Appendix 1: Acknowledgements

Project Advisory Group

East Devon District Council

- John Maidment, Policy and Conservation Manager. (Project Manager)
- Charlie Plowden, Countryside Manager

Exeter City Council

- John Thompson, Forward Planning Manager
- Martin Davies, Countryside Projects Officer
- Jill Day, Forward Planning Officer

Teignbridge District Council

- Tony Page, Head of Policy and Heritage

Natural England

- Matt Low, Conservation Officer
- Amanda Newsome, Conservation Officer – East Devon

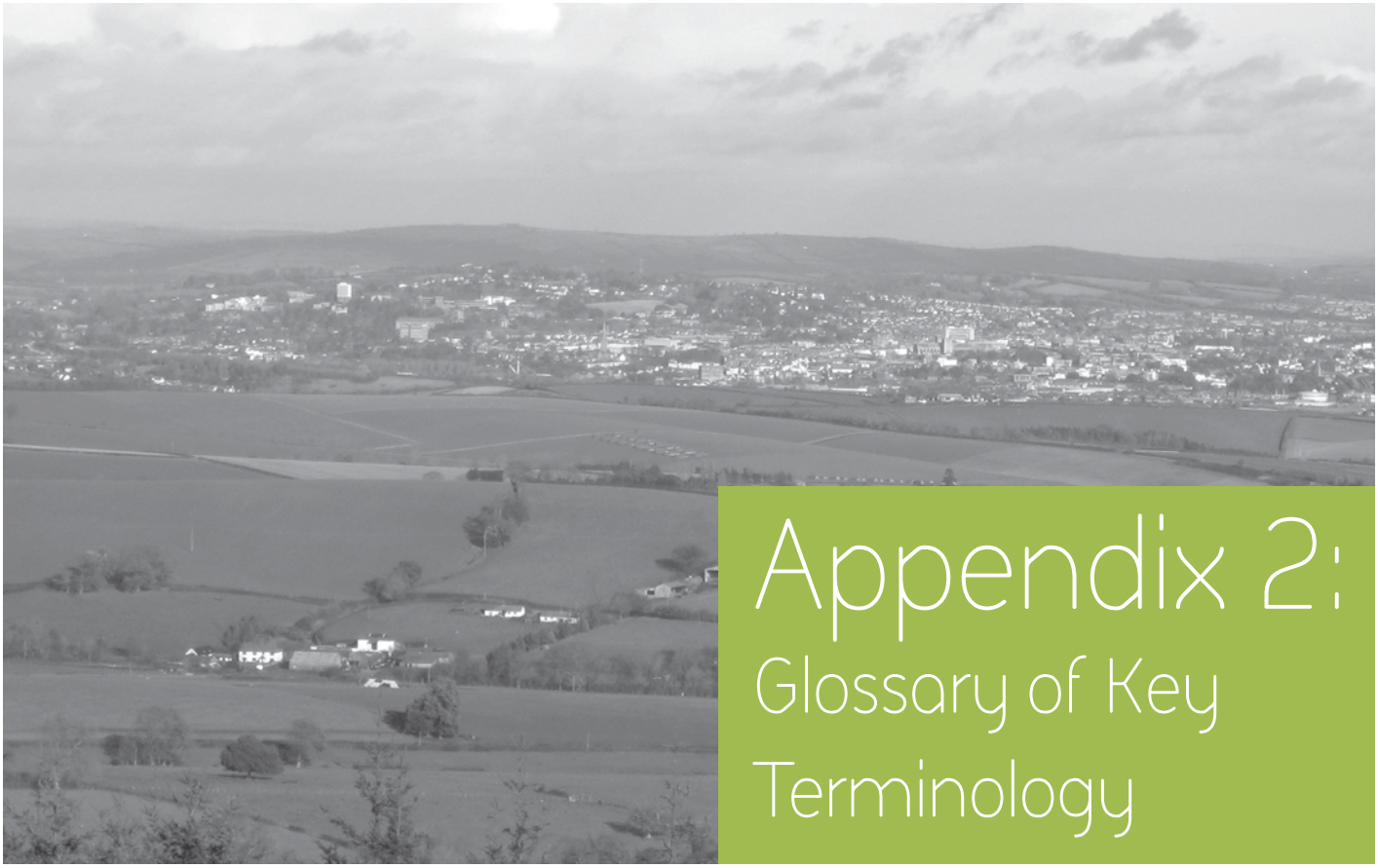
Stakeholders and Consultees

LDA Design also thanks Catherine Jowitt, Adrian Marsden, Julian Lee and David Sercombe for the provision of geographic data.

Thanks are also extended to various other technical experts consulted throughout the project including Neil Blackmore, Mike Williams, Steve Church, Bill Horner, Naomi Brookes, Craig Dixon and other Devon County Council officers, as well as all those who attended a GI stakeholder workshop in February 2008.

Project Development and Delivery

LDA Design Consulting LLP



Appendix 2: Glossary of Key Terminology

Green Infrastructure

PPS 12 defines GI as a network of green space both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities.

It is acknowledged that GI means many things to many people and various definitions and approaches to GI planning exist throughout the country. However, there is a significant amount of common ground within the available approaches, notably that GI involves natural and managed areas in both urban and rural settings, is about the strategic connection of open areas, and that it should provide multiple benefits for people and wildlife.

GI Planning is a strategic and collaborative approach to regeneration, conservation and land management that addresses the environmental, social and economic aspects of new development and change in both urban and rural areas.

Core Study Area

The core study area has been defined by the Advisory Group, encompassing Exeter City and the Exeter Fringes. Countryside to east of Exeter has also been included so that the GI Study can take into account proposed development in and around Exeter Airport and the proposed Cranbrook New Community.

Wider Area of Search

The wider area of search extends up to 10km from the Core Study Area within which strategic greenspaces that may contribute to the wider GI Strategic Network are identified.

Green Infrastructure Spatial Framework

Proposed framework that seeks to recognise and enhance the physical identity of Exeter and address how the city, surrounding settlements and new developments relate to the landscape. It is broader than the Biodiversity Network, Sustainable Movement Network and GI Projects, but encompass elements of these proposals.

Biodiversity Network

Broad proposal to protect and enhance areas of existing habitat and create new areas of habitat. The initiative aims to improve habitat connectivity and enhance the quality and quantity of biodiversity within the core study area.

Sustainable Movement Network

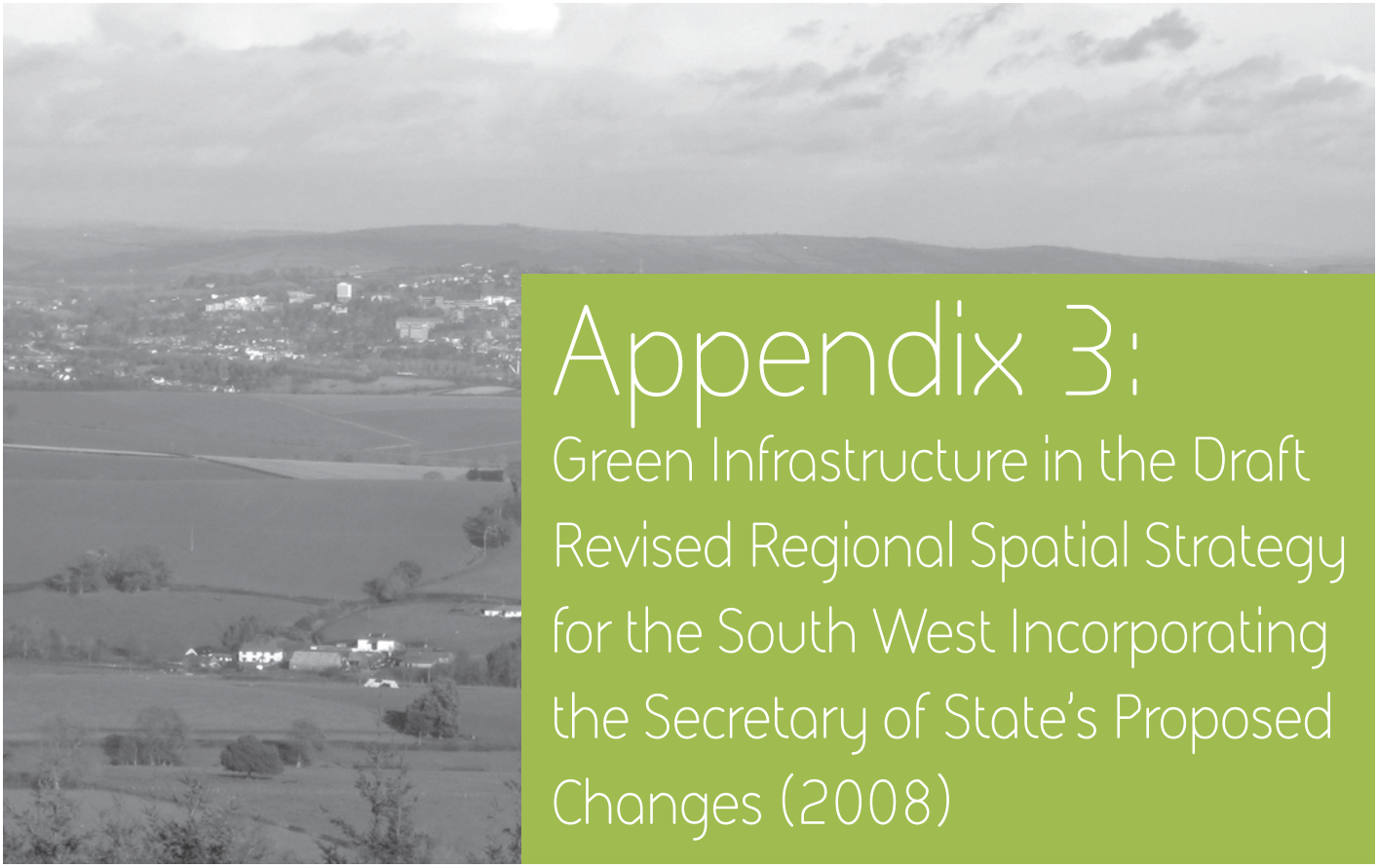
Proposal to create a hierarchy of indicative routes that once developed to a finer resolution and delivered will give communities the confidence and incentive to undertake journeys, whether for recreation, health or practical reasons, without their cars.

Green Infrastructure Projects

Proposed individual projects that seek to deliver multi-functional benefit across a wide range of agendas such as open space improvements, habitat enhancement, community action, education and interpretation. They often encompass elements of the spatial networks described above.

Green Infrastructure Strategic Network

Priority areas for investment and delivery identified as areas with a high concentration of GI assets and opportunities. Two levels of the GI Strategic Network are identified; the Sub-Regional GI Network, which represents a higher priority for funding, and the Local GI Network, which represents a lower priority for funding, but remains an important focus for GI enhancement and provision



Appendix 3:

Green Infrastructure in the Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changes (2008)

Section 3.6: Delivering Development in Accessible Places, Improving Accessibility and Providing Key Infrastructure to Realise the Spatial Strategy

Development Policy D Infrastructure

"The planning and delivery of development should ensure efficient and effective use of existing infrastructure and should provide for the delivery of new or improved transport, education, health, culture, sport and recreation and green infrastructure in step with development. Central Government, local authorities, regional bodies, service providers and developers will work in partnership to identify regionally and sub-regionally significant infrastructure requirements and solutions, including funding".

Section 3.7: Creating Sustainable High Quality Living and Working Environments

Development Policy F Planning and delivery of major development

"Major developments, including urban extensions and regeneration, should be planned on a comprehensive and integrated basis to ensure that they contribute to the delivery of sustainable communities and a high quality of life by providing for:

- high standards of design and access and the lowest practicable levels of energy and car use;
- public transport, cultural, leisure, retail, health care, education and other services and facilities commensurate with the needs of the

expected population of the area and delivered in step with growth of that population;

- sustainable transport links between urban extensions and city/town centres, with an emphasis on public transport, cycling and walking;
- amenity space and green infrastructure that meets community needs and supports improved biodiversity; and
- a range of housing types and tenures".

Section 6.2: Providing Essential Services and Community Infrastructure

A section of the Draft RSS deals specifically with green infrastructure. It states that;

"Careful management will be required to ensure that development contributes to, rather than detracts from the quality of life in urban areas. Green Infrastructure (GI) is an important of ensuring development provides positive benefits for the region. GI consists of strategic networks of accessible, multifunctional sites (including parks, woodland, informal open spaces, nature reserves and historic sites) as well as linkages (such as river corridors and floodplains, wildlife corridors and greenways). These contribute to people's well being, and together comprise a coherent managed resource responsive to evolving conditions.

In order to achieve a distinctive approach for the South West, it will be important to plan GI around existing environmental and cultural characteristics. GI networks should consist of a series of features (both existing and new), appropriate at various spatial scales, preferably with links connecting smaller, more local sites with larger, more strategic ones. Networks can provide links between town and country, between different parts of an urban area, and between existing and new development. Linear GI (greenways and 'blue infrastructure' such as rivers, streams, canals etc) is integral to securing connectivity for wildlife and accessibility for people (though it may not always be appropriate to combine these two roles).

Continual improvement of GI must be based on a sound understanding of existing assets (including location, size, functions, accessibility, user groups and intensity of use). PPG17 requires adequate provision of open space, sport and recreation facilities to be provided and maintained. This may be most effectively understood at a strategic or sub-regional level, and there are significant benefits to partnership working over GI between authorities. Identification of 'areas of opportunity' or 'GI demand' will be necessary in order to provide clear objectives and priorities. These should then be mapped and disseminated such that they can be proactively incorporated within spatial strategies and development proposals at the earliest possible stage. Considerable work has already been undertaken in the identification of areas of opportunity and targets (for example South West Regional Nature-Map and Rebuilding Biodiversity Initiative, Biodiversity Action Plans, Catchment Flood Management Plans and Forest Plans) should be drawn upon.

The Habitats Regulations Assessment of the RSS identifies a number of international nature conservation sites which are particularly vulnerable to harm from recreational activities as a result of their proximity to urban areas or their attractiveness for recreation to local residents or tourists.

The relevant authorities will need to work jointly and with Natural England to secure and implement appropriate and deliverable measures to avoid or mitigate adverse effects from recreation at these sites, such as the use of planning obligations to secure provision of alternative greenspace or improve habitat management. Providing new areas of appropriate greenspace (as set out in Policy GI1) is likely to mitigate potential adverse effects in many locations. However, management of activities and access on these sites may also be required. If following investigation of mitigation options by local authorities and partners, provision of appropriate greenspace and/or management measures is not possible, restrictions may need to be put in place on the type, scale and/or location of development (e.g. through implementation of 'no development' buffer zones) within LDDs in proximity to these sites. Particular sites at risk from recreational pressure are:

- *Avon Valley SPA and Ramsar site*
- *Chesil and the Fleet SPA/Ramsar site*
- *Dartmoor SAC*
- *East Devon Pebblehead Heath SAC and East Devon Heaths SPA*
- *Exe Estuary SPA and Ramsar site*
- *Fal and Helford SAC*
- *Isle of Portland to Studland Cliffs SAC*
- *Poole Harbour SPA and Ramsar*
- *Salisbury Plain SAC*
- *Severn Estuary pSAC, SPA and Ramsar site*
- *The New Forest SAC".*

Policy GI 1 Green Infrastructure

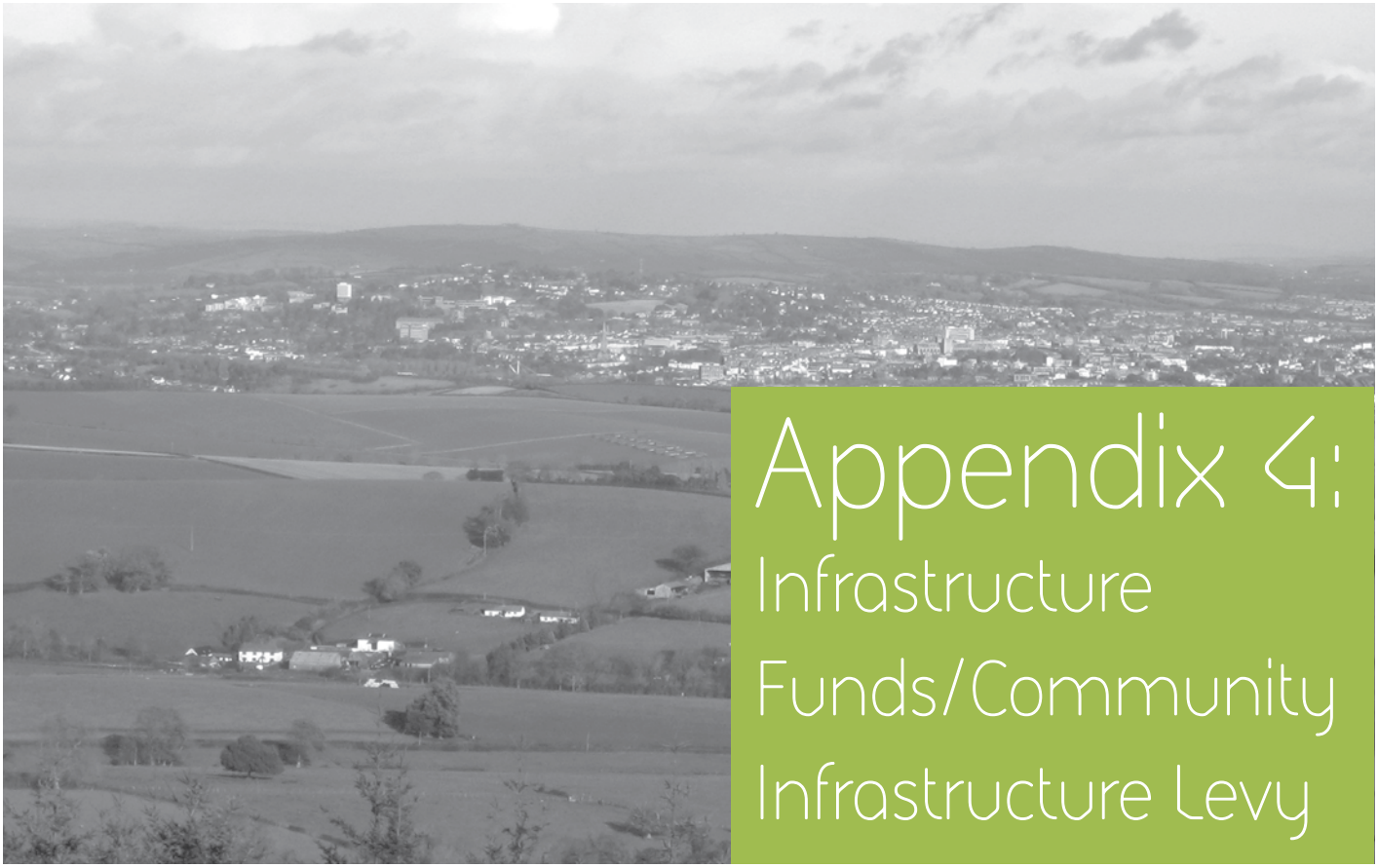
"Development of networks of Green Infrastructure (GI) will be required to enhance quality of life in the region and support the successful accommodation of change. GI networks will comprise multifunctional, accessible, connected assets, planned around existing environmental characteristics.

Plans, strategies, proposals and schemes should aim to deliver wider spatial outcomes that incorporate environmental and socio-economic benefits by;

Conserving and managing existing GI;
Creating new GI; and
Enhancing its functionality, quality and connectivity.

GI is required as an integral part of development, and should include the identification, development and management of new areas of open space, not just more intensive use of existing areas of open space. Local Authorities and partners will:

- *Draw upon existing expertise and initiatives to take forward GI planning and identify priorities and partnerships for GI;*
- *Incorporate GI policies setting out broad locations for GI appropriate to the extent and distribution of development proposed, coordinated across administrative boundaries as appropriate;*
- *Integrate proposals to improve GI in the delivery of new developments, particularly through area based regeneration initiatives and major development proposals;*
- *Ensure that a key aim of green infrastructure is the maintenance and improvement of biodiversity;*
- *Protect the integrity of sites of international importance and provide new areas of appropriate greenspace where development would otherwise cause unacceptable recreational pressure on sites of international ecological importance;*
- *Maximise the role of GI in mitigating and adapting to climate change; and*
- *Deliver a GI Plan with a delivery programme to support GI policies".*



Appendix 4: Infrastructure Funds/Community Infrastructure Levy

Refer to:

- Figure 8: Funding Arrangements – Planning Gain Supplement (PGS) and Section 106 (inserted into text – see page 72)

The Regional Development Agencies and Regional Assemblies of South East England and South West England have proposed the establishment of a Regional Infrastructure Fund (RIF) for each region[8].

A RIF is a rolling fund operated at the regional level and for which regional partners are held accountable. Its primary purpose is to facilitate the timely provision of regionally or sub-regionally significant infrastructure that supports the delivery of planned growth as set out in the Regional Spatial Strategy and/or the Regional Economic Strategy.

