a footpath on the other side, with specimen trees planted along the edge of the road to create an avenue feature through the Site.
- 15.2.2.17 The proposals for cyclepaths and footpaths within and in the vicinity of the Site include:
- A footpath/cycleway on the eastern side of Wigton Road, from Westrigg Road to Peter Lane.
  - A footpath/cycleway through the wedge of open space north of the Site, along Dalston Road and then through the Site to Peter Lane.
  - A cycle/footpath along Peter Lane, located within the perimeter landscape planting along the southern Site boundary.

- Footpaths along Fairy Beck and along the minor stream running through the south eastern part of the Site.
- Footpaths and a cyclepath within the main open space area, to link with the Morton Estate and the Retail Site.

### *Foul and Surface Water Infrastructure*

- 15.2.2.18 A new foul water pumping station will be provided in the far north eastern corner of the Site, to serve the whole of the Morton Allocation lying east of Wigton Road. A new fresh water supply, sufficient to serve the whole of the Morton Allocation, has been established for the Current Crowther Homes Site, so no further major fresh water infrastructure is required.
- 15.2.2.19 A strategic surface water drainage solution is proposed for the whole of the Morton Allocation lying east of Wigton Road. Two surface water attenuation ponds are proposed, to accommodate surface water draining from the Proposed Development, prior to its controlled discharge into Fairy Beck.
- 15.2.2.20 It is proposed to de-culvert a 700 metre length of Fairy Beck, from the point where it flows into a culvert in the northern part of the housing area, to where it meets Dalston Road. Returning the Beck to an open watercourse will remove a physical constraint on the flow of water along the Beck, improve the landscape of the Site and provide an opportunity to increase the biodiversity of the area.

### **15.2.3. Phasing of the Proposed Development**

- 15.2.3.1 The Morton Allocation is divided into the following ten development sites:

Site	Location
Site 1	The Current Crowther Homes site
Site 2	The McAlpine Homes site
Site 3a*	Housing land in the north of the Site (northern section)
Site 3b*	Housing land in the north of the Site (southern section)
Site 4a*	Housing land in the south of the Site (northern section)
Site 4b*	Housing land in the south of the Site (southern section)
Site 5*	Housing land east of the employment site
Site 6*	The employment site
Site 7	Retail Site - the neighbourhood foodstore
Site 8	Retail Site - the park and ride facility

\*These sites form part of the Proposed Development

- 15.2.3.2 The Anticipated Development Programme for the whole of the Morton Allocation is summarised in Table 4.8.1. This Programme is based on a start date of January 2004 for the housing and employment developments. The neighbourhood foodstore is expected to be developed around 2010 and the park and ride to be operational by 2006. A build rate of approximately 25 dwellings per year is anticipated on each of the sites and this is expected to increase to around 36 houses per year as the number of housing sites being developed reduces. It is expected that the employment site will be developed progressively over a period of around 13 years.

## 15.3. ENVIRONMENTAL ISSUES

### 15.3.1. Transport

- 15.3.1.1 A detailed transport assessment has been carried out by independent transport specialists, RPS. The assessment takes full account of the cumulative impact of traffic from the overall development of the Morton Allocation (including the Retail Site, the Current Crowther Homes site and the McAlpine Homes site). It also takes account of the development of the Carlisle Northern Development Route (CNDR), which is planned to be completed by 2006.
- 15.3.1.2 The assessment considers current national and local transport policy, in particular the requirement for new development to be conveniently accessible by a range of transport modes, including public transport.
- 15.3.1.3 A baseline study of existing accessibility to the Site for public transport users, pedestrians and cyclists has been carried out, which shows that the Site already has a well developed network of local and longer distance bus services. Options for extending these services and providing new services have been considered and discussions held with the local bus operator. Recommendations have been made for improving the network of cycle and footpaths within and in the vicinity of the Site and these have been incorporated into the Proposed Development. It is also proposed to prepare a Travel Plan to promote the use of alternatives to the private car for journeys to and from work by employees.
- 15.3.1.4 A baseline study of existing traffic flows on the local highway network has been carried out, which shows that the highway network in the vicinity of the Site currently operates satisfactorily and that traffic flows are generally within capacity. Traffic predictions for the years 2006 (planned completion date for the CNDR) and 2016 (when the Proposed Development is expected to be completed) have been calculated and an operational assessment of key junctions carried out for those years.
- 15.3.1.5 The operational analysis for 2006 demonstrates that the local highway network would, on the whole, continue to operate satisfactorily during peak periods. A minor improvement to the Dalston Road/Peter Lane junction is recommended and this has been included in the Proposed Development.
- 15.3.1.6 The operational analysis for 2016 indicates that traffic associated with the overall development of the Morton Allocation, including the Proposed Development, would have a material impact on certain sections of the local highway network immediately adjacent to the Site, as summarised below:
- Traffic flows at the junction of Wigton Road and Peter Lane would be approaching capacity. The main requirement for the improvement of this junction arises from the completion of the CNDR in 2006. The CNDR scheme includes the construction of a roundabout at this junction.
  - The provision of a roundabout at the Dalston Road/Peter Lane junction would be required before 2016. This has been included in the Proposed Development, for construction in 2006.