The RIF is a mechanism through which the region can forward fund major infrastructure schemes, in situations where the anticipated public or private funding for the scheme will not be available in full at the time when the infrastructure is needed to support planned growth or development. The cost of the capital investment would then be recovered from

[8] South West Regional Assembly, South West of England Regional Development Agency, South East England Development Agency and South East England Regional Assembly, Regional Infrastructure Funds – A Prospectus. 2006

pre-determined public and/or private funding streams as they become available. The RIF also provides an effective mechanism for progressing projects from outline proposals to regionally prioritised schemes with a robust financial, economic and business case.

It is relevant to note that GI forms a key part of the definition of Infrastructure in the RIF Prospectus. It states that GI comprises outdoor recreation and sports facilities, parks, gardens, allotments, pathways, natural and historic sites, water spaces and accessible countryside, and as such is aligned to the definition of GI established in this strategy.

There is an acknowledged need to improve the funding and delivery of strategic infrastructure, including GI. A forward-funding mechanism operating at the regional scale will provide an effective part of the solution for funding GI Projects and initiatives for the following reasons:

- Some infrastructure is regional in its scope; either in terms of its geographical coverage or the fact that it cannot easily be related to individual development proposals as it serves a wider strategic function;
- Some items of infrastructure will be too expensive to deliver through local funding mechanisms (including developer contributions);
- Some large scale development site related infrastructure (e.g. flood defence or transport) will need to be forward funded and the RIF allows for a greater spread of risk across a number of strategic investments, than similar local area based approaches; and
- There is a need to lever in additional private sector contributions towards infrastructure; these can be maximised at the regional level.

An approach will need to be designed to reflect the particular infrastructure needs and priorities of the growth area, as well as specific governance requirements:

- A business planning approach to the identification of infrastructure need, including a thorough assessment of costs, timing, funding streams and responsibilities for delivery of major schemes;
- The existence of identified revenue streams through which the RIF would recoup its up front capital investment. This could be a combination of strategic planning contributions (s106 or CIL), user charges, other private investment, for example the sale of concessions or longer term public funding commitments;
- The identification of appropriate 'banker' arrangements through an accountable body; the status of which (public or private) will be dependent upon the sources of finance employed and the nature of contractual relationships with infrastructure providers Robust and transparent governance arrangements to ensure appropriate levels of public accountability and scrutiny;
- Projects to be considered for the application of RIF monies would need to demonstrate a clear evidence of need and a direct contribution to the delivery of regional growth and development targets as set out in the RSS/RES - this will require the adoption of a 'business planning' approach to infrastructure planning by local planning authorities and their partners; and
- To facilitate the process the 'ringmaster' function would allow for the provision of a wider technical assistance or sub-regional brokerage role.

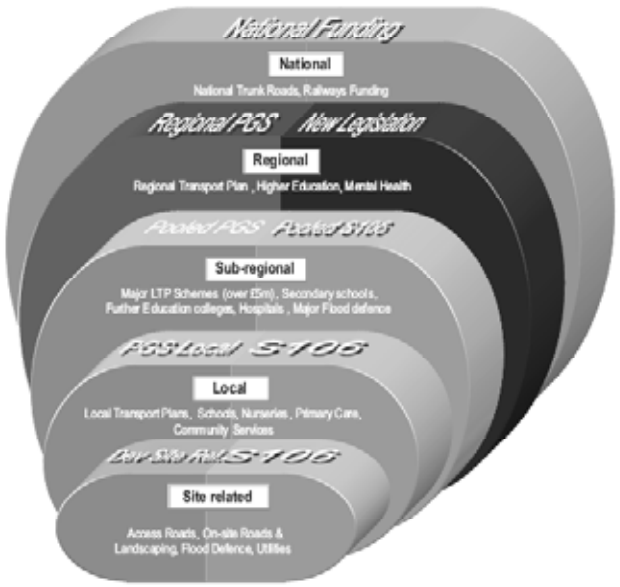


Figure 8: Funding Arrangements – Planning Gain Supplement (PGS) and Section 106.

This diagram sets out how developer contributions would be used for infrastructure funding at local, sub-regional ad regional levels under the current arrangements and vis a vis the introduction of PGS (taken from Regional Infrastructure Funds – A Prospectus)

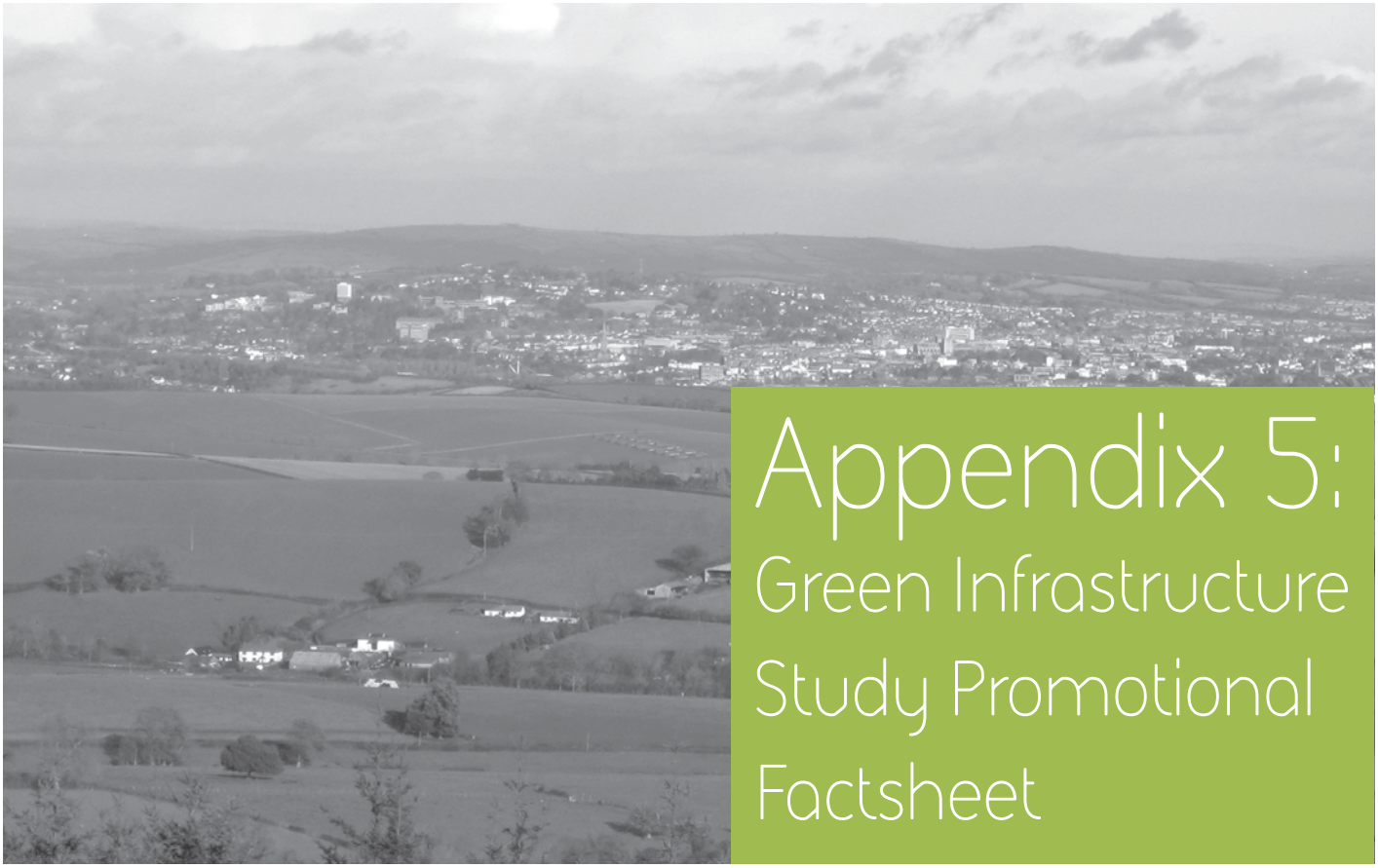
Since the publication of the Prospectus, the Government has confirmed its plans for the Community Infrastructure Levy (CIL) to replace the former Planning Gain Supplement (PGS), the provisions for which are currently part of the Planning Bill.

The Government expects the CIL will establish a better way to increase investment in the vital infrastructure that growing communities need. The Bill allows for regulations to empower local councils to apply a Community Infrastructure Levy on new developments in their areas to support infrastructure delivery. CIL forms part of a wider package of funding for infrastructure to support housing and economic growth. CIL cannot be expected to pay for all of the infrastructure required, but it is expected to make a significant contribution.

Generally, when land is granted permission for development two things happen. Firstly, the development has an impact on the local community, which needs to be mitigated if the development is to be sustainable (in the widest sense). And secondly, the value of the land may rise. The overall purpose of the CIL is to ensure that development contributes fairly to the mitigation of the impact it creates: to ensure that development is delivered, and in a more sustainable way. The fact that the value of the land (or property) typically rises as a result of development means that contributions can be required without removing incentives to develop.

Because CIL aims to ensure that development is delivered in a more sustainable way, the effect of the clauses in the Planning Bill is to require CIL to be spent on infrastructure to support the development of an area. CIL will be a standard charge decided by designated charging authorities and levied by them on new development. For example, the CIL could be levied as a certain amount per dwelling or per square metre of development, following the example of existing 'tariff' schemes introduced by some local planning authorities.

The Government wants CIL funds to unlock development. But if the levy is set too high, it might cause some development to become unviable. Because it is the purpose of CIL to ensure that more development is delivered, the level of CIL must be set to ensure it supports and does not prevent development. In setting charges, charging authorities will therefore need to take account of land value uplifts in their area.



Appendix 5:
Green Infrastructure Study Promotional Factsheet


LDADESIGN
Exeter Area and East Devon New Growth Point Green Infrastructure Study
Creating Special Places
Building on centuries of change Exeter and East Devon and Teignbridge have been identified as Growth Points. As with many other areas in the UK, significant new growth and development is being planned for the city and its rural hinterland.
In recognition of the role that development can have in environmental, social and economic enhancement, East Devon District Council, Exeter City Council, Teignbridge District Council and Natural England have jointly commissioned a Green Infrastructure (GI) Study.
The GI Study will provide a framework to guide sustainable development that will help create places where people will want to live, work, visit and invest, whilst protecting and enhancing those qualities that contribute to the area's local distinctiveness and special identity.
"In developing the Exeter Fringes GI Study, planners and decision makers are making a significant commitment to the environment by taking a proactive approach to its protection and enhancement whilst embracing economic regeneration, growth and sustainable development".
Councillor Pete Edwards, Chairman Exeter and East Devon New Growth Point Steering Board
What is Green Infrastructure?
GI means many things to many people and various definitions and approaches to GI planning exist throughout the country. Despite this, it is acknowledged that there is a significant amount of common ground within the available approaches, notably that GI involves natural and managed areas in both urban and rural settings, is about the strategic connection of open areas, and it should provide multiple benefits for people and wildlife.
Google
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The Vision

The Vision is to achieve a GI Strategic Network that:

- protects and enhances current environmental assets and local identity;
- provides a holistic framework for new sustainable development and regeneration; and
- performs a multitude of life support functions for the benefit of people and wildlife.

In summary, GI will help to create high quality, attractive and functional places that will provide a setting for day-to-day living, enhance the character and diversity of the landscape and protect heritage assets that contribute to the area's unique sense of place and cultural identity. It will enrich the area's wildlife value by addressing the negative impact of habitat loss and fragmentation by promoting habitat enhancement and linkage. GI will also help to connect people to places by linking residents and visitors to leisure and work destinations along a network of safe and clearly defined routes.

In taking forward the Vision, the intention is to place the Exeter and East Devon and Teignbridge New Growth Points at the forefront of strategic GI planning and delivery in the UK.

East Devon District Council
Exeter City Council
Teignbridge District Council
Natural England

December 2008

LDA Design Consulting LLP

East Devon
Exeter City Council
Teignbridge District Council South Devon
Natural England

Appendix 6: Methodology

The GI Study has been undertaken in two phases, as described below:

Phase 1: Baseline Review, Analysis and Interpretation

Stage 1 – Project Inception Meeting, Baseline Review and Vision Document

- Inception Meeting with the Advisory Group to agree the project methodology, identify and agree baseline data and develop the Vision;
- Develop and publish Vision document to summarise the purpose of the study;
- Disseminate Vision document amongst project Advisory Group and Stakeholders in advance of Baseline Review Workshop; and
- Undertake themed baseline data review and fieldwork to ascertain visual and perceptual qualities of the core study area and prepare baseline summary report.

Stage 2 – Baseline Review, Advisory Group Meeting and Workshop and Final Draft Baseline Report

- Advisory Group and Stakeholder Workshop to comment on the baseline summary and develop ideas on GI Study and projects.

Stage 3 - Analysis and Interpretation

- Analysis of GI assets and opportunities and stakeholder comments to identify draft GI Spatial Framework, Biodiversity Network, Sustainable Movement Network and GI Projects.

Phase 2: GI Planning

Stage 4 – Draft Green Infrastructure Strategic Network

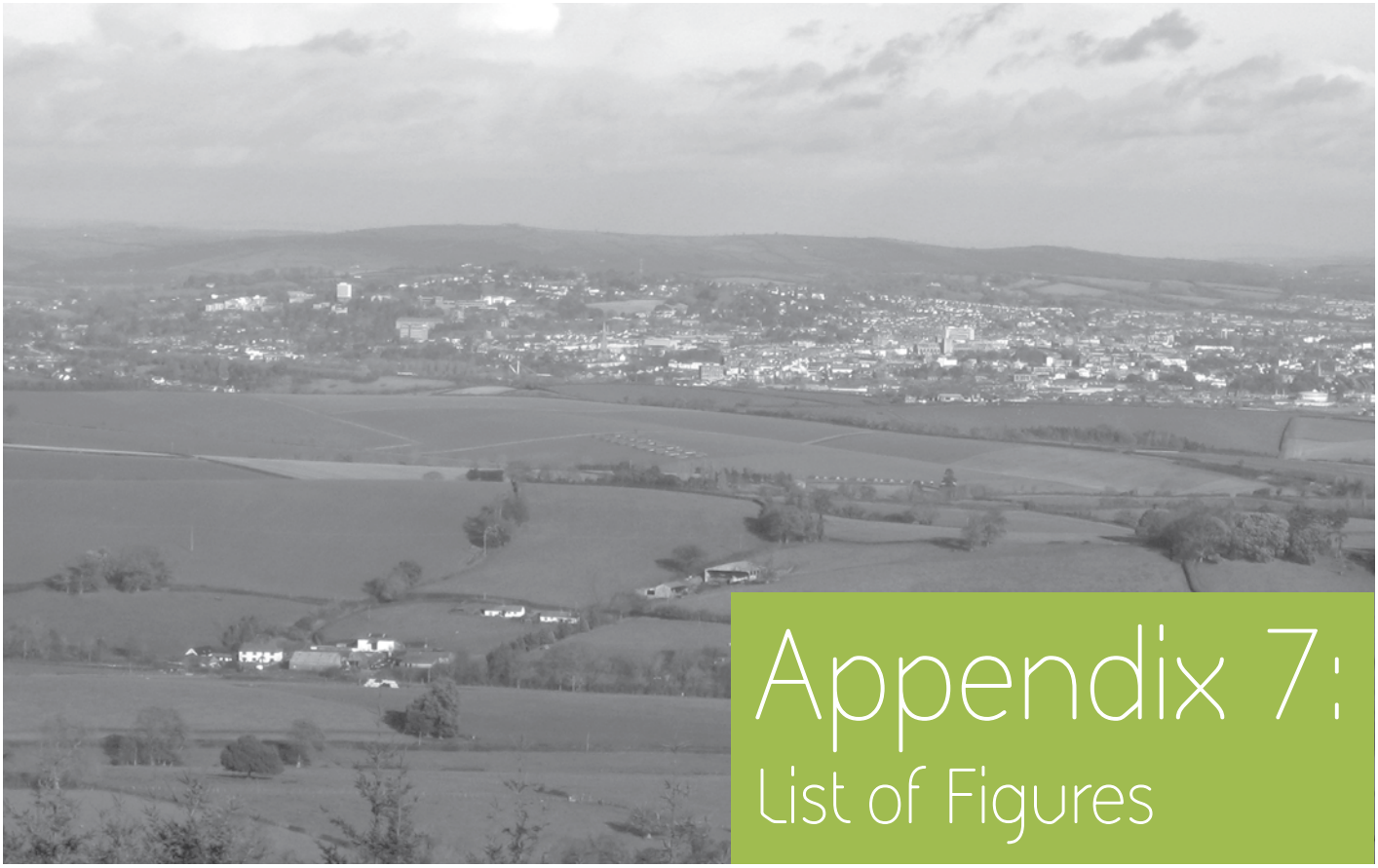
- Establish draft GI Strategic Network by integrating the GI Spatial Framework, Biodiversity Network, Sustainable Movement Network and GI Projects.

Stage 5 – Second Advisory Group Meeting- Review of Proposals

- The second Advisory Group meeting to review the outputs of Stages 3 (Analysis) and Stage 4 (Draft GI Strategic Network); and
- Agree and develop approach to delivery.

Stage 6 – GI Study Final Report

- Final GI Strategic Network plan and report production.

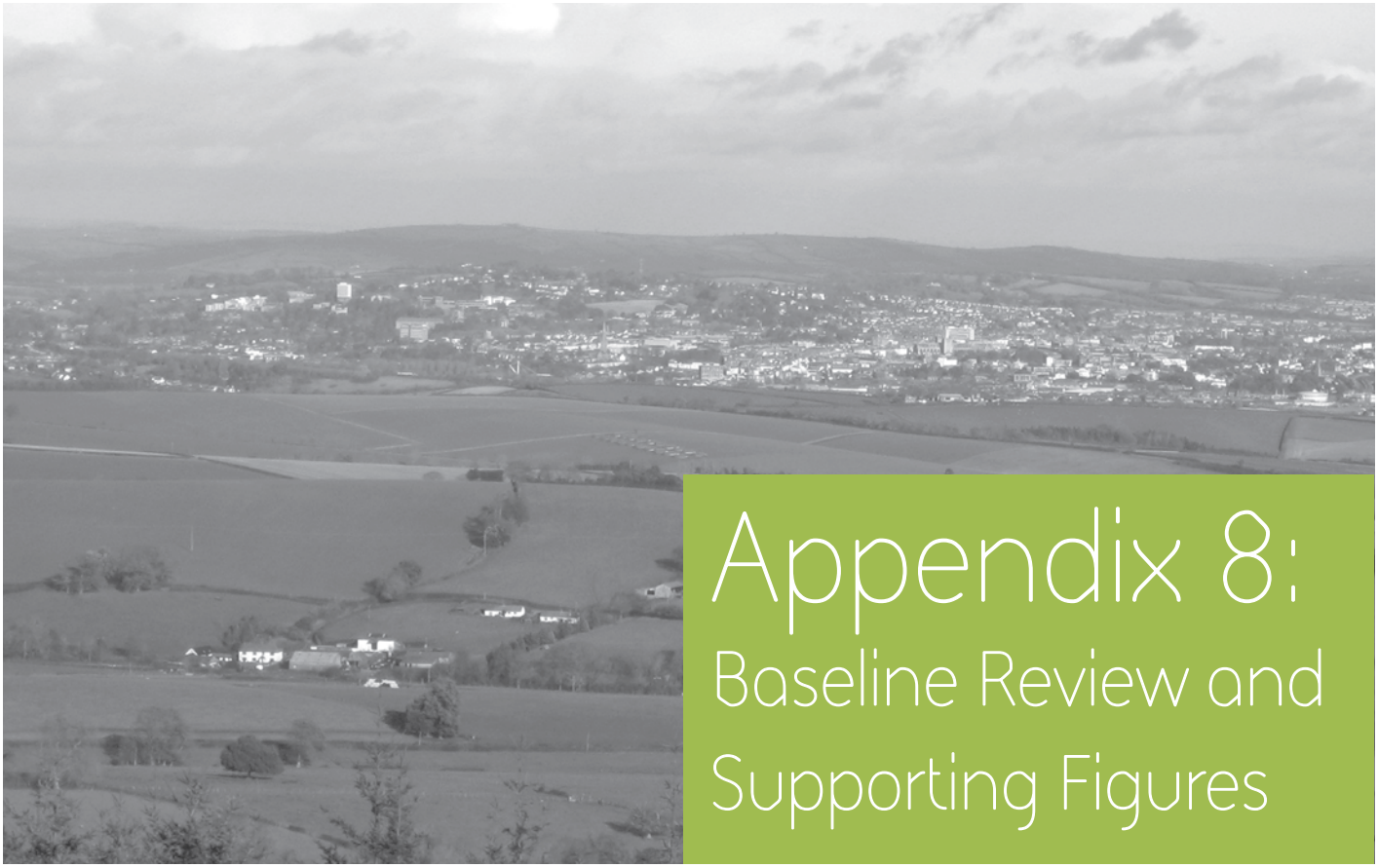


Appendix 7:
List of Figures

Main Report

Appendix 4: Regional Infrastructure Funds/ Community Infrastructure Levy

Appendix 8: Baseline Review



Appendix 8: Baseline Review and Supporting Figures

1.0 Study Area

Refer to:

- Figure 9: Core Study Area
- Figure 10: Wider Area of Search
- Figure 11: Local Authority Boundaries and Principal Settlements
- Figure 12: Aerial Photograph

The core study area has been defined by the Advisory Group, encompassing Exeter City and the Exeter Fringes. Countryside to east of Exeter has also been included so that the GI Study can take into account proposed development in and around Exeter Airport and the proposed Cranbrook New Community (see 'Landscape Change and Development').

The wider area of search extends up to 10km from the core study area. This allows areas of strategic greenspaces to be identified that may contribute to the wider GI network.

The core study area includes three local authorities, as shown on Figure 11, and includes both urban and rural areas, as shown on Figure 12.

2.0 Natural Systems

2.1 Geology and Landform

Refer to:

- Figure 13: Simplified Geology
- Figure 14: Landform

The core study area has a varied and ancient geology that is fundamental to understanding the form and structure of the diverse landscapes present. The variations are evident in the different landscapes that exist, both in their form and in the way that they have been used in the past and continue to be exploited.

2.1.1 The Resource

Carboniferous mudstones and sandstones characterise the north of the core study area, extending in a broad wooded ridge and series of hills around the north of Exeter and terminating at Poltimore. The Exe and the Creedy rivers cut through these hills, and their valleys have been exploited as transportation routes through the hills for centuries, carrying major north south road and rail links to Exeter and the coast.

Permian Breccia, sandstones and isolated areas of basalt at the junction with carboniferous deposits characterise the lower and softer landscapes extending across much of the remainder of the study area. Whilst the Exe and Clyst and their tributaries have softened and shaped these underlying rocks, land rises to the west of the study area to form a complex series of valleys and ridges.

Triassic mudstones, sandstones extend across and beyond the eastern portion of the study area towards the hills and commons at Bicton and Colaton Raleigh where conglomerates become increasingly evident. The commons are notable as the underlying geology has influenced land cover and land use; the marginal soils arising from the rocks resulting in species rich lowland heaths and coniferous plantations being the predominant land use.

Superficial deposits cloaking the underlying solid geology are also significant in the core study area. The Exe and Clyst, and their numerous tributaries, have deposited broad belts of river borne alluvium in the valleys, with wide tidal flats being evident to the south of Exeter.

These deposits soften the landscape and create a flat or gently undulating landform. These seasonally wet areas also influence land use and land cover, with more limited settlement and a predominance of pastoral agriculture. Sand and gravel terraces are also evident, most notably on the northern banks of the Exe beneath the southern extents of the city. Small peat deposits are also evident. However, their extent and influence is limited. The most notable area of peat is at Hellings Park Fen where unimproved and semi improved marshy grassland is designated as a County Wildlife Site (CWS).

The major river valleys form well defined topographic features. Whilst the valley profiles vary, valley sides and flat floodplains create locally distinctive landscapes. For example, the Clyst occupies a broad, soft undulating landscape, which contrasts to the Exe as it passes through a narrow steep sided gap in the hills to the south of Cowley. These contrast dramatically to the vast panoramas across wide estuarine mudflats evident to the south of Exeter.

The major valleys through the hills to the north of Exeter have long served as routes for major transport infrastructure, although it is also important to emphasise the role that elevated hills played in early movement networks, with prehistoric routes gravitating to the higher ground and ridges. The hills and ridges to the north and west of Exeter are particularly important as they provide opportunities to gain wide panoramas and long distance views across Exeter or to its wider rural setting. The steepness of some hills has precluded development and the expansion of the city, and as such retain a rural character, despite the proximity of suburban development.

2.1.2 Analysis and Opportunities

- The underlying geology is fundamental to local and regional distinctiveness, as a result of its influence on topography, soils, land use, biodiversity, local

vernacular architecture and landscape character. GI presents an opportunity to celebrate the distinctive and varied geological character of the area, and notably in the types of building materials used. Routes through the landscape, new development and any landscape projects should reinforce the influence of the underlying geology through the choice of building materials or plant types specified;

- Elevated hills and vantage points provide opportunities for the location of landmarks and the celebration of views over Exeter, its urban fringes and its rural landscape setting; and
- Educational benefits arise from the potential for interpretation of geological features and links to the semi-natural, historic and cultural environment. For example, themed trails using appropriate signs and public art would increase awareness whilst also providing recreational benefits.

2.2 Hydrology and Flood

Refer to:

- Figure 14: Landform
- Figure 15: Strategic Flood Map

2.2.1 The Resource

The character of drainage patterns and hydrology in the core study area is a direct result of the underlying geological structure and physical character of the landscape. The entirety of the study area falls within the catchment of the Exe and Clyst. The belt of hills and elevated commons to the south east of Exeter form a watershed between the Clyst and Otter further to the east. As indicated previously, the Exe cuts a course through a belt of high ground to the north of Exeter, from where it flows though increasingly wide alluvial floodplains, and onto the tidal estuary below Topsham and the confluence with the Clyst. To the south of Exeter, the valley floodplains of both rivers are characterised by a multitude of meandering channels and drainage ditches indicating that waterlogging and seasonal flooding occurs.

Significant areas within each of the river valleys have been identified as floodzones by the Environment Agency. Figure 15 illustrates the extent of estimated extents of fluvial (from rivers) and tidal (from the sea) flooding. Areas at risk from ground water and surface water flooding are not illustrated. Flood risk arises from river flooding in the lower reaches of the river catchments and from the sea in tidal influenced areas[9]. It is notable that these floodzones currently contain only very limited settlement.

The effects of climate change on river flows and sea levels, and hence on flooding are difficult to predict. However, in the future it is anticipated that in the southwest there could be increases in the amount of winter rainfall and the intensity of storms. It is also widely predicted that sea levels may rise due to global warming, placing greater pressure on floodplains in coastal areas and areas bordering the tidal reaches of the Clyst and Exe.

2.2.2 Analysis and Opportunities

- Major rivers and their tributaries contribute significantly to the landscape character of the area and landscape features are reflected in topographical form and the pattern of land use, movement and settlement;
- The estuary and floodplain landscapes retain a strong rural and remote character in places with significant wildlife interest and future potential for habitat enhancement;
- Access to rivers valleys for recreation and movement provides the potential for closer association with ‘natural systems’, building on their educational potential and engendering a greater sense of wellbeing;
- The Exe valley is a major green space asset running through the heart of the city. By contrast, the Clyst defines the outer edge of the city and marks a buffer zone and transitional landscape from urban to rural. Both are key elements in defining the identity of Exeter, the core study area and wider area of search; and

[9]Exeter City Council, Exeter City Council Strategic Flood Risk Assessment. 2008

- Flood risk management and the requirement to implement sustainable approaches to future environmental management and development is an important consideration, particularly at the urban/ riverside interface. Sustainable Urban Drainage System (SUDS) should be employed in new developments and consideration given to enhancing the semi natural character and biodiversity interest of valley systems whenever possible through new development and in the future management of riverside spaces. Creative approaches to fluvial and tidal flood water management should be encouraged whilst recognising the need to ensure flood risk is not increased. The GI Study should inform new strategic water management initiatives to take advantage of opportunities to develop multi functional solutions.

2.3 Biodiversity

Refer to:

- Figure 16: Biodiversity – Principal Habitat Types
- Figure 17: Biodiversity - Designations
- Figure 18: South West Region Nature Map

2.3.1 The Resource

The core study area, like much of rural Devon possesses a rich semi-natural habitat resource. The most notable assets are the Exe Estuary, traditional rolling agricultural landscapes with meadows, woods and hedgerows and lowland heaths on hills to the east of the core study area. These and other habitat types support a great diversity of plants and animals, and contribute to the areas character and identity.

Whilst the city, fringing wooded hills and Exe are notable for the surviving tracts of large habitat areas, or smaller areas of linked habitat resource, there is a general pattern of habitat fragmentation across the eastern portion of the study area, resulting from a long period of agricultural improvement, and intensification.

Natural Area Profiles[10], locate the majority of the core study area within the Devon Redlands (Natural Area 90) which is noted for outstanding areas of lowland heath, small areas of dry neutral grassland and floodplain grazing marshes along the Exe Estuary and other river valleys. The western limits of the core study area coincide with The Culm (Natural Area 93). The Culm is one of the largest Natural Areas in the south west region, extending northwards and westwards to the Devon coast. Notable relevant characteristic habitats include upland oak woodlands, small wet woodlands and conifer plantations.

A brief description of the main habitat types are presented below:

Woodlands, Trees and Hedgerows

Significant concentrations of woodland are evident across the hills to the north and west of Exeter, particularly on steeply sloping hillsides and along valleys. Here they make a contribution to the character of the landscape. Ancient woodlands are notable and vary in size and configuration. However, there is a concentration at the confluence of the Exe and Creedy, with Stoke Wood and Exwick Wood forming large continuous tracts of woodland cover. Beyond the study area, extensive mixed amenity woodlands are evident at Ashclyst Forest and Haldon Forest. To the south of the core study area, further ancient broadleaved woodlands and plantations fringe the lowland heaths.

In addition to woodlands, plantations and copses, parkland and hedgerow trees contribute to the available habitat resource, particularly in agricultural and urban landscapes where there is limited other habitat evident. Hedgerows are also notable as, in addition to providing habitat for a range of species, they can also contribute to local habitat networks and movement corridors through the agricultural landscape.

The South West Regional Woodland and Forestry Framework and Implementation Plan[11,12], identify woodlands as amongst the most valuable of terrestrial habitats, providing economic, social and environmental

[10] Exeter City Council, Exeter City Council Strategic Flood Risk Assessment. 2008

[11] Woodland and Forestry Framework Steering Group, SW Regional Woodland and Forestry Framework, 2005

[12] Woodland and Forestry Framework Steering Group, SW Regional Woodland and Forestry Framework Implementation Plan, 2005

benefits. It states that in woodland, these three pillars of sustainability are inextricably linked and inter-related, contributing multiple benefits; notably as a source of renewable energy, biodiversity, construction materials, places for recreation, sport and healthy living and providing structure and beauty to the landscape.

Floodplain Grazing Marshes, Fens, Reedbeds and Swamps

There are no notable lowland meadows within the core study area, although several isolated examples can be identified in the surrounding landscape, such as along the Alphin Brook to the west of Exeter.

However, extensive tracts of floodplain grazing marsh, the most extensive habitat type in the study area, can be found bordering the Exe and Clyst. South of Exeter, wet meadows require increasing levels of drainage, and a network of channels can be seen to divide up the flat floodplain pastures. Further to the south again, shifting tidal waters and deposition has created extensive mudflats, a valued feeding ground for waders.

The Exe Estuary is internationally important and represents one of the most productive ecosystems in the area. The estuary and the agricultural areas that fringe it are important for overwintering wildfowl and waders and as 'refuelling' areas for passage migrants in spring and autumn. The estuary is popular as a recreational asset, and attracts large numbers of visitors. Some visitors use the estuary for wind surfing, jet skiing boating and dog walking which can all have a detrimental effect on wintering waders and wildfowl.

Together, these riverine and estuarine habitats provide important roosting, breeding and feeding areas for a great many bird species, including waders and wildfowl and support a great diversity of plants, insects and other animals.

Lowland Heath

There is no lowland heath within the core study area. However, to the south east of Exeter are the East Devon Pebblebed Heaths. These are a notable biodiversity resource and constitute the largest area of lowland heath in Devon. The areas varied soils and structure result in a rich diversity of habitats with both wet and dry areas of heath occurring together where small springs and flushes are evident. As well as heather (ling) plants such as dog violet and heath spotted orchid can be found, with bog asphodel and sundew evident in wetter areas. There are important breeding populations of Dartford Warblers and Nightjars on the heaths. Similar to the Exe Estuary, increased visitor use threatens habitats and the areas remote, tranquil and unspoilt character.

Biodiversity Designations

Nature conservation and the protection and creation of a healthy natural environment is beneficial in many ways, notably in protecting rare or threatened habitats and species; meeting national or local biodiversity targets; contributing to the quality of life and the well-being of the community; and supporting research and education. In response to this, the Government and local planning authorities designate those sites that are of substantive nature conservation value. A summary of the principal designations within and surrounding the study area is presented below.

The Exe Estuary is designated as an internationally important wetland area under the Ramsar convention on wetlands and also as a Special Protection Area (SPA) under the EC Birds Directive. The Pebblebed Heaths to the east of the core study area are designated as a SPA and also as a Special Area of Conservation (SAC). SACs, SPAs and Ramsar sites are all also Sites of Special Scientific Interest (SSSI). However in addition to these internationally designated areas there are two further designated Sites of Special Scientific Interest in the core study area; Stoke Woods and Bonhay Road Cutting.

A great variety of local designations can also be found within and surrounding the core study area. Local Nature Reserves (LNRs) are places with wildlife or geological features that are of special interest locally. Two are located in the core study area at Belvidere Meadows and Barley Valley.

Outside Exeter and across the rural landscape of Teignbridge and East Devon Districts, several County Wildlife Sites have been designated in and around the core study area. These are non-statutory designations for sites of county significance for wildlife or geology. Of particular note is the area of floodplain bordering the River Clyst between Clyst St Mary and Topsham; the only CWS fully within the core study area. Several additional CWS have been identified within Teignbridge District however these have yet to be formally approved. These are identified as 'Pending' on Figure 17.

In addition to these designations a range of other biodiversity areas have been identified. In Teignbridge District, a Biodiversity Enhancement Area has been identified around Exminster, bordering the sensitive habitats along the Exe Estuary. This consists of the Strategic Nature Areas from the South west Nature Map and the Cirl bunting enhancement zone identified by the RSPB. The Biodiversity Enhancement Zone has been designed to address 'islandisation' – where fragmentation further reduces the ability of an area to support a range of species, by providing opportunities for development to maintain and enhance the biodiversity of the area, to reconnect fragmented habitats, and to provide areas for species to move into and to adapt to climate change. Within Exeter, a similar aspiration is achieved through the identification of the Exeter Biodiversity Network. This comprises sites of national, county and local significance that, together, from a coherent biodiversity network throughout the city. This network has strong links to the Exe Estuary and to countryside to the north of the city.

South West Nature Map[13,14]

At the regional scale of planning, Biodiversity South West, a partnership of Government, local authority, statutory agency, non government and business representatives, has prepared the 'Nature Map' to provide a clear strategic picture of the region's biodiversity. This provides a broad scale vision for change which offers a spatial tool for identifying where biodiversity enhancement should be delivered in the future and will help identify areas that can contribute towards meeting regional targets for the restoration and creation of priority habitats and inform the formulation and use of policies in Local Development Frameworks (LDFs).

The South West Nature Map identifies landscape scale 'Strategic Nature Areas' (SNAs) that represent the best areas to maintain and expand wildlife habitats through appropriate management, restoration and/or creation:

- The Clyst and the Exe valleys have been identified as floodplain grazing marsh SNAs;
- To the north of Exeter the hills are also noted as woodland SNA;
- To the south of the city the Exe Estuary is identified as of importance as a coastal habitat SNA; and
- Beyond the core study area, the Pebblebed

Heaths are identified as a Lowland Heath SNA.
The initiative also acknowledges that at existing priority habitats, together with landscape features which provide wildlife corridors, links or stepping stones from one site to another help to inform important networks of habitats when viewed at the landscape scale. The concept of habitat networks is gaining widespread support and is seen as a crucial part of addressing problems of habitat fragmentation and enabling habitats and species to adapt to the effects of climate change by facilitating the migration, dispersal and genetic exchange of species in the wider[15] environment. Further advice and guidance has been prepared by English Nature (now Natural England)[16,17].

It should be acknowledged that the South West Nature Map presents broad areas in which to maintain and extend habitat resources, and therefore is not of a sufficient detail to inform local planning and design initiatives. The Biodiversity Network is an important resolution of this regional strategy at the local scale,

[13] Mike Oxford, South West Nature Map – A Planners Guide. Biodiversity South West, 2007

[14] The South West Wildlife Trusts, Rebuilding Biodiversity in the South West Technical Manual. November 2005

[15] Office of the Deputy Prime Minister, Planning Policy Statement 9: Biodiversity and Geological Conservation

[16] English Nature, Research Report 641 Opportunity Maps for Landscape Scale Conservation of Biodiversity: A Good Practice Study, 2005

[17] English Nature, Research Report 687 Planning for Biodiversity – Opportunity Mapping and Habitat Networks in Practice: A Technical Guide5

although again, further refinement will be necessary at the site planning scale to address local constraints and opportunities including issues such as land ownership and barriers to habitat connectivity.

Development of the South West Nature Map is ongoing, and future development of GI strategies should continue to make reference to this important initiative.

Biodiversity Action Plans

Biodiversity Action Plans (BAPs) set conservation objectives and targets and propose actions to achieve these. They represent a major step forward from previous reactive and conservation led approaches to biodiversity planning and development control.

The UK BAP (1994) provides the framework for more localised studies as well as a list of priority species and habitats. In 1998 the Devon Biodiversity Partnership prepared the 'Nature of Devon', a BAP with detailed Action plans for thirty seven species and habitats found across the county. The plan was revised in 2005. Since this time several local BAPs and Biodiversity Strategies have been prepared to focus on locally important issues.

The Exeter City[18], Teignbridge[19] and East Devon[20] Local BAPs each identify priority habitats and species and the actions that are needed to conserve and enhance key biodiversity. The priorities vary for each administrative area. However, the following are regarded as important across the core study area and its wider setting:

- Broadleaved woodland and trees;
- Estuaries;
- Coastal grazing marsh and salt marsh;
- Unimproved grasslands and meadows;
- Ancient and species rich hedgerows;
- Rivers, streams and open water;
- Agricultural land and field margins;
- Towns and Villages (gardens and green spaces); and
- Lowland Heath.

2.3.2 Analysis and Opportunities

- Protection of key wildlife sites must be a priority. These encompass all statutory and non-statutory designated sites including all existing and pending sites;
- Assemblages of similar habitat type within close proximity to each other have been identified in the South West Nature Map at the strategic scale. These should be developed and refined to identify key habitat reservoirs and links between core areas or key groupings of target habitats. These areas support the highest levels of biodiversity and should be protected and enhanced in their own right and through the different key habitat strategies. Priority should be given to areas that will provide the most benefit in terms of connectivity combined with the highest chance of achieving a high standard of restoration as determined by technical issues, such as past and current land-use, land ownership, soils and planned development;
- Contribute to the delivery of objectives in the South West Region Woodland and Forestry Framework Implementation Plan;
- Seek opportunities associated with new development and planning gain to help deliver nature conservation enhancement including the setting up of financial endowments (money invested, with the principal remaining intact) for management;
- In addition to the effects of mineral extraction on the biodiversity resource, there are opportunities for biodiversity creation and enhancement associated with site restoration and long term management;
- Development of Defra's Higher and Entry Level Environmental Stewardship Scheme and integrated funding co-ordinating both agri-environment and forestry grants may bring new opportunities and priorities. In addition to woodland management, restoration and creation, Stewardship grants should be particularly targeted at key habitat types such as species rich grassland, woodlands, heath and estuarine;
- Biodiversity influences local and regional distinctiveness in respect of landscape, townscape

[18] Exeter Biodiversity Action Plan

[19] Nature's Future – Teignbridge Biodiversity Action Plan. Teignbridge District Council, 2006

[20] East Devon District Biodiversity Action Plan. East Devon District Council, 2005

and riverscape character. Therefore proposals for creation or enhancement must be sensitive to local landscape character;

- Where core areas of habitat are located close to each other, priority links for habitat restoration and creation will be identified to enhance the habitat network and reduce the effects of habitat fragmentation. The technical constraints on habitat creation links or corridors will influence the prioritisation of action. Linear features such as water courses and hedgerows will be an important component in habitat connectivity;
- Habitat reservoirs and links will be identified and form an integral part of the emerging new 'Biodiversity Network';
- The health, well being and education benefits from semi natural habitats is an important potential dual functionality, particularly within urban areas and at the urban/rural interface. Opportunities to enhance these aspects should be explored further; and
- The Exe Estuary is internationally important and should form the focus of large scale habitat enhancement, whilst encouraging appropriate levels of visitors to exploit its recreational and educational potential in ways that are not damaging to the resource.

2.3.3 Potential Constraints

- There is potential conflict arising from the inappropriate use or increased access to sensitive habitats;
- New development may threaten habitats and habitat connectivity;
- There are technical limitations to the feasibility of habitat creation; and
- Land ownership constraints are a significant limiting factor to the enhancement or creation of habitats at the landscape scale.