- 15.3.1.7 An analysis of the operation of all of the proposed accesses to the Site has been carried out, which demonstrates that they will all operate satisfactorily in 2016.
- 15.3.1.8 Cumbria County Council has indicated that developer contributions to assist with the County Council's traffic demand management strategy for Carlisle would be required. These have yet to be finalised, but are likely to include contributions to:
- The Wigton Road park and ride facility
  - Bus priority measures and bus stop facilities on Wigton Road
  - Cycle routes and cycle lanes
  - Safer routes to school
  - Air pollution
  - Travel awareness
  - A595 safety proposals
- 15.3.1.9 The transport assessment concludes that the Proposed Development is acceptable from a transport viewpoint.

### 15.3.2. Landscape and Visual Impact

- 15.3.2.1 A detailed landscape and visual impact assessment has been carried out by independent landscape architects, Stephenson Halliday. The assessment considers the visual impact that the Proposed Development may have on views and viewers and how the development may affect the landscape of the area.
- 15.3.2.2 In assessing the **landscape effects**, the effects on the Site have been considered, as well as the effects on the landscape character and sensitivity to change of the surrounding areas. The **visual effects** of the Proposed Development have been assessed by determining the area from which the development will be visible (the zone of visual influence or ZVI). The location of sensitive receptors within this zone have been identified and the severity and significance of visual effects on these receptors resulting from the Proposed Development are described and illustrated by the use of plans and photographs.
- 15.3.2.3 The extent of the ZVI has been determined by a combination of desktop study and site survey work, to verify the areas from which the development will be visible within a radius of 2 kilometres from the Site boundary.
- 15.3.2.4 The effects on the **landscape** can be broadly summarised as follows:

#### *Positive effects*

- Increased visual interest and variation across the Site compared with the existing bland, featureless agricultural landscape, especially within the proposed open space network.
- Improvement in visual and nature conservation interest within Fairy Beck corridor, including the opportunity to open up the culverted section of Fairy Beck within and north of the Site.
- Construction of four water bodies for drainage and amenity purposes, adding interest and variety within the corridor of Fairy Beck.

- Significant increase in the length of rights of way and open space available to the public for informal and formal recreational activities in this part of Carlisle.

*Negative effects*

- Loss of open, agricultural land and tranquil rural character.
- Extension of the city into countryside.
- Loss of a few short lengths of existing hedges.

15.3.2.5 The visual effects of the development can be broadly summarised as follows:

*Positive effects*

- Opportunity to improve the quality of the existing urban edge of Carlisle formed by the Morton Estate and reduce its visibility within the surrounding countryside.
- Establishment of a new, softer edge to the city, to form a satisfactory transition between the urban area and the wider rural landscape.
- Utilisation of a discrete, contained area of urban fringe farmland for development where the visual effect on the wider countryside is limited to a large extent by landform and vegetation.

*Negative effects*

- Some loss of visual amenity for properties on the boundaries of the Site and within the immediate vicinity of the Site.
- Some visual intrusion of built form for users of the roads adjoining the Site, although this is reduced by the proposed planting within and on the boundaries of the Site.

15.3.2.6 The landscape and visual assessment concludes that, in landscape and visual terms, the Proposed Development represents a logical and practical extension to Carlisle's urban area. As an urban extension, it inevitably results in the loss of rural qualities over the area of the Site. However, the situation and present condition of the Site, together with its surrounding landform and woodland cover, will result in the formation of a more satisfactory relationship between the urban area of Carlisle and the open countryside than at present. Considerable benefits will also result from the Proposed Development, which will mitigate to a large extent the adverse effects, all of which have been identified and described by the assessment.

15.3.2.7 The assessment of the landscape and visual effects of the Proposed Development has prompted and informed the preparation of some Design Guidelines, which are included in the Environmental Statement (Chapter 9, Appendix B). These include generic guidelines for the design and layout of the residential and employment areas, with consideration of materials and detailing to respect the local and regional context of the Proposed Development.