3.0 Land Use and Human Systems

3.1 Land Use and Agriculture

Refer to:

- Figure 11: Local Authority Boundaries and Principal Settlements
- Figure 12: Aerial Photograph
- Figure 16: Biodiversity – Principal Habitat Types
- Figure 19: Agricultural Land Classification

3.1.1 The Resource

The core study area contains a great diversity of land uses, ranging from deeply rural areas characterised by mixed arable and pastoral farming, interspersed with farms and hamlets to urban and urban fringe areas associated with Exeter city.

Rural Landscape

Agricultural land use across the area is mixed, with a range of social, economic and environmental factors influencing the types of agricultural regimes employed. Of particular relevance is the quality of agricultural land, which is a major factor influencing the versatility of the land to accommodate different types of agriculture.

The Strategic Agricultural Land Classification for the area indicates that the highest quality and most versatile agricultural land is located across the areas of Permian New Red Sandstone along the eastern fringes of Exeter and in a broad arc to the north of the city from Broadclyst to Sweetham, located a short distance to the north of Newton St Cyres. Grade 2 agricultural land is less well represented within the core study area, although it can be seen to extend across the gentler hills and valley slopes on Breccia bedrock to the south and south west of Exeter.

Grade 3 land is the most extensive classification identified within the core study area, occupying both the deeply incised hills and valleys on mudstone and Breccia bedrock to the north and west of the city and the gently rolling landscapes to the east of Exeter where superficial

deposits clay, silt, sand and gravel exert an influence on soils and land quality. Typically, the lower grades of agricultural land can be seen to extend along the floodplains and valley floors of the Exe, Clyst and their numerous tributary streams.

Broadleaved woodland and coniferous plantations are a notable feature of the landscape to the north and west of Exeter, particularly on steeper sloping land and more intimate, small scale pastoral landscapes where there is a high occurrence of hedgerows, hedgerow and field trees. Ancient woodland, (thought to have been in existence since before 1600AD) is restricted to a small number of sites albeit large in area when compared to other woodlands in the core study area.

The rural landscape also displays a range of land uses other than agriculture and forestry, such as transport infrastructure, notably the Exeter Airport site and recreation, such as the County Showground and Crealy Adventure Park which both exert a localised urbanising influence.

Urban Areas

Within the city, a typical range of urban land uses is evident, with the historic centre surrounded by commercial, residential and industrial areas, which also contain the historic cores of satellite villages and settlements that have been subsumed into the urban area. These land uses are interspersed with areas of green space such as parks, playing fields and cemeteries, and semi natural landscapes, such as the Exe Valley which forms a green corridor through the heart of the built up area. Exeter is also notable for the amount of rural landscape that can be seen to extend into the urban envelope. Notable examples include Pynes Hill and 'fingers' of countryside around the eastern and northern fringes of the built up area.

Outside of the city, significant urban areas include Topsham, a town on the Exe Estuary, and Clyst St Mary, a village along the A376 between Exeter and Exmouth. Exeter Airport is also important components of the urban landscape. The M5 corridor which defines the eastern edge of Exeter represents a significant barrier between the city and surrounding settlements, especially Topsham which is accessed along minor routes.

3.1.2 Analysis and Opportunities

- Land use within the rural areas principally comprises agricultural land. Variations in land use and agricultural practices have a strong influence on landscape character, appreciation of landscape evolution and habitat persistence. Defra's Environmental Stewardship Scheme will enable the principles that underlie the Countryside Stewardship process to continue, either through the more widely available Entry Level Scheme, or with potential for more enhanced improvements through the Higher Level Scheme, subject to a comprehensive farm audit and justification of benefit and offer significant opportunities for coordinated enhancement of landscape, habitats and the historic environment;
- The proximity of Exeter to productive rural landscapes would suggest that local food initiatives will be a viable option for many landowners, particularly in the rural urban fringe;
- The main areas of woodland are located to the north and west of Exeter, although there is a significant spread of smaller woodlands throughout the study area. Opportunities exist for woodland management of existing and future woodland areas to deliver wood products to renewable energy initiatives, such as community Combined Heat and Power (CHP) schemes in existing and proposed communities. Enhancement of the biodiversity value and recreational potential of woodland sites is also encouraged through appropriate management and the restoration of coniferised ancient woodland sites;
- The diversity and rich urban fabric should be enhanced, in particular positive aspects of the city, such as its historic centre and historic cores of former villages and settlements, and the contribution made by urban green spaces and areas of rural landscape within the urban envelope and around the fringes of the town. The Exe valley is a significant green space running through the town, and this should continue to form a major component of GI within the core study area; and
- Links should be created both between the urban and rural landscape, promoting opportunities for recreation and enjoyment of the countryside, and between settlements, promoting sustainable modes of travel.

3.2 Heritage and Culture

Refer to:

- Figure 20A: Cultural Heritage (Core Study Area)
- Figure 20B: Cultural Heritage (Local Historic Centres)
- Figure 28: Simplified Historic Landscape Character

3.2.1 The Resource:

Numerous sites and features in the landscapes and townscapes of the core study area contribute to local identity and historic character and inspire an awareness of the great period of time that the area has been settled and exploited. Most historians and archaeologist agree that the character of Devon's historic landscape is different to that of most other parts of England[21] and as such the everyday rural landscape should be managed to protect valuable or rare elements and features and enhance our understanding of social, political and technological progress. This chapter presents some of the main features of interest in the area that are relevant to the GI Study.

Exeter City

The vast majority of heritage designations, notably Listed Buildings and Conservation Areas, Scheduled Monuments and Registered Parks and Gardens within the core study area are located within Exeter. This is remarkable, as significant destruction occurred during the Second World War when a quarter of the city centre was levelled.

The core of the city can trace its origins back to the Iron Age, with settlement evidence recently being found under the new Courts building. However, it is of later phases of occupation that above ground evidence survives. Roman military and civilian planning, and re-planning by King Alfred in the 9th century, underpin the framework of roads and streets that have persisted into the modern period and influenced successive waves of expansion and development in the city and its surrounding landscape. Within this framework, added to and adapted by successive generations, much of the surviving historic fabric and townscape character dates to later periods, notably the 16th, 17th and early 18th centuries which saw periods of prosperity for the city.

The city centre and its suburbs contain several Conservation Areas, with the Central and Riverside areas being of greatest significance as they contain many important monuments, buildings and spaces. The Riverside area contains the canal, canal basin and quay area and was once Exeter's maritime trading centre. Beyond the centre, other conservation areas mark early suburbs or earlier villages consumed by the growing city. In addition to the historic structures, the historic street pattern is important to understanding the growth of the city. As indicated previously, this pattern has evolved over many centuries, and the main elements are probably based on the Roman street system. For example, the A3015 Topsham Road follows the course of the Roman Road heading south east out of the city. The layout of roads and streets often creates views and vistas of considerable character and provides a context for understanding surviving structures and open spaces and contribute to townscape character.

In addition to built heritage, several parks and open spaces contribute to the historic character of the city. There are two sites on the English Heritage Register of Historic Parks and Gardens of Special Historic Interest; Bartholomew Street Cemetery and Northernhay and Rougemont Gardens. A local register for Exeter also exists, and sites on this list include Reed Hall, Higher Cemetery, Pinces Gardens and Pennsylvania Park.

There are also several archaeological sites and structures that have been identified of national significance and scheduled as Ancient Monuments. There are also many significant remains that are not currently scheduled, and these are recorded in the city's and county's historic and environment records.

Exeter Fringe and the Countryside

Topsham is a notable area of built development which is rich in historic townscape character. The town probably originated as a Roman port settlement, and was protected by a small military base. From the medieval period it developed into a significant port

[21] Sam Turner, Ancient Country: The Historic Character of Rural Devon. Devon Archaeological Society Occasional Paper 20. 2007

and shipbuilding centre. The town had close trading connections with the Netherlands and there are several houses that display a Dutch influence, in addition to fine examples of Georgian and Edwardian architecture. Beyond the city, there is a less dense spread of heritage designations. However, it is the rural landscape itself that forms an important record of past land uses and cultural evolution, both in the buried remains it contains and what is visible on the surface. The patterns created by fields, hedges woodlands and other land uses have been subject to extensive study, and the findings published in a comprehensive Historic Landscape Characterisation[22].

The process of characterisation involves research by historians and archaeologists and enables us to identify, amongst other things, when certain fields and settlement patterns were established and how they developed. Parish boundaries are also an important component of the historic landscape. The age of many parish boundaries is astonishing; the Christian church adopting some prehistoric estates for which the boundaries were visible and known in the landscape, such as on Dartmoor where several incorporate 'reaves' which are low banks of stone and earth constructed as territorial boundaries in about 1500 BC (Fleming 1978;1983).

Elsewhere boundaries commonly include ancient earthworks or distinctive points along the boundary, reflecting the continuity of human involvement in the landscape and the continuing importance of 'landmarks' in creating a sense of place. Boundstones were frequently set up at special points, and in open country they were sometimes the only visible indication of the course a boundary took. Some were inscribed with the initial letters of the parishes (each having a distinctive style)[23].

Given their ancient origins and long history of maintenance as a boundary feature, hedgerows along parish boundaries are often very old, and of notable biodiversity value. Indeed, the number of shrub species can actually give a clue to the age of a hedge - as a general rule the number of shrubs increases by one species for every 100 years of its age. Some parish hedges were also once part of woodland, since cleared.

It is evident that some rural areas display strong influences from their past. The core area of study contains infield patterns that in some instances can be traced back to the medieval period.

Interspersed amongst the fields and woodlands are several farms, hamlets and rural villages. These make a further contribution to historic character. Only one rural village (Sowton) in the core study area is designated as a Conservation Area. However, others retain a strong historic character, particularly where several older structures are clustered together. Scheduled Monuments and other historic sites surviving as above ground features are also notable in the rural and urban landscape and provide a direct and tangible link to how the landscape has developed through time. The Iron Age forts at Stoke Hill Camp (overlooking Exeter from the north) and at Woodbury Fort (visible on the skyline to the east from most of the study area) are two of the most visible and significant examples.

Transport infrastructure, such as roads, railways, bridges, canals, and airports are a tangible, if sometimes undervalued link to the past, with some routes in and around Exeter dating back many centuries. For example Exeter Canal, work on which began in the 16th century, is one of the oldest artificial waterways in the UK. Exeter Airport also has a rich, albeit more recent history. Established in the 1930's, the airport had an outstanding record during the war years becoming an R.A.F. Sector Station with an important role in the Battle of Britain.

3.2.2 Analysis and Opportunities

- Historic and cultural resources, in urban and rural locations make an important contribution to sense of place, sense of time, and landscape and townscape character. Patterns in the landscape, created by roads, tracks, hedges and field banks, as well as sites and features of historic interest should be protected and enhanced;
- The broadening of the knowledge and perceptions of the resource will improve the identity and image of the area, attracting visitors and business. Increased and improved interpretation and opportunities for education should be exploited;

[22] http://www.devon.gov.uk/index/environment/historic_environment/landscapes/landscape-characterisation.htm

[23] http://www.england-in-particular.info/parishmaps/m-boundary.html

- Opportunities to improve access to heritage assets should be explored where this is appropriate to the resource and its setting and will not adversely affect the site. Exeter has a series of promoted walks and guides that take in some of the city's major historic sites and features. These could be extended to encompass features in the wider suburban and rural landscape;
- There are opportunities to widen the understanding and interpretation of townscape character and historic parks located within the urban area of Exeter and in the wider rural landscape such as Bishops Court and Rockbeare House;
- There are linked opportunities to improve interpretation, recreation and heritage tourism focused on the maritime heritage of Exeter, Topsham and the Exe Estuary;
- There is considerable potential for the restoration and re-use of historic farm buildings, for example as camping barns on long distance footpaths, together with a wider understanding of the historic significance of these buildings; and
- Defra's Environmental Stewardship agri-environment incentive scheme operates at two levels through the more widely available Entry Level Scheme, or the Higher Level Scheme. The overall objective of both schemes is to encourage environmentally friendly farming. However, at a more detailed level a number of objectives are set out which include the protection of the historic environment. There will be many opportunities to address this objective, for example, the restoration of redundant rural buildings, as discussed above, and the cessation of inappropriate farming methods to protect archaeological and historic structures and buried remains.

3.3 Green Space

Refer to:

- Figure 21: Open Space
- Figure 22: Open Space Deficiency Analysis
- Figure 23: Open Space Deficiency Analysis Incorporating the Cranbrook New Community

3.3.1 The Resource

There is a network of strategic and local open spaces throughout Exeter[24] and the core study area that serve a range of functions from sport and recreation to food production. The wider area of search contains limited open space, due to a smaller, dispersed population.

The Wider Area of Search

There are limited recreational sites or other accessible open spaces outside the city. However, formal recreation areas and informal open spaces are located within or immediately adjacent to several villages, such as Clyst St Mary, Rockbeare and Clyst St George. At the eastern fringe of the core study is Percy Wakley Wood Woodland Trust Site. This quiet, rural secondary woodland consists of woodland and open habitat that is popular among residents in Rockbeare.

To the north of the city, Forestry Commission woodland at Stoke Wood situated on the steep slopes of Stoke Hill has been dedicated under Section 16 of the Countryside and Rights of Way Countryside and Rights of Way (CROW) Act 2000 and provides access to a picnic area and place to view the wider countryside.

Beyond the core study area, significant areas of accessible green space are also evident. Danes Wood and Cross and Ashclyst Forest, both part of the National Trust's Killerton Estate, are designated by the National Trust as land permanently open for public access. To the south east, the open areas of common land on the Pebblebed Heaths have been designated as Open Country and Common Land and as such visitors benefit

[24] Sam Turner, Ancient Country: The Historic Character of Rural Devon. Devon Archaeological Society Occasional Paper 20. 2007

from open access under the CROW Act. Haldon Forest Park is also a notable asset. It covers an area of almost 1500 hectares and contains several kilometres of cycle, horse and walking trails and a picnic area.

Urban Green Space

Within Exeter, open spaces including playing fields, allotments, public parks, informal open space are evident across the city. There is also a significant area, comprising a range of functions, identified as the seven 'Valley Parks'. These are regarded as 'green lungs' within the city and provide access for the purpose of walking, cycling, riding, picnicking and landscape and wildlife enjoyment as well as formal recreation, play and sports. The aim is to manage the parks to protect and enhance the landscape and wildlife habitats, improve access, both physical and visual, and develop environmental education initiatives.

Several open spaces have a dual function as a wildlife habitat. Most notable are Local Nature reserves at Belvidere Meadows on the northern fringes of the city and Barley Valley which lies adjacent to Redhills woodland, a linear Woodland Trust wood with recreational access along the steep slopes of the Nadder Brook.

Open Space Deficiency Analysis

Deficiency analysis, using criteria established by the Mayor of London[25], identifies that Exeter and to a lesser degree settlements in the rural landscape around it, are well served by parks and open spaces at a range of scales. Whilst the approach set out in the guidance is designed to set the strategic context for open space planning in the capital city, it provides a helpful method of determining deficiency based on established criteria. The deficiency analysis undertaken seeks to assess those parks, open spaces and woodlands and open access land that have public access and excludes farmland and woodlands without formal public access.

It should be noted that as PPG17 Open Space Assessments are completed for the wider study area, a more accurate analysis of deficiency will be possible. This may also be able to incorporate a detailed review of access to open spaces resources, factoring in severance and barriers to access. Further assessments at a local scale could also identify areas of semi natural greenspace, allowing analysis of deficiency based on Natural England's Accessible Natural Greenspace Standards (ANGSt).

Local Parks and Open Spaces

Local parks and accessible green spaces i.e. those that are less than 20ha, are widely distributed in the core study area and as such meet the demands of the majority of residents in the core study area when applying a 400m catchment area.

Strategic Parks and Open Spaces

Open Spaces between 20ha and 60 ha are less evenly distributed than local parks and open spaces leaving significant areas in the central and southern Exeter and the eastern and western portions of the core study area outside their 1.2km catchment areas.

Larger areas of open space, notably between 60ha and 400ha, are more widely distributed. The Exeter Valley Parks are particularly important in meeting the Mayor of London Criteria, with their 3.2km catchment areas covering the majority of the built up area of Exeter.

Haldon Forest, Harpford Common on the Pebblebed Heaths and Ashclyst Forest are also significant as their catchments include much of the rural landscape in the east of the core study area. However, an area of deficiency is noted in the vicinity of Exeter Airport. Open spaces in excess of 400ha are less common. Commons on the Pebblebed Heaths to the south of Hawkerland include within the 8km catchment much of the southern and eastern portion of the core study area. However, it is evident that the city of Exeter and the northern fringes of the core study area lie outside the catchment of an open space of this scale.

[25] Mayor of London, Guide to Preparing Open Space Strategies Best Practice Guidance of the London Plan. Greater London Authority, 2004.

Planned Green Space Provision

Using Mayor of London criteria, the master plan for the Cranbrook New Community has been analysed in the same way as existing open space provision. The analysis reveals that the planned development has no deficiency in smaller areas of open space (i.e. less than 20ha).

The proposed Country Park also serves the new community in providing access to open space of between 20ha and 60ha. The catchment of the park under the criteria encompasses Rockbeare that was identified as being deficient in access to open space between 20 and 60ha.

3.3.2 Analysis and Opportunities

- The value of a park or open space increases exponentially when it is connected to a larger strategic green space network. Opportunities exist to link some open spaces through a strategic network of green routes or streetscapes in the urban environment;
- Improvement in environmental quality, planning and design of open spaces should be encouraged to ensure they meet their full potential;
- Parks and more formally managed areas such as cemeteries and sports pitches should be seen as a significant opportunity for improving biodiversity assets through new management regimes (albeit respectful of the areas primary function). This is particularly important where they fall within areas identified as part of habitat networks;
- The educational benefits of the parks and open spaces should be recognised and exploited. Simple, low key interpretation facilities, may be appropriate in many cases, and cover topics such as local wildlife, cultural heritage, or health; and
- New residential and mixed use development presents an important opportunity for the provision of new open spaces and parks. Coordination of development master plans will ensure that the provision of new green spaces will deliver maximum benefit through their siting and design. For example, new parks may be of greater benefit when located along strategic pedestrian routes, perhaps identified on the Sustainable Movement Network as well as deliver elements of the Biodiversity Network. Further consideration should be given to the routing of communications infrastructure in new urban green spaces, and inclusion of SUDs as part of their design development.

3.4 Leisure, Recreation and Tourism

Refer to:

- Figure 21: Open Space
- Figure 24: Tourism and Recreation
- Figure 29: Strategic Landscape Context

3.4.1 The Resource

Tourism and recreation makes a significant contribution to the Devon economy, generating employment and income. Exeter is a tourist hub, containing several sites and features of interest, many of which are of historic and cultural significance, such as the catacombs, cathedral, city wall, Guildhall, castle, museums and theatres. Various walking routes have been designed to take in key sites and areas of interest, such as the City Wall Trail and the Green Circle, a 12 mile route around the perimeter of the city. Several dedicated trails are also provided to give access to wildlife sites in the Exe Estuary.

The core study area is located between several areas designated for their scenic beauty and recreational value; notably the East Devon AONB and Heritage coast to the south and Dartmoor National Park to the west. Other key tourist and recreation destinations in the wider area of search include the town of Topsham, which is a historic estuary port and contains many fine Georgian and Edwardian buildings and Dutch trader's houses. North east of Clyst St Mary is the Westpoint Arena, which hosts regular events, including the County Show, and attracts 90,000 visitors annually. Further to the east is the Crealy Adventure Park which attracts in the region of half a million visitors per annum, 63% of

whom are local residents. Other notable destinations are Haldon Forest Park, Killerton House and gardens and Powderham Castle as well as the Exe Estuaryand the Pebblebed Heaths, where access to remote, tranquil and semi natural landscapes are a key attraction.

As discussed in the 'Biodiversity' section the Exe Estuary is designated as an internationally important wetland area under the Ramsar convention and as a SPA under the EC Birds Directive. The Pebblebed Heaths are designated as a SPA and SAC.

The growing interest in outdoor recreation places pressure on sensitive landscapes such as the Exe Estuary and Pebblebed Heaths through increased visitor numbers. This pressure is likely to increase through the establishment of sizeable new communities throughout local area. It is therefore important to ensure that visitor pressure in these locations, and at other sensitive sites, is carefully managed to ensure that enjoyment and use of these areas does not diminish or threaten their remoteness, tranquillity and biodiversity value.

The M5 is the main route into Devon from the east. It terminates at Exeter, from where a network of trunk roads provides access to popular holiday and tourist destinations in Devon and further west into Cornwall. Exeter Airport and the mainline rail line are also significant. These pieces of major transport infrastructure, both located to the east of the core study area, along with the M5, provide tourists and visitors access to the area.