### 15.3.3. Ecology

15.3.3.1 A detailed ecological assessment of the Site and the Retail Site has been carried out by independent ecological consultant, Jan Wilkinson. The assessment describes the baseline ecological status of the Site, the Retail Site and its surroundings; assesses the

potential ecological impacts of the Proposed Development (both positive and negative) and proposes appropriate mitigation and enhancement measures.

- 15.3.3.2 No sites with international, national or local nature conservation designations are present within or adjacent to the Site. Fairy Beck is a tributary of the River Caldew, which forms part of the River Eden and tributaries Site of Special Scientific Interest (SSSI) and which is a candidate Special Area of Conservation (cSAC). There are no known records of statutorily protected species using the Site and none were identified during the field surveys.
- 15.3.3.3 The Site is currently intensively managed agricultural land of limited nature conservation interest. The only features of significant ecological value are the hedgerows and watercourses. The Proposed Development provides for the substantial retention of these existing habitats. It also presents significant opportunities to enhance the retained features and to provide complementary additional areas of habitat as part of the open space and landscaping scheme for the Site.
- 15.3.3.4 The retention and enhancement of wildlife habitats, if carried out sensitively and appropriately, will more than compensate for the minor ecological impacts predicted and will enhance the potential of the Site to support a range of wildlife associated with watercourses, hedgerows and related habitats.
- 15.3.3.5 The development of a sustainable drainage scheme for the Site will further increase the opportunities for ecological enhancement, particularly with respect to the proposals to create surface water attenuation ponds and to de-culvert almost 700 metres of Fairy Beck.
- 15.3.3.6 The potential for the Proposed Development to result in adverse ecological effects on the designated sites downstream, namely the Rivers Caldew and Eden, has been considered. Provided that appropriate pollution prevention and surface water run-off attenuation measures are satisfactorily implemented, it is not anticipated that there would be any significant adverse effects on Fairy Beck or the downstream watercourses.

#### **15.3.4. Water Quality and Drainage**

- 15.3.4.1 A water quality and drainage assessment has been carried out, by independent drainage specialists Parkman, to assess the impact of the Proposed Development and the Retail Site on surface and groundwater.
- 15.3.4.2 Currently, land drainage of the Site is achieved by a series of field ditches running across the Site and outfalling to Fairy Beck, which has recently been upgraded to main river status by the Environment Agency. Part of Fairy Beck is culverted at the northeast corner of the Site, between the existing Morton Estate and Dalston Road. Fairy Beck eventually outfalls to the River Caldew, which lies to the east of Dalston Road.
- 15.3.4.3 The assessment identified that increased surface water run-off from the impermeable areas within the Proposed Development has the potential to add to the existing flooding problems along the River Caldew. In order to prevent such problems, it is proposed to limit surface water run-off to the existing greenfield site run-off levels, which are estimated at 10 litres/second/hectare. In order to maintain this value, it is proposed to

provide two surface water attenuation ponds, which will accommodate surface water draining from the Site, prior to its controlled discharge into Fairy Beck.

- 15.3.4.4 The assessment also recommends the use of sustainable systems, such as depressions and ditches, to attenuate surface water flows and reduce the required storage volume of the attenuation ponds. The practicality of such systems will be assessed at the detailed design stage, but suitable areas of open space have been included in the development proposals to allow for the use of such systems.
- 15.3.4.5 A new fresh water supply, sufficient to serve the whole of the Morton Allocation, has been established for the Current Crowther Homes Site and no further major infrastructure is required. Foul water drainage will be provided by an adopted foul sewer system, which will discharge to a new pumping station located in the northeast corner of the Site.
- 15.3.4.6 In order to prevent deterioration of the water quality draining to Fairy Beck, petrol interceptors will be situated at individual sites, where necessary, such as car parks, loading bays etc, to treat flows from these sites before entering the public surface water system. Highway run-off drainage will be collected by deep sealed trapped gulleys. An emergency cut-off arrangement at the attenuation pond outlets will be provided for protection against spillages.
- 15.3.4.7 It is proposed to de-culvert a 700 metre length of Fairy Beck, from the point where it flows into the culvert in the northern part of the housing area, to the point where it meets Dalston Road opposite the cemetery. Returning the Beck to an open watercourse will remove a physical constraint on the flow of water along the Beck and is supported by the Environment Agency. A new length of watercourse will also improve the landscape of the Site and provide an opportunity to increase the biodiversity of the area.
- 15.3.4.8 The assessment concludes that, with all of these mitigation measures in place, there will be no adverse impact on surface water, including Fairy Beck and the River Caldew, or groundwater as a result of the Proposed Development.