3.4.2 Analysis and Opportunities

- Accessible woodlands, other semi-natural environments and the rural landscape such as the Exeter Riverside Valley Park and Exe Estuary are valued informal recreational resources within the area, providing opportunities for the interaction between people and the landscape. Enhancement and improved legibility and connectivity would increase public use of these resources;
- The rural landscape of the core study area, east of Exeter, acts as a gateway landscape, overlooked by travellers heading towards Exeter and beyond, and its enhancement would improve visitor experience and perception;
- The River Exe, Exe Estuary and Exeter Canal provide a major recreational resource that can act as the focus for new tourist and visitor attractions. The Historic Quay is also a notable focal feature. However, opportunities exist to create a range of visitor experiences along the course of the river and canal through the city to the estuary linked by a legible and accessible network of footpaths and cycle routes. The Environment Agency highlights the use of rivers for enjoyment, communities and business, as a part of their 'Your Rivers for Life' campaign[26], a strategy for the restoration, conservation and development of navigable rivers. Cycle and canoe hire are already available for use along the Exe and canal. Cruises also operate on the Exe providing a unique perspective on the city and its setting and opportunities to view the estuarine habitats. Within the rural landscapes there is the potential for farm diversification to contribute more widely to leisure and tourism opportunities; and
- Areas that are noted for their tranquil character and sensitive semi natural habitats are under increasing pressure from greater numbers of recreational visitors and tourists. Access will remain important, however, it is acknowledged that the provision of enhanced green spaces within and surrounding the core study area will help to take pressure off sensitive landscapes elsewhere such as the Exe Estuary and Pebblebed Heaths.

[26] Environment Agency, Your Rivers For Life - A strategy for the development of navigable rivers 2004-2007.

3.5 Access and Movement

Refer to:

- Figure 25: Strategic Infrastructure
- Figure 26: Rights of Way

3.5.1 The Resource

The major access and movement network incorporates the M5 Motorway, main railway lines, Exeter Airport and major roads. Minor rural roads, local railways, bridleways, byways, footpaths and cycleways form important components of local transport infrastructure.

Road, Rail and Bus Routes

A strong underlying pattern of strategic movement (road and rail) exists within the study area. In the western portion of the core study area, rail and major roads (A396 and A377) follow the valleys of the River Exe and Creedy. At the confluence of these two rivers, these arterial routes meet at Cowley and follow the outer edge of the Exe floodplain southwards. The A30 follows a similar pattern, albeit following the bottom of the significantly narrower and steep valley of the Alphin Brook.

By contrast, in the east of the study area, the main routes into Exeter, the mainline railway, A30 and A3052 cut across the valley of the Clyst and as such take a more undulating course.

The M5 generally follows the outer, western edge of the Clyst valley, and wraps around the eastern fringes of the city and crosses the Exe and Exeter Canal to the north of Topsham on a viaduct. Broad undulations occur along this route as it traverses the watersheds between tributaries of the Clyst. This provides elevated viewpoints across the airport and rural landscape of the core study area from some locations on the southbound carriageway.

The M5 is critical to the economic prosperity of the area and in addition carries holiday traffic from the Midlands and the north of England, and London via the M4, to Devon and Cornwall. Junction 31 marks the end of the M5 and traffic is split between the A30 to Cornwall and the A38 and A380 to south Devon. The north Devon coast can also be accessed along the A377.

Beneath the framework of the arterial routes is a much finer network of minor, rural roads linking villages and farms. These vary in character across the study area, with narrow routes in deep cuttings and bordered by hedge banks being common in the steeply sloping hills in the north and west of the study area, and gently winding lanes flanked by hedgerows and drainage ditches east of the M5.

Significant areas, notably on the hills to the north and west of Exeter, and along the main river valleys and tributaries of the Exe and Clyst are inaccessible to vehicular traffic. As a consequence, bridges over watercourses are important places from where to experience the floodplain landscape, and roads over the hills provide some impressive panoramic views of the city and the wider landscape setting of the city.

Topsham is accessed along minor routes, and bypassed by the A376. This has helped maintain the separate and historic character of the town, with larger out of town developments, such as retail and garden centres, being located on the main routes.

Exeter is well served in terms of rail links, marking a hub in the local and regional network. Exeter Central Station and Exeter St David's are located in the heart of the city with links to and from destinations in the south, on either bank of the Exe Estuary, east along the main lines to London Paddington and Waterloo, north to Barnstaple and south west to Plymouth.

Bus routes and bus stops mirror the distribution of rail stations, with the central bus station at the heart of the city representing a transport hub, with stops serving the main residential, commercial and industrial parts of the city. Several Park and Ride schemes operate in the city to alleviate congestion. Park and Ride sites are located at Matford, Sowton, Honiton Road and Digby.

In the wider rural landscape, bus routes and stops provide connections to rural villages and destinations such as the Westpoint Arena, Crealy Adventure Park, Haldon Forest Park and Exeter Airport. Some rural

areas, with lower demand, are not served on bus routes. As a consequence, some areas of interest and rural destinations are only accessible by car, by bike or on foot, notably Stoke Woods and fort, Duryard Valley Park picnic area, and in the wider area of search, the Woodbury Common on the Pebblebed Heaths and Ashclyst Forest.

Walking, Cycling and Horse Riding

The principal recreational walking route in the core study area is the Exe Valley Way. It is almost 45 miles long, stretching from the South West Coast Path on the Exe Estuary to the village of Exford on Exmoor, with a link to the Exe Head, the source of the River Exe. Within the core study area the route follows the southern flank of the Exe Valley through the Exeter Riverside Valley Park. In the wider landscape, the East Devon Way follows the eastern edge of the common land at Woodbury. The commons are Designated Access Land under the CROW Act. National Trust land at Ashclyst Forest is also identified as being accessible.

Higher Level Stewardship Agreements, under the Environmental Stewardship Scheme, are entered into by several land owners in and around the core study area, for example land at Woodbury Common. One of the objectives of the Higher Level Stewardship Scheme is to improve access to the countryside through the maintenance of existing de facto routes and the development of new routes where this is appropriate and beneficial to the public.

Within the city, the 20km Exeter Green Circle is a popular walking route made up of five sections, each providing access to areas of contrasting character in and around the city, from the rural Alphin Valley to sections in Exeter Riverside Valley Parks and city centre. Whilst limited stretches of definitive rights of way are identified within the city, many non definitive walking routes exist, providing access and connectivity throughout the built up area.

Beyond these promoted routes, the rights of way network has a large number of instances of 'cul-de-sac' paths that do not link together or provide circular or joined up routes between neighbouring villages or villages to nearby areas of interest. This may have an adverse effect on the confidence of users to enjoy the rights of way the network. For example, several villages in the rural landscape in the east of the study area have short stretches of footpath radiating out from them. However, these are often truncated and provide limited connectivity. The river valleys and floodplains are particularly inaccessible to walkers, as is much of the eastern portion of the core study area[27].

There is limited connectivity for walkers between the city and its rural hinterland. Whilst routes along the Exe are actively promoted, those on to the hills to the north and west of the city are less well publicised.

The M5 corridor represents a significant barrier to pedestrian and cycle routes eastwards from the city. However, some routes across it are evident; a footpath crosses the motorway at West Clyst and to the south of Exeter and several footpaths and cycle routes give access under the motorway on the northern and southern banks of the River Exe. On the northern side of river, a footpath and cycle route pass beneath the M5 to provide links between Topsham and the Countess Wear area of Exeter. On the southern side of the river, a cycle route and three footpaths, including the Exe Valley Way provide various route options southwards towards Powderham. Other roads such as the A30 and A38 also impede movement with relatively few crossing points.

There is also a limited bridleway network. The rural landscape to the east of Exeter contains no bridleways, however, horse riders can access Stoke Hill to the north city and free riding areas are promoted at Haldon Forest Park and Woodbury Common, both a short distance outside the core study area.

Cycling is a popular recreational activity and means of transport. National and regional cycle routes are located in and around the study area. The main cycle route (National Cycle Network Route 2) runs through the city along the edge of the Exeter Riverside Valley Park southwards to Topsham and Exminster. These form part of a comprehensive cycle network that seeks to provide access throughout the city and traffic free commuter and recreational routes to the city from Exmouth and Dawlish. The Exe Estuary Trail, currently being developed by

[27] Devon County Council, Horse Riding in Devon. Promotional Leaflet.

Devon County Council as part of the National Cycle Route programme, will provide cycle paths on both sides of the Estuary. The Exeter to Topsham, Lympstone to Exmouth and Exeter to Exminster sections have already been completed. The Exe Explorer leaflet, produced by the Exe Estuary Management Partnership, covers all the footpath and cycle routes around the Estuary and up to Exeter, as well as public transport options.

Cycle Exeter, due to end in April 2009, is a project to encourage more cycling in the city and utilise the range of off and on road cycle routes that are within Exeter and the wider rural landscape of the core study area. Several maps and leaflets have been published to assist cyclist in the city, demarcating local routes and the location of bike hire shops and cycle parking stands. In the wider area of search, dedicated cycling routes are limited. The hills to the east and west of the city have no formal cycle routes to or through them, and no routes exist to the east of the M5 corridor. Beyond the core study area, a single regional cycle network route links Topsham to Woodbury and Aylesbeare. This route follows the lower slopes of the hills occupied by the Pebblebed Heaths and crosses the hills to the south of West Hill before running along the Otter Valley to Ottery St Mary.

3.5.2 Analysis and Opportunities

- Opportunities exist for the development of a coordinated environmentally sustainable transport network linking rural communities the city and destinations in the wider landscape. Initiatives should seek to improve access to workplaces, education, health, shopping and other facilities for existing and future residents in the core study area, encouraging healthier travel choices and minimising the effect of traffic and transport on the built and natural environment;
- Opportunities for improving, enhancing and plugging gaps within the footpath, bridleway and cycling network, to fulfil sustainable recreation movement and access objectives, through new projects and initiatives should be explored. The rural landscape around Exeter should be a priority with new routes designed to bridge the severance caused by the M5 corridor and other major roads. Priorities might include new access routes to hills to the north and west of the city, linking rural villages and rural destinations and improving the footpath link to Topsham along the foreshore;
- Seasonal public transport provision could be explored, with new stops at rural destinations and picnic sites such as Stoke Hill, Duryard Valley Park, Ashclyst Forest, Woodbury Common/ Pebblebed Heaths. Similar seasonal provision could be provided along key rural walking or cycling routes for an integrated network, facilitating access to the wider countryside;
- Opportunities for improvements to the rural PROW network should be expanded, principally through the reconnection of obstructed and disjointed paths, restoring the public's confidence in the network. In addition, improved access for the disabled, improved site interpretation and opportunities for education, and an increase in travel choices;
- Opportunities exist for the provision of footpath and cycle links from the Cranbrook new community to Ashclyst Forest and the rural PROW network; and
- Increase the provision of bridleways in the rural landscape and explore the potential for the provision of promoted circular hacking routes and trails.

4.0 Landscape and Visual Character

4.1 Landscape Character, Sensitivity and Designations

Refer to:

- Figure 27: Landscape Character and Designations
- Figure 28: Simplified Historic Landscape Character
- Figure 29. Strategic Landscape Context

4.1.1 The Resource

The assessment of landscape character is an objective process that provides factual information about a particular locality. It does not attribute a place with a subjective account of its relative quality, sensitivity or capacity and nor does it prescribe whether particular

forms of development or landscape change are appropriate or inappropriate.

National Scale Assessment and Landscape Change

In England, a hierarchy exists from the broad scale national character assessment at the top tier, through regional and county scale assessments to those at the district scale. The National Joint Character Areas (JCAs) are subject to a programme of review; the Countryside Quality Counts (CQC) Initiative[28]. This provides a systematic assessment of how the countryside is changing and helps us to understand where change is occurring to inform decision-making and policies for achieving sustainable development and to help enhance and maintain the character and quality of the countryside. A summary follows:

The Devon Redlands (JCA 148) is an extensive tract of landscape that extends across much of south Devon and is centred on the Exe valley. It is described as a hilly landscape with steep valleys and red soils that opens out to floodplains and salt marshes at the coast.

The CQC assessment identifies that several key characteristics in the landscape are under threat as a result of 'neglect':

- Trees and Woodland, notably small woodlands and steep valley side oak woods;
- Boundary Features, notably trees in hedgerows and along boundary features and boundary hedges and hedge banks, in particular in the urban fringe around Exeter; and
- Historic Features, notably traditional buildings in vulnerable areas such as the urban fringe and along road corridors.

Several key characteristic features are identified as being 'maintained' and as such continue to make a contribution to the intrinsic character of the area. Whilst being in a 'maintained state' the CQC assessment identifies some actions to further enhance character:

- Agricultural land is assessed as being 'maintained', notably through the maintenance of traditional mixed farming and the management of permanent grassland to protect wildlife features;
- Semi natural habitat is also assessed as being 'maintained', notably through strengthening of heathland landscapes and the restructuring of conifer plantations and the restoration of mosaics of heath, scrub and pasture. The CQC assessment also highlights opportunities for habitat creation and public access through the re-creation of heathland habitat on areas of conifer plantation; and
- Rivers and Coastal features are also regarded as being 'maintained' although the need for continued protection of water catchments from soil erosion and diffuse pollution is highlighted.

Settlement and development is identified as currently 'diverging' from the intrinsic character of the area. The rate of change is highlighted as being moderately high with evidence of the expansion of urban and urban fringe areas into the rural landscapes surrounding Exeter. The assessment also identifies evidence of scattered development in the open countryside, particularly south of Exeter. Particular pressure is identified from new roads, holiday-park, retirement and commuter settlement around the coast adjacent to the main routes into Exeter, with the historic character of villages and small towns being identified as of particular sensitivity to change.

County Scale Landscape Character Assessment

Devon County Council has completed a county-wide assessment of landscape character which is in the process of being refined at the local planning authority scale, with the ultimate aim of bringing each of the more detailed studies together into a more detailed county typology.

In advance of this work, a simplified character assessment has been prepared for use in this project. A brief summary of the Landscape Character Types in and around the core study area have been identified[29,30]. Wooded Hilltops and Ridges are limited in extent within the core study area to the hills and valleys to the north and west of Exeter. The landscape is characterised by visually distinct hills and ridges that rise out of the

[28] http://www.cqc.org.uk

[29] East Devon AONB, Blackdown Hills AONB and East Devon District Council Landscape Management Guidelines (Draft) 2007

[30] Teignbridge District Landscape Assessment (excluding Dartmoor National Park) 2001

surrounding lowlands. Land use is typically a mix of woodlands interspersed amongst irregular fields of pasture, occasionally with large arable open fields on the summit. Fields are generally small to medium scale and are delineated by earth banks and hedges, tree rows and frequent hedgerow trees. Significant areas of ancient woodland are characteristic, which, along with spring-line mires and unimproved pasture, provide great species diversity. Settlement is limited, and roads are narrow winding lanes. This along with a limited rights of way network imparts a remote, unspoilt character.

Lower Rolling Farmed and Settled Slopes are characteristic of much of the core study area, occupying a transitional zone between the flat river valleys and lowland plains and neighbouring hills and uplands. However, only limited areas are evident, as significant areas have been built on through the expansion of Exeter. Loamy brown soils are characteristic, with pastoral land uses predominant. Tree rows along many streams and ditches, along with the many hedgerow oaks and small copses contribute to its wooded appearance. This is a small to medium scale landscape, with variable field sizes in an irregular pattern, delineated by wide, low hedges and distinctive tall earth banks. The road pattern is winding with occasional sunken lanes in deep cuttings through sandstone banks. Urban fringe land uses, such as parks, sports pitches and garden centres are characteristic beyond the main built up part of the City notably on areas of open land west of the M5 corridor.

Lowland Plains occupy low lying areas to the east of the Clyst valley within the core study area and are distinguished by the absence of wetland habitat or river valley character. They are generally flat and in mixed cultivation, with a variety of field sizes and patterning. Arable cultivation is frequently locally dominant. Wide hedges and hedge banks are distinctive, often with prominent hedgerow oaks. Tall sandstone banks to either side of highways are a local feature on the settlement edges. Settlement patterns in the wider landscape are variable and often dense. However, there is only limited settlement evident in the landscape of the core study area, where there is often a strong presence of Victorian architecture. Commercial development is often also evident, notably along key transportation routes and at key junctions. Elsewhere the highway network consists generally of narrow winding lanes, with wider, straighter modern roads in some parts.

Unsettled Farmed Valley Floors landscapes follow the Exe and Clyst and their tributaries and are characterised by flat, open landform with vegetation typically located at the edge of the floodplain. Characteristic features include shallow streams and major river channels bordered by mixed farmland and some small areas of woodland. Winding lanes along the edge of the floodplain are edged with bushy hedgerows with bridges or fords located at crossing points. Some areas are accessible only along the rights of way network and as such many areas retain a tranquil character, albeit influenced by settlement and roads at their edge.

Pebblebed Heaths are situated to the east of the core study area, but are described here as they form a distinctive area of landscape character in close proximity. The heaths form a high, level to gently undulating plateau to the north of Budleigh Salterton, extending in a northwards orientation as far as Whimple. The poor soils support extensive areas of open, dry lowland heath with gorse and silver birch interspersed with scattered groupings of pine, fir or beech and conifer plantations. The area is used for forestry, nature conservation and recreation with some military use. Much of the area retains a remote character, with a sparse road network and limited settlement. The Heaths mark the south western extent of the East Devon AONB.

Upper Undulating Farmed and Wooded Slopes landscapes are limited in extent in the core study area to the hills to the north of Exeter, but are evident further to the north and east between Sidmouth Wellington and Chard. Key characteristics include undulating sloping land with deciduous woodlands and copses on upper valley slopes with mixed farming on lower slopes arranged in small to medium size irregular fields. Wide earth banks and species-rich hedgerows are also notable along with regular hedgerow trees, predominantly oak and ash, imparting an intimate and well-treed character. Upper stream valleys are often ‘V’ shaped without a distinct valley floor although patches of wetland are evident. Settlement is characteristically isolated farms, occasional large houses and small villages linked by narrow winding lanes. Little 20th century development is evident. A sense of remoteness is characteristic strengthened by the absence of settlement and the screening effects of vegetation limiting views out of the area.

Historic Settlement, derived from the Devon County Council Historic Landscape Characterisation (HLC) is characterised by core area of a historic settlements, based on the late 19th century 1st edition (25inch) Ordnance Survey maps. Within the core study area, the centre of Exeter and its Victorian and Edwardian suburbs, as well as older villages that fell within the expanding city are identified. In the wider rural landscape the core of several small villages and towns have historic cores.

Modern settlement, again derived from the Devon County HLC, is an area of modern settlement that was developed during the 20th Century. It is extensive around the core of historic Exeter and throughout the rural landscape around historic village cores.

Landscape Designations

The core study area and immediate surroundings contain significant areas of land that are designated on account of their distinctive landscape character or function. Of particular significance is the designation of Areas of Great Landscape Value (AGLV) to the west and north of Exeter that are largely coincident with areas of wooded hills and ridges and rural farmland extending southwards to the coast.

Areas of undeveloped coast and estuary in Teignbridge are also designated, as a Coastal Preservation Area. This designation lies immediately to the south of the core study area, extending southwards along the Exe Estuary to the coast.

Within Exeter City Council's administrative area, several areas of undeveloped land in the urban fringe landscape have been designated based on the need to protect it from development because of its intrinsic merit and its contribution to the distinctive landscape setting of the city. These are particularly extensive across the hills to the north of the city, and in an arc to the east and north of Topsham.

In the East Devon administrative area tracts of landscape have also been designated as 'Green Wedge'. These areas are designated to ensure that new development is avoided that would add to existing sporadic or isolated development, damage the individual identity of a settlement or lead to the coalescence of settlements. In the wider landscape, the western extent of the East Devon AONB extends in a north westerly direction from the Pebble Bed Heaths to West Hill. The designated area is characterised by intimate wooded combes, areas of heathland, fertile river valleys and dramatic cliffs and hills. It includes the East Devon section of the Jurassic Coast which is England's first natural World Heritage Site.

Approximately 7km to the west of the core study area is the eastern edge of the Dartmoor National Park. Dartmoor is a largely cultural landscape shaped by management of its distinctive and often harsh environment over 8,000 years. It has a rich diversity of habitats that has developed in response to traditional forms of land management and is a popular tourist destination.

Landscape Sensitivity and Capacity

In 2006 Exeter City Council commissioned an assessment of the capacity of greenfield areas around the fringes of the city in order to help identify areas to accommodate development and areas that should be protected from development in response to the findings of the South West Regional Spatial Strategy[31].

In summary, the study found that there is only limited landscape capacity for additional housing and employment in and around Exeter. It highlighted the need to protect the sensitive landscapes of the valley bottoms and the hillsides to the north and west and to maintain green fingers of open space penetrating into the city. It also notes that many areas which form an important visual setting also act as recreational and wildlife corridors and reservoirs. Other areas of constraint include the landscapes around Topsham.

The study also notes that in areas of higher capacity for development there is a need for careful design and consideration of how individual sites can contribute to the open space and wildlife network of the city and its surroundings. It proposes that this can be achieved through design or development briefs that include landscape, nature conservation and urban design/ settlement edge objectives. Clearly the GI Study is a key mechanism for providing the vision and spatial framework for future development proposals in rural and urban areas.

[31] Diacono Associates and White Consultants, Exeter Fringes Landscape Sensitivity and Capacity Study. 2007

4.1.2 Analysis and Opportunities

- There is a great diversity of landscape and historic character across the core study area. GI initiatives and developments will provide the opportunity to strengthen and enhance landscape and townscape character through coordinating, guiding and managing change and development;
- Proposals should consider local character and context at all times, including the historic landscape context, in order to contribute to positive landscape change, and to enable opportunities for landscape enhancement and creation to be considered as an integral part of scheme development;
- Defra's Environmental Stewardship scheme encourages a positive response to landscape character and has released broad guidance to farmers and landowners on the management options and potential enhancement works. The guidance relates to the Joint Character Area within which farmholdings are located. There are opportunities for farmers to enter into Environmental Stewardship schemes and contribute to the wider network of GI and also respond to the principles of working in accordance with and enhancing the inherent landscape character at the local scale;
- Changing land uses in urban and rural contexts can threaten to erode or homogenise landscape character at both the micro and macro scale. The growth of Exeter, together with associated infrastructure and developments in the wider landscape such as the Cranbrook New Community will offer significant opportunities for the strengthening of local landscape and townscape character and also to create new character if appropriate;
- At the micro scale, the local effects of land management change and detailing of features such as access route improvements and footpaths would need to be sensitively handled;
- Use development and change to respond to CQC and local initiatives to enhance strength of local landscape character; and
- Emerging and recently completed local landscape character assessments, such as the East Devon and Blackdown Hills AONB, East Devon District Council's 'Landscape Management Guidelines' and Teignbridge District Council's 'Landscape Character Assessment' should guide all landscape restoration and enhancement.

4.2 Visual and Perceptual Character

Refer to:

- Figure 27: Landscape Character and Designations
- Figure 30: Visual and Perceptual Character

4.2.1 The Resource

The core study area has a rich and varied character, influencing how the rural landscape and urban and urban fringe areas are perceived. Of particular significance is the nature of landform, and in particular the hills that define the setting of Exeter, the valley that runs through it, the expansive estuary, and rolling rural landscapes east of the M5.

Landform, Principal Viewpoints and Urban Fringe

The most dramatic landform features are the steep sided hills to the north of Exeter, where they flank the confluence of the Exe and Clyst and to the west of the city where the form a wooded ridge running along the western side of the estuary.

To the west of the Exe the hills and ridges are steeply incised, with several streams draining the uplands creating a folded landscape of valley slopes, often cloaked in woodlands. By contrast, Stoke Hill and Beacon Hill to the east form a broad convex hillside. Here valleys and slopes tend to be gentler and broader which has been more conducive to accommodating the growth of Exeter, and as such the lower sections of the south facing slopes are cloaked in the suburbs of Pinhoe and Stoke Hill. The valleys have been left open and represent important 'green fingers' of land penetrating the city.

These hills provide dramatic and varying viewing opportunities, both across the city and to its wider rural setting. For example elevated areas on the southern flanks of Stoke Hill and Beacon Hill provide wide panoramas of the city. The southern backdrop is formed by distant hills, notably the wooded slopes that fringe the western banks of the Exe Estuary. By contrast views northwards and westwards are of a deeply rural landscape of interlocking hills, punctuated by deciduous copses and coniferous plantations on steep slopes. The hills to the west of Exeter, that define the western edge of the core study area, again provide dramatic views across the city although they are generally inaccessible except along narrow lanes. The hills to the south of the study area are also significant. Whilst lower than hills to the west and north of the city panoramic views to Exeter can again be obtained across the floodplains and parks bordering the Exe with the city occupying the middle distance. Again, distant hills provide a backdrop to the urban form. Views southwards are also possible, with the M5 viaduct and estuary dominating the scene.

Locations within the estuary and lower Exe valley provide a contrasting perception of the city and its landscape setting. Within the valley, views are generally more limited in extent, with landform, vegetation and structures flanking the floodplain screening and filtering middle and long distance views.

To the south of Cowley, the valley floodplain is narrow and flanked by recent suburban expansion on the lower slopes of the valley, giving way to productive farmland rising to Stoke Hill. To the west, the scene is of a rural landscape of pasture, interspersed with arable land and woodlands on steep slopes. The valley floor is characterised by drained pasture with riverside alders and willows. The valley also carries the main road and rail routes into the city from the north, albeit contained in a narrow corridor on the eastern side of the valley. Further to the south, the character of the valley becomes increasingly influenced by the city. Pastureland gives way to sports pitches and mown amenity grassland, allotments, railway sidings and riverside residential and employment areas.

Below the historic Quay, the valley floodplain becomes wider and accommodates a variety of urban land uses including a range of industrial and commercial developments and a series of visually prominent pylons. However, despite the close proximity of these urban land uses, a semi-rural character generally prevails. To the south of the M5 flyover wide panoramas across the estuarine mudflats are possible and views to the city are generally obscured. Particularly fine views are possible from Riversmeet House at Topsham at the confluence of the Exe and Clyst. Long views southwards are possible along the Exe whilst views towards the east are limited by the wooded ridge.

To the east of the city, there is a complex and varying visual character ranging from typical urban fringe to deeply rural. Many views are dominated by direct or filtered views of the city edge or typical urban fringe land uses such as parks, recreation areas, garden centres and trading estates. In many locations a permeable urban edge is experienced, with a subtle transition from urban to rural evident. By contrast, between Junctions 30 and 29 of the M5, the motorway creates an abrupt urban rural interface.

Whilst the visual influence of the city diminishes with distance eastwards from the urban fringe, it is notable that in otherwise rural areas, the proximity of Exeter can have an urbanising influence. This is most notable along the main arterial routes; the A376, A3052 and A30, and in particular in close proximity to Exeter Airport, and business park. The series of high voltage pylons running through the Clyst valley also exert an urbanising influence.

Focal Points and Landmarks

There are a number of prominent and distinctive landmarks within the core study area. Major landform features, notably Stoke Hill, Beacon Hill and the Exe Estuary are particularly important and make a significant contribution to the setting of the city.

Groups of hill top pine trees and telecommunications masts such as those close to the Church Patch Plantation on Old Matford Lane to the south of the city, act as locally prominent features, the latter presenting

an urbanising influence, often on otherwise rural hills. Within the city the cathedral and several church towers punctuate the skyline and provide key focal features and orientation points in panoramas from elevated viewpoints. Beyond the core study area the Belvederes at Haldon and Powderham are visible and form prominent features set amongst woodland to the west and southwest of the city.

In the core study area to the east of the city, the undulating rural landscape contains few memorable or prominent landmarks. Bishops Court is however a notable feature. Set amongst its parkland, the house is a fine example of Neo Gothic architecture, although its wider setting is influenced by views to industrial estates on the eastern fringe of the city.
Whilst not visually prominent, the village of Sowton, and the collection of Georgian and Dutch inspired town houses in Topsham form memorable architectural features in the wider landscape to the east and south of the city.

4.2.2 Analysis and Opportunities

- Topography, hydrology and settlement patterns combine with a distinctive distribution of woodland cover to create a diverse range of views within the core study area. GI initiatives and developments will provide an opportunity to enhance the existing variety of views within and across the city as well as strengthening the visual relationship between Exeter and the landscape surrounding the city;
- Proposals and future landscape management initiatives should consider the function of wooded copses and groups of pine trees on hill tops as distinctive local landmarks and the role of woodland vegetation in the wider landscape in containing and channelling views;
- Future proposals and GI initiatives can play a role in filtering views and fragmenting the existing abrupt rural/urban interface between the eastern edge of Exeter and the wider landscape of the countryside beyond; and
- There may be opportunities for strategic vantage points within and around the city to be formalised as official 'viewpoints' as part of a series of visitor attractions. These could be used to emphasise the visual relationships between topographic, hydrological and historic features in the wider landscape. Development of vantage points would need to be considered in conjunction with improved recreational access and movement strategies in the core study area.

4.3 Landscape Change and Development

Refer to:

- Figure 31: Major New Development East of Exeter

The core study area is characterised by both urban and rural areas and as such various pressures for change can be anticipated over the coming decades.

4.3.1 New Built Development

Opportunities for substantial growth and expansion within the Exeter city boundary are constrained by various factors. As a result, whilst significant new development will be located within the city, important elements of housing and employment growth will be accommodated to the east of the city in East Devon District and to the south west of the city in Teignbridge District This has been supported at the national level by the allocation of funding to support delivery through the Growth Point Initiative.

The Draft Regional Spatial Strategy for the South West, published in 2006, identifies the amount of dwellings and areas of employment land that will be required in the plan period, however, these targets have since been updated by the Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changes (2008) which increases both the housing and employment provision.

The Secretary of State's recommendations on housing growth are of particular significance. Within Exeter 15,000 dwellings are proposed during the plan period (2006 and 2026). This requirement will be met by locating 12,000 new homes in the existing urban area, locating 2,500 new homes immediately east of Exeter (known as Area of Search 4A), and locating 500 new homes immediately south west of Exeter.

The 500 new homes south west of Exeter will form part of larger development that also includes 2,000 within Teignbridge District. This is known as Area of Search 4C. Within East Devon District, the most significant new development will be the Cranbrook New Community, which includes 7,500 dwellings. Further proposals include 4,000 dwellings east and north east of Exeter (known as Area of Search 4B).

Other new development is to be located in the area of land to the east of Junction 29 in the vicinity of Exeter Airport. Here, in a broad belt of land defined to the north by the mainline railway and south by the busy A30, proposals for six major new developments are emerging:

- University of Exeter Science Park;
- Intermodal freight terminal;
- Clyst Honiton Bypass;
- Skypark;
- Exeter Airport New Terminal; and
- Cranbrook New Community.

Another proposal on the fringe of Exeter is the Weatherworld project. The scheme is to construct a new visitor centre at Westpoint that has a primary focus on explaining the world's weather patterns and increase public awareness about climate change.

Considering the evidence above it is evident that Exeter and the urban fringe landscape will see significant change in the coming years, and that the area to the east of Junction 29 will be a particularly important focus for development.

4.3.2 Analysis and Opportunities

- The growth identified in the Regional Spatial Strategy presents opportunities for the establishment of sustainable communities in rural and urban fringe locations, as well as bringing forward ideas and potential sources of funding for enhancement of townscape and rural character and delivery of GI projects and initiatives, either directly through the development scheme or through off site contributions; and
- The Cranbrook New Community and other emerging initiatives present a significant opportunity to plan, design and deliver a major development that makes a positive contribution to the locality and realises several GI Projects and aspirations.

4.3.3 Land Use Change

The rural landscape displays a range of agricultural management regimes. Typically improved and semi improved pasture is located on the steeper sloping land, punctuated by broadleaved copses and coniferous plantations. Elsewhere, arable farming is evident, along with relatively new introductions such as maize to provide winter fodder as well as cover for game birds. The UK farming industry is subject to numerous pressures and agents of change, both at the global and local scale. It is not clear how land holders and farmers in the core study area will respond to increasing demands for energy crops, or the increased popularity of local food initiatives. The range of crops and amount of productive agricultural land may also change as a consequence of climate change, either through changes in temperature, rainfall or ground water. Again, these impacts are difficult to appreciate at this time. However, it is likely that the range of influences will alter the character of the rural landscape in the coming years.

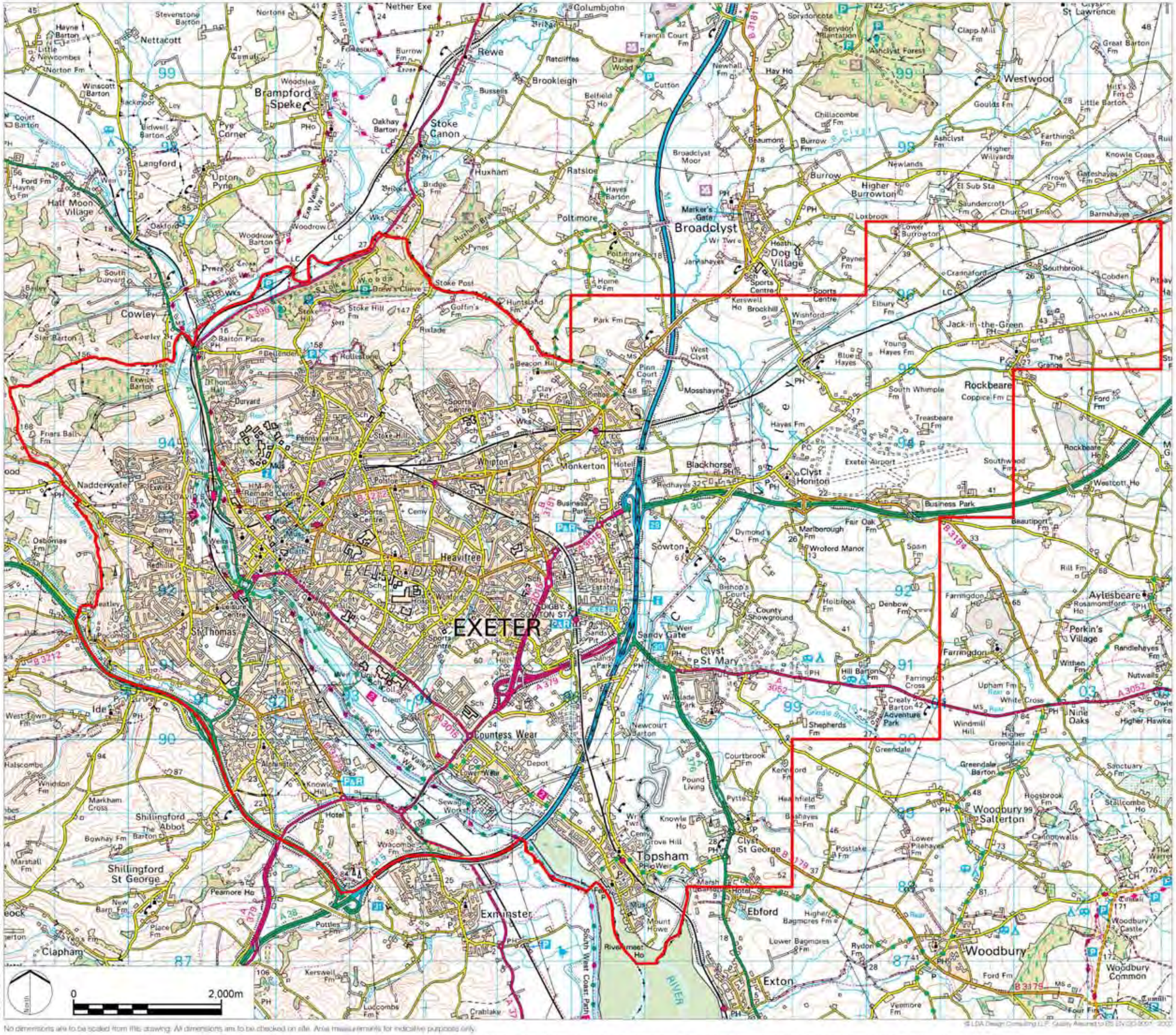
The proximity of a large urban market would indicate that the rural hinterland of Exeter may, at least in part be subject to changes influenced by the immediate demands of the urban populous for food and energy.

Many farms and land holdings have entered the new Environmental Stewardship Scheme[32], which provides funding to farmers and other land managers who deliver environmental management on their land. The majority of holdings in the scheme within the core study area are in the Entry Level Stewardship (ELS) scheme, which encourages simple and effective land management. However, significant areas in the vicinity of Clyst Honiton and Topsham have entered the Organic Entry Level Stewardship (OELS) scheme, and as discussed in relation to Walking, Cycling and Horseriding, several land owners in and around the core study area have entered into the Higher Level Stewardship (HLS) scheme.

[32] www.magic.gov.uk

4.3.4 Analysis and Opportunities

- GI may present an appropriate mechanism for liaison with farmers and land owners to enhance rural landscape character through particular farm management or activities, improve access and enhance biodiversity, as well as meet other objectives such as local food or energy crop production, perhaps for local community Combined Heat and Power (CHP) schemes; and
- There is potential to coordinate the activities of farmers to contribute to Biodiversity Network and Sustainable Movement Network as well as develop new educational or recreational activities.



Legend

🟥 Core Study Area

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Figure 9: Core Study Area

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0009		

Source: Ordnance Survey & Project Advisory Group

No dimensions are to be scaled from this drawing. All dimensions are to be checked on site. Area measurements for indicative purposes only.

Legend

- Core Study Area
- 300m Buffer of Core Study Area (*Greenspace over 2ha identified)
- 2km Buffer of Core Study Area (*Greenspace over 20ha identified)
- 5km Buffer of Core Study Area (*Greenspace over 100ha identified)
- 10km Buffer of Core Study Area (*Greenspace over 500ha identified)

Refer to Figure 21: Open Space Deficiency Analysis and Figure 22: Open Space Deficiency Analysis Incorporating the Cranbrook New Community

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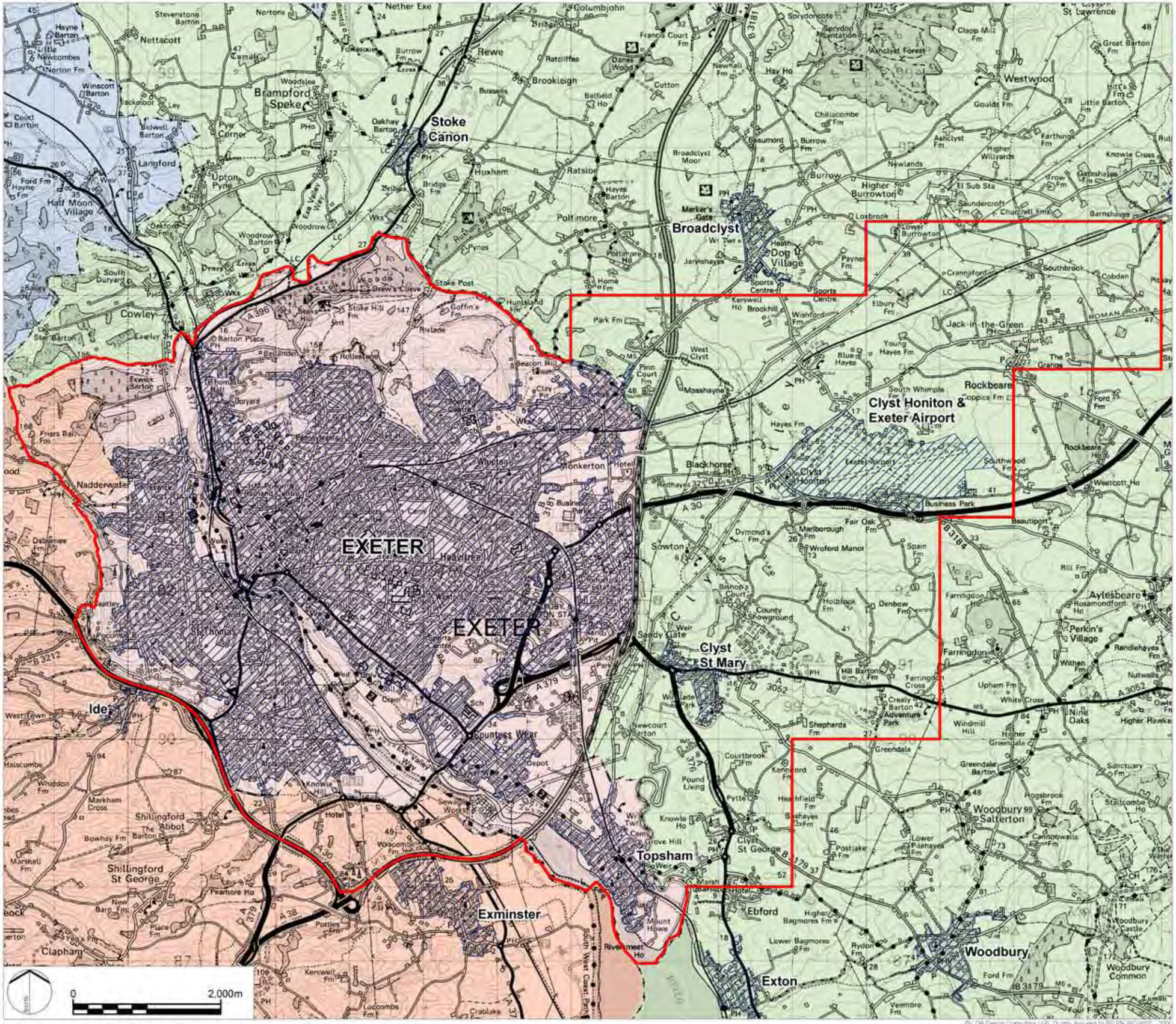
Figure 10: Wider Area of Search