### **15.3.5. Agriculture**

- 15.3.5.1 An agricultural assessment has been carried out by independent specialists Reading Agricultural Consultants, to assess the impact of the Proposed Development on the agricultural interests of land, soil and the farming business that would be affected.
- 15.3.5.2 The assessment shows that 37 hectares of the Site is lower quality (subgrade 3b) agricultural land and 11 hectares is higher quality (subgrade 3a), which is the lowest grade of 'best and most versatile' agricultural land. The most valuable component of the soil resource on the Site is the slightly stony, medium loamy topsoil.
- 15.3.5.3 The Proposed Development will result in the permanent loss of about 48 hectares of agricultural land, 11 hectares of which is classed as 'best and most versatile'. The assessment concludes that this loss is of slight significance. Careful soil handling procedures and the beneficial re-use of topsoil is recommended, to avoid potential adverse impacts on soil.

- 15.3.5.4 The Site is farmed by one tenant, whose dairy herd was slaughtered in March 2001 following an outbreak of foot and mouth disease. It has not been re-stocked since. The farmer would be compensated on the basis of the cessation of his farming business as a result of the development of the Site.

#### **15.3.6. Archaeology**

- 15.3.6.1 An archaeological assessment review of the Site and the Retail Site has been carried out by independent archaeological consultants Headland Archaeology. This involved a review of three previous archaeological studies within or close to the Site, re-examination of relevant archives, a walk over survey and consultation with Cumbria County Council's Archaeology Service.
- 15.3.6.2 There are no known archaeological features within the Site. A Roman Road, approaching Carlisle along the line of Wigton Road, may pass through the far north western corner of the Site, but there is no evidence of this in the field. The available information indicates that the potential for significant archaeological features being present within the Site is low.
- 15.3.6.3 It is recommended that, following the grant of outline planning permission, and prior to the submission of an application for the approval of details, the Site is subject to an archaeological field evaluation. This will involve the excavation of a series of trial trenches. Further mitigation may be required, depending on the results of such an evaluation.

#### **15.4. ALTERNATIVE SITES**

- 15.4.1 The Site forms the major part of the Morton Allocation, which was allocated in the Carlisle District Local Plan following a comprehensive site selection process, during which alternative sites were considered. The City Council has also carried out a comprehensive Urban Capacity Study, which has considered the potential for development within Carlisle District on brownfield sites. No alternatives that are environmentally more acceptable than the housing and employment allocations at Morton have been identified. The mixed-use urban extension proposed for the Morton Allocation will achieve a development in accordance with the Government's objectives for sustainable development.
- 15.4.2 The Proposed Development, as shown on Plan No. CC/MortonEA/4.1, is the result of a number of stages where alternative proposals for the design and layout of the Site have been considered. These stages included the Local Plan process, the Morton Development Brief and the Morton Masterplan. The EIA gave further consideration to the development proposals.
- 15.4.3 Each specialist consultant working on the EIA carried out a preliminary assessment of the Masterplan proposals and considered alternatives or additional measures that could be incorporated into the Proposed Development to further reduce its environmental impact. The measures recommended from each of the preliminary assessments were considered during the early stages of the EIA process and, where appropriate, incorporated into the Proposed Development.





	The Site
	Proposed spine road
	Proposed housing areas
	Proposed employment area: Office Use
	Proposed employment area: Business Use
	Proposed employment area: Warehouse/Industrial Use
	Proposed employment area: General Industrial Use
	Proposed public spaces for bus stops, information points and kiosks
	Land set aside as possible future site for primary school
	Proposed combined cycle and footpath routes
	Proposed footpaths / existing bridleway retained
	Indicative layout of Park and Ride facility providing 450 car parking spaces
	Indicative layout of Retail site
	Indicative extension of spine road and combined cycle and footpath route through Retail Site
	Proposed attenuation ponds / ponds excavated on Fairy Beck
	Existing watercourses
	Removal of culvert and restoration of Fairy Beck river corridor.
	Structure planting to spine road and other routes
	Landscape framework within employment areas
	Woodland structure planting
	Existing recent woodland planting retained
	Existing hedges retained / removed
	Proposed areas of marginal vegetation within Fairy Beck corridor

**Site** Morton, Carlisle

**Project** Environmental Statement for Housing, Employment and Open Space Development

**Title** Proposed Development

**Plan No.** CC/MortonEA/4.1

**Scale** 1:5,000

**Date** October 2002

**SMITHS GORE**