DATE	March 2009	DRAWN	RP
SCALE	1:125,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0010		



Legend

- Core Study Area
- Principal Settlements and Exeter Airport (named)
- Exeter City Council
- East Devon District Council
- Teignbridge District Council
- Mid Devon District Council

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Figure 11: Local Authority Boundaries and Principal Settlements

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0011		

Source: Ordnance Survey, Project Advisory Group & 2001 Census Area Data

Legend

Core Study Area

Aerial Photograph

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Figure 12: Aerial Photograph

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0012		

Source: Ordnance Survey, Project Advisory Group & Cartographic Engineering

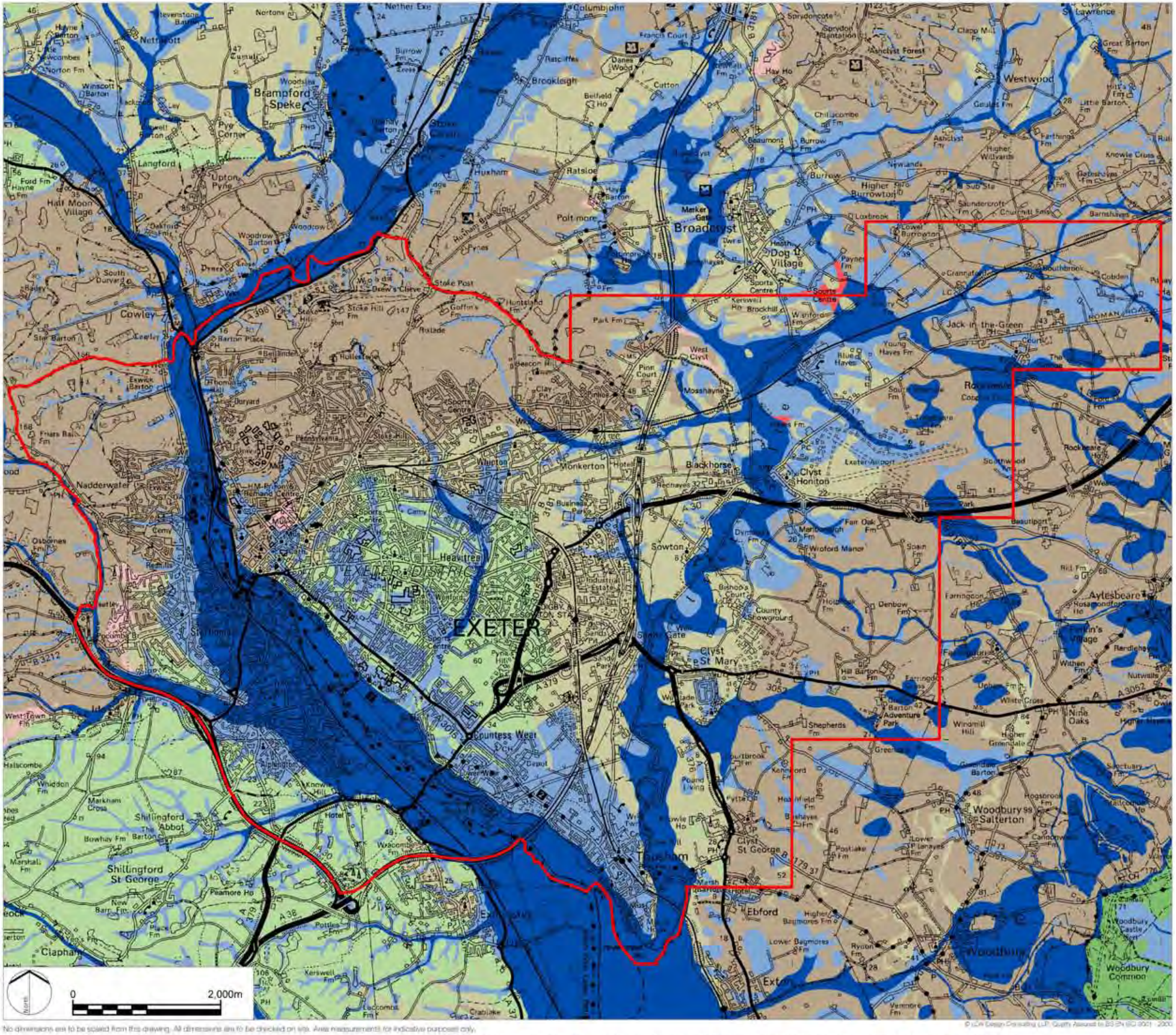

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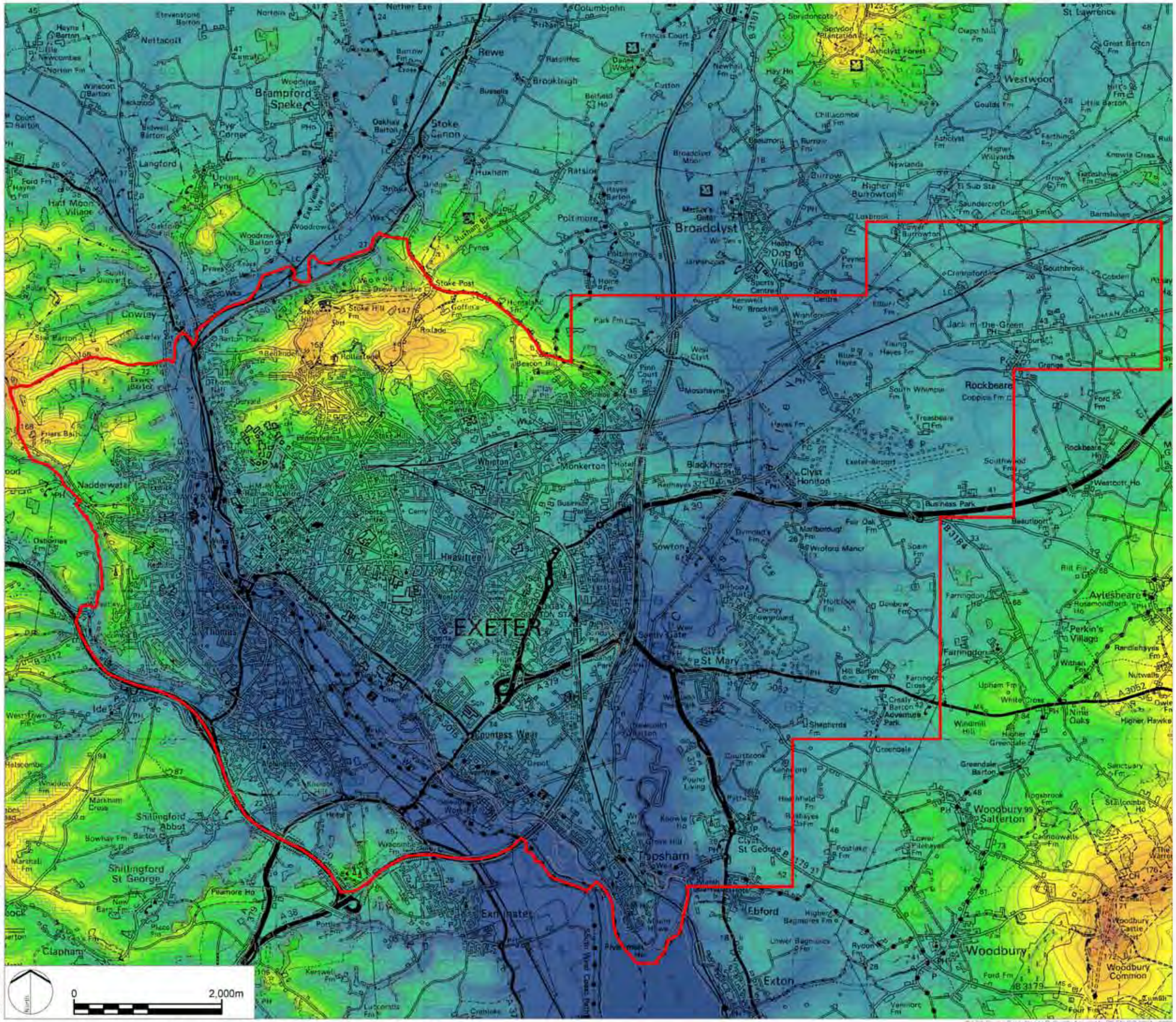
Figure 13: Simplified Geology

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0013		



Legend

Core Study Area

10m Contour

Landform

- 0 - 10 AOD
- 10 - 20 AOD
- 20 - 30 AOD
- 30 - 40 AOD
- 40 - 50 AOD
- 50 - 60 AOD
- 60 - 70 AOD
- 70 - 80 AOD
- 80 - 90 AOD
- 90 - 100 AOD
- 100 - 110 AOD
- 110 - 120 AOD
- 120 - 130 AOD
- 130 - 140 AOD
- 140 - 150 AOD
- 150 - 160 AOD
- 160 - 170 AOD
- 170 - 180 AOD
- 180 - 190 AOD

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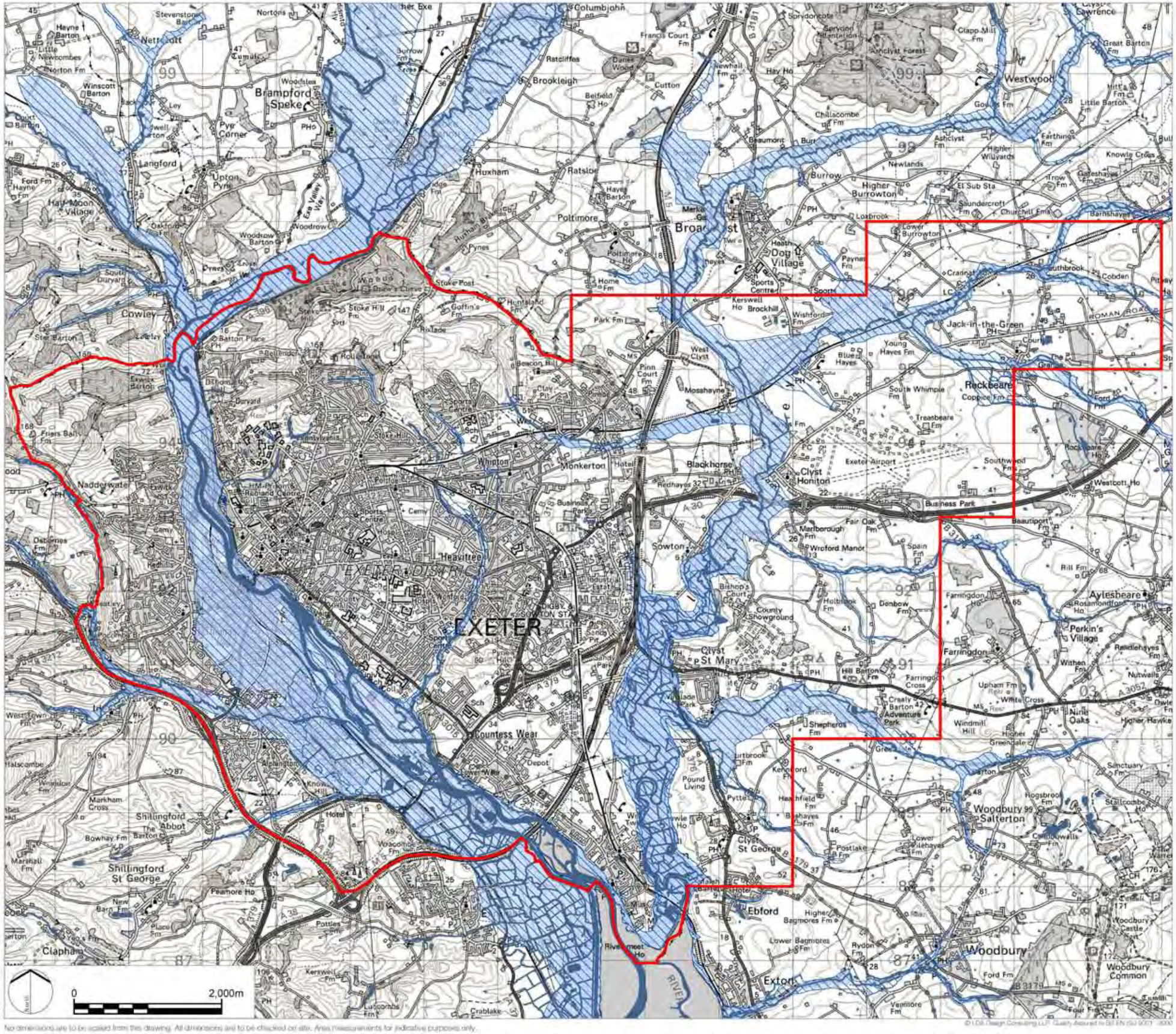
Figure 14: Landform

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0014		



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Legend

🟥 Core Study Area

〰 River/ Open Water

▨ Flood Zone 3 (high risk with annual probability of flooding of 1% or greater)

🟦 Flood Zone 2 (low to medium risk with annual probability of flooding of 0.1-1%)

▱ Contours at 10m intervals

Strategic Flood Map (Draft).
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Figure 15: Strategic Flood Map

DATE March 2009
SCALE 1:50,000 at A3
STATUS FINAL
DWG.NO. 2594LE/0015
DRAWN RP
CHECKED IH
APPROVED FO

Source: Ordnance Survey, Project Advisory Group & Environment Agency

NA 93

NA 90

EXETER

0 2,000m

Legend

Core Study Area

Natural Area Boundary
NA 90 - Devon Redlands
NA 93 - The Culm

Woodland Habitat

Broadleaved Woodland*

Coniferous Woodland*

Mixed Woodland*

Shrub*

Young Trees*

Ancient Woodland

Terrestrial Non-Woodland Habitat

Lowland Meadow**

Lowland Heathland**

Wetland/Open Water Habitat

River/ Open Water

Fen**

Mudflat**

Floodplain Grazing Marsh**

Reedbed**

* Forestry Commission National Inventory of Woodland Types (NIWT)
** Natural England Data

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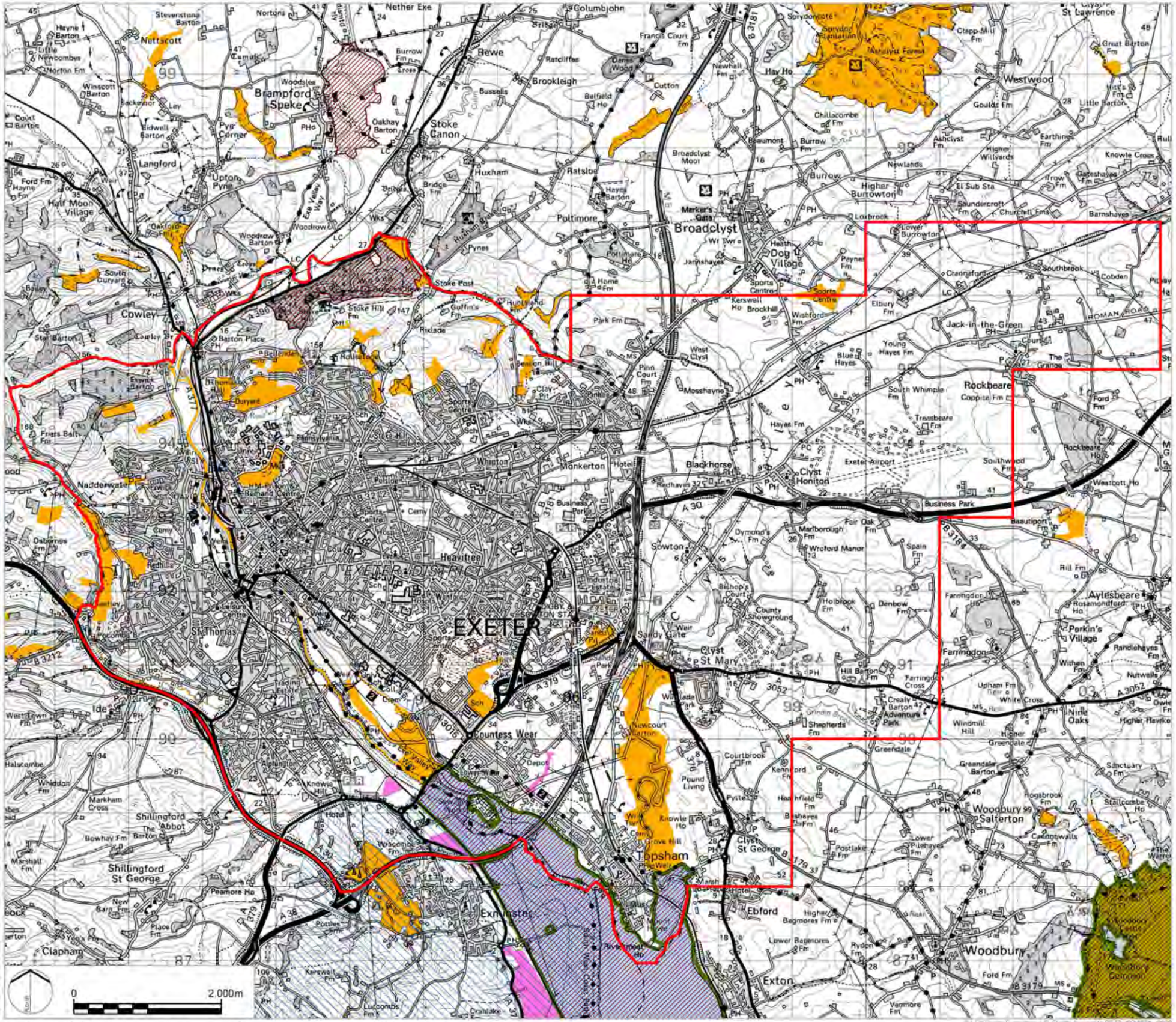
Figure 16: Biodiversity - Principal Habitat Types

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0016		

Source: Ordnance Survey, Project Advisory Group, Natural England & Forestry Commission



Legend

- Core Study Area

International/European Designations

- RAMSAR Site
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)

National Designations

- Site of Special Scientific Interest (SSSI)
- Regionally Important Geological and Geomorphological Site (RIGGS)

Local Designations

- County Wildlife Site (CWS)
- County Wildlife Site Pending (CWSP)
- Biodiversity Enhancement Area Teignbridge District only

Note: Data correct as of Autumn 2007.
Data illustrated is for illustrative purposes.
Reference should be made to the relevant Local Planning Authority or Natural England for up-to-date information.

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Figure 17: Biodiversity - Designations

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0017		

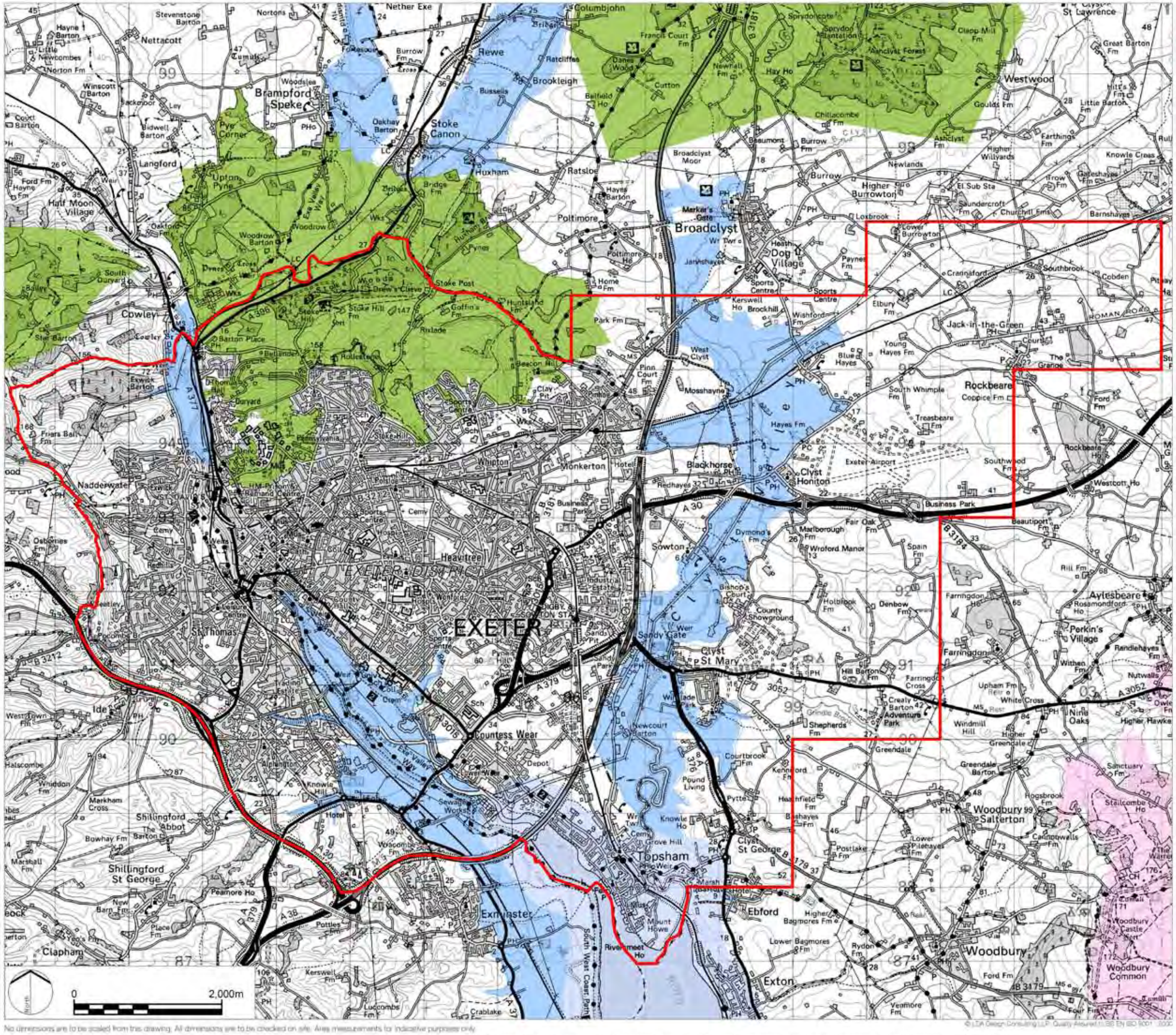

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Figure 18: South West Region Nature-Map

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0018		

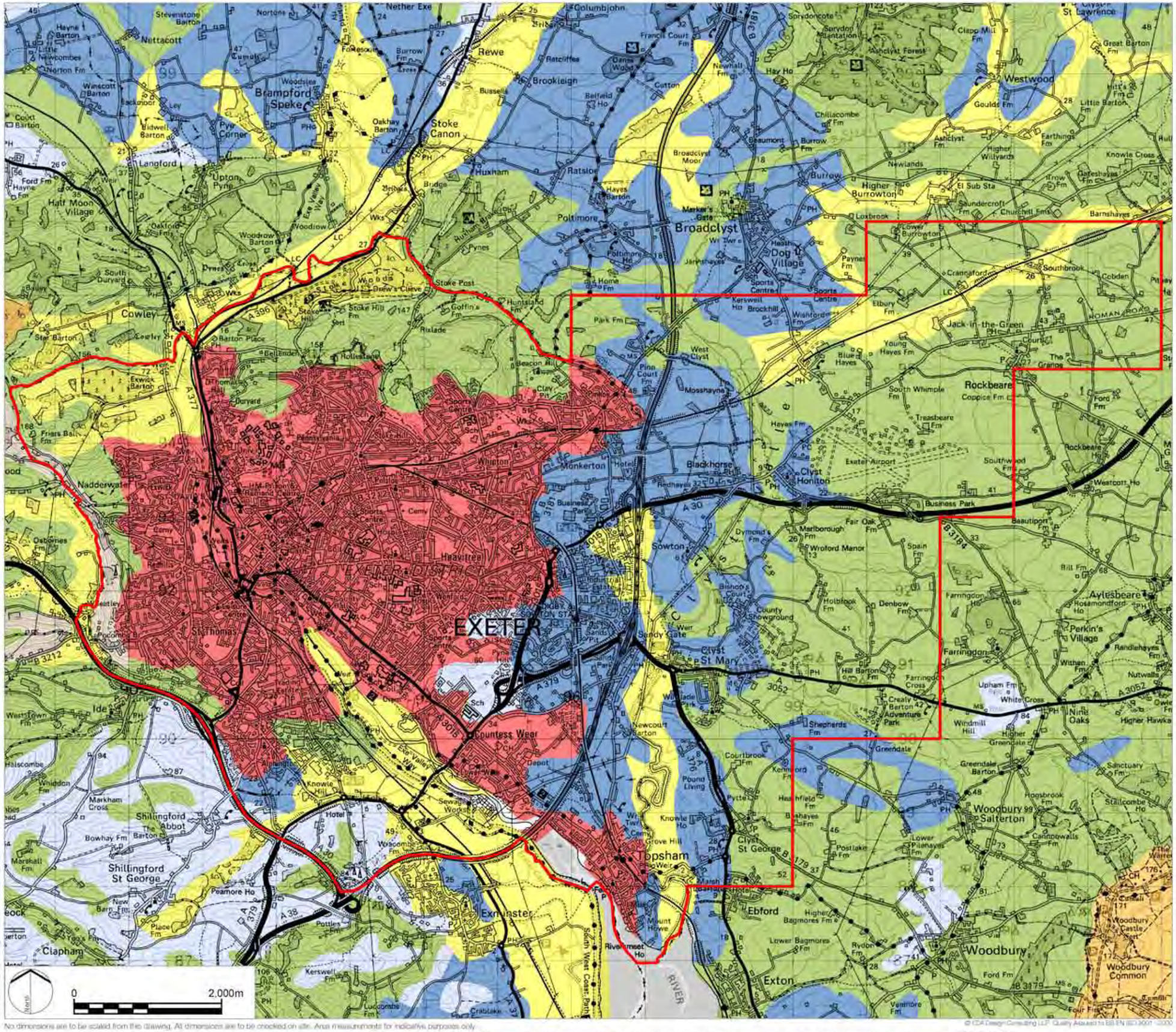

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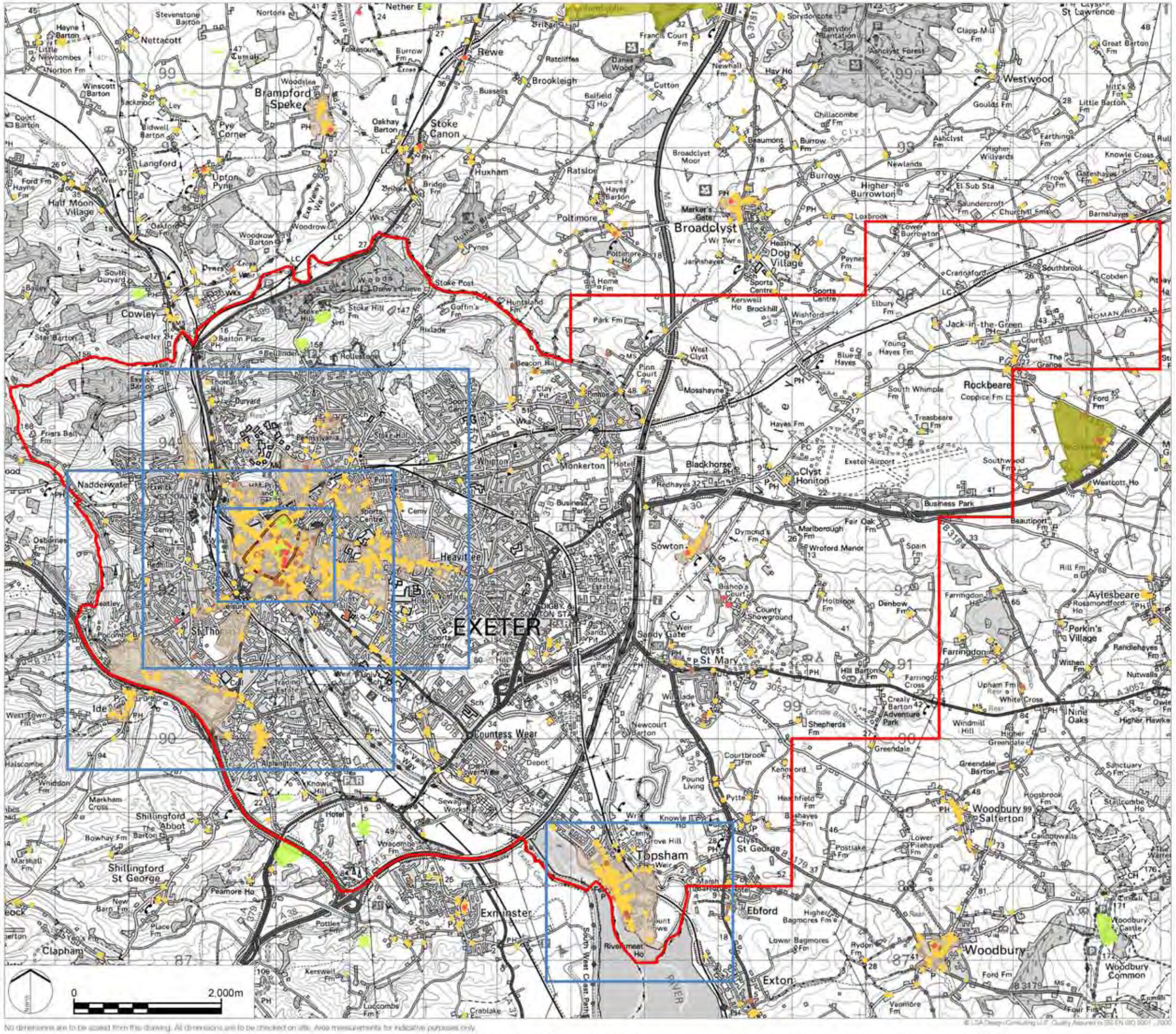
Figure 19: Agricultural Land Classification

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0019		



Legend

- Core Study Area
- Scheduled Monument
- Listed Building (Grade Indicated) I II* II
- Registered Historic Park/ Garden
- Conservation Area
- City Wall (Exeter)
- Approximate areas covered in greater detail on Figure 20B

Note: Data correct as of Autumn 2007.
Data illustrated is not definitive and reference should be made to the relevant Local Planning Authority or English Heritage for up-to-date information.

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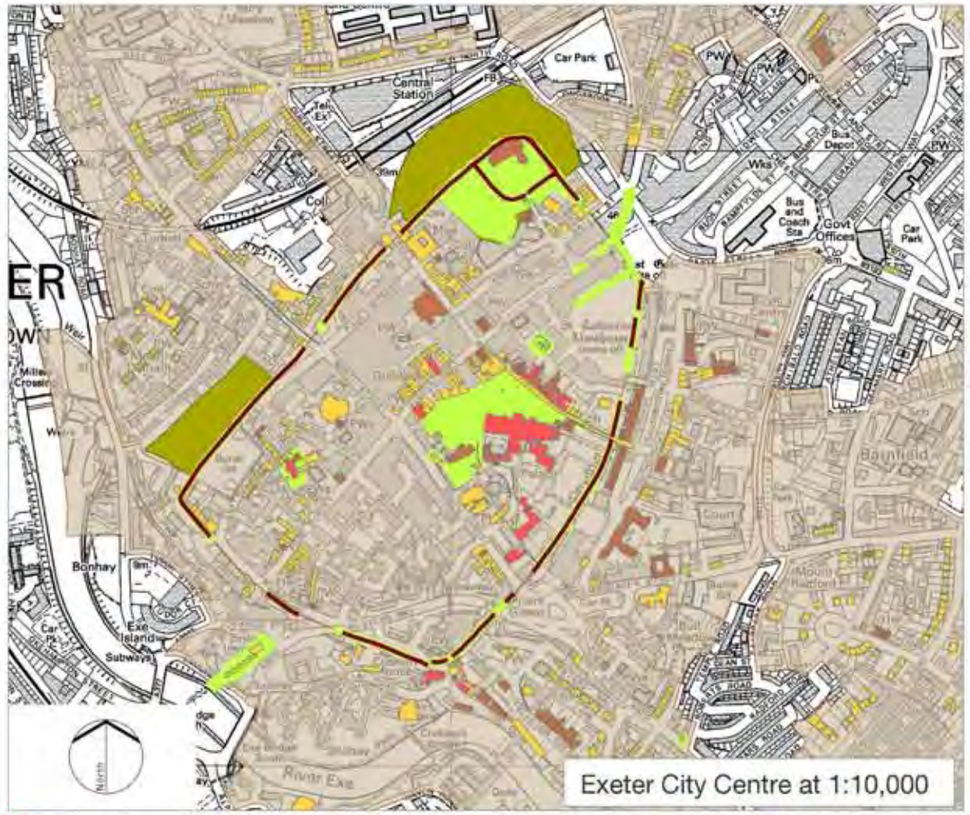
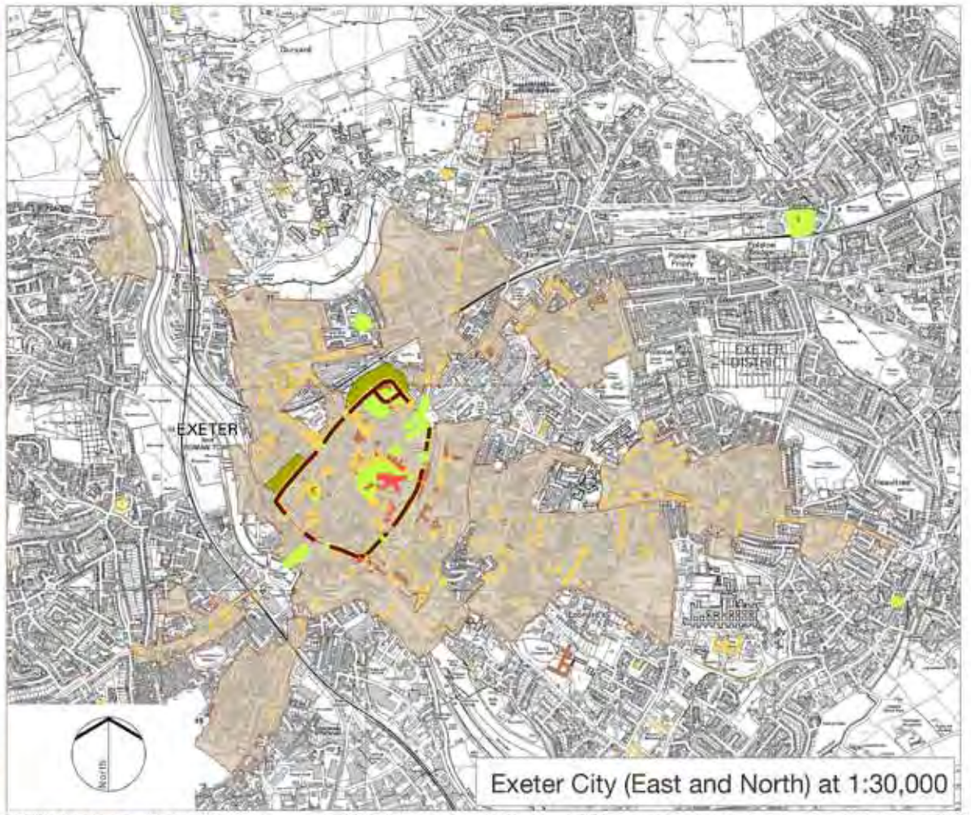
Figure 20A: Cultural Heritage (Core Study Area)

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0020A		

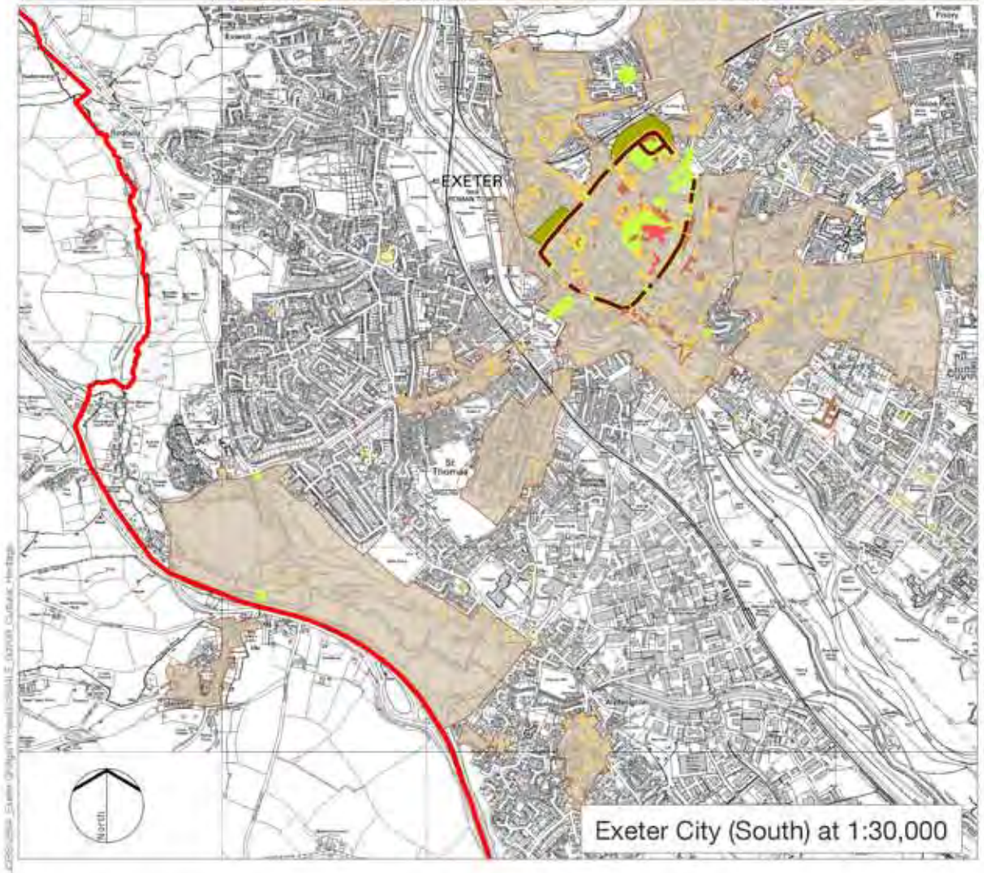
Source: Ordnance Survey, Project Advisory Group & English Heritage

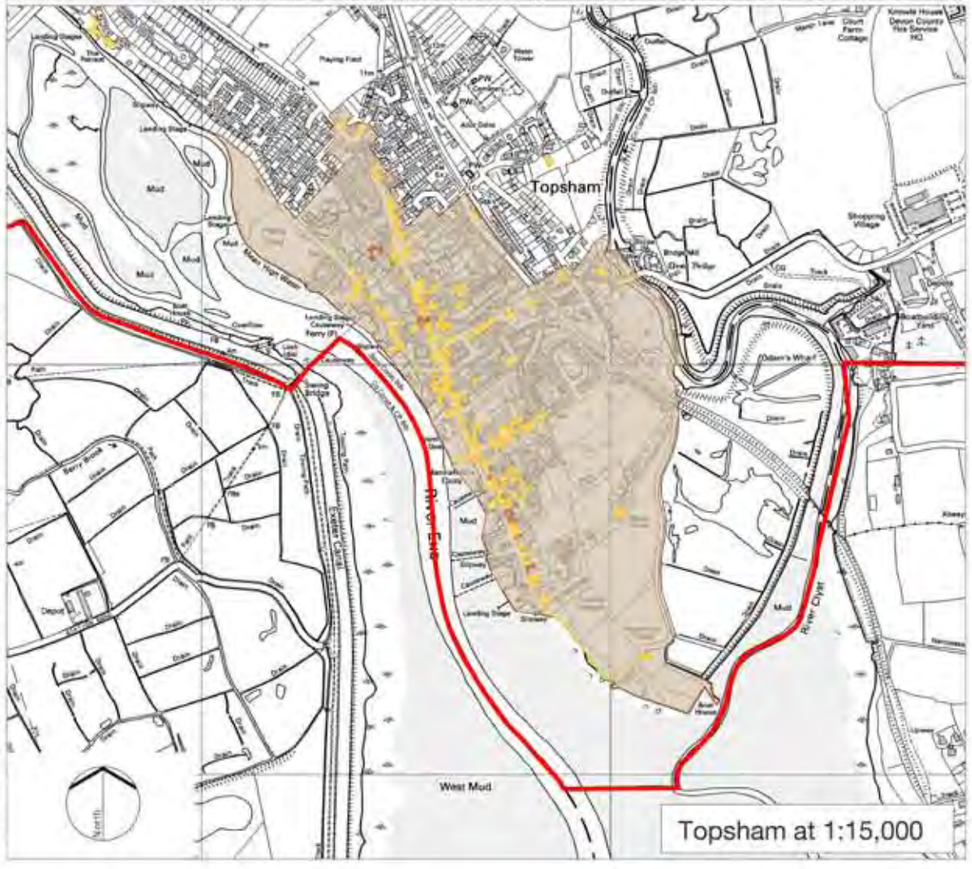




Legend

- Core Study Area
- Scheduled Monument
- Listed Building (Grade Indicated) I II* II
- Registered Historic Park/ Garden
- Conservation Area
- City Wall (Exeter)





Note: Data correct as of Autumn 2007.
Data illustrated is not definitive and reference should be made to the relevant Local Planning Authority or English Heritage for up-to-date information.

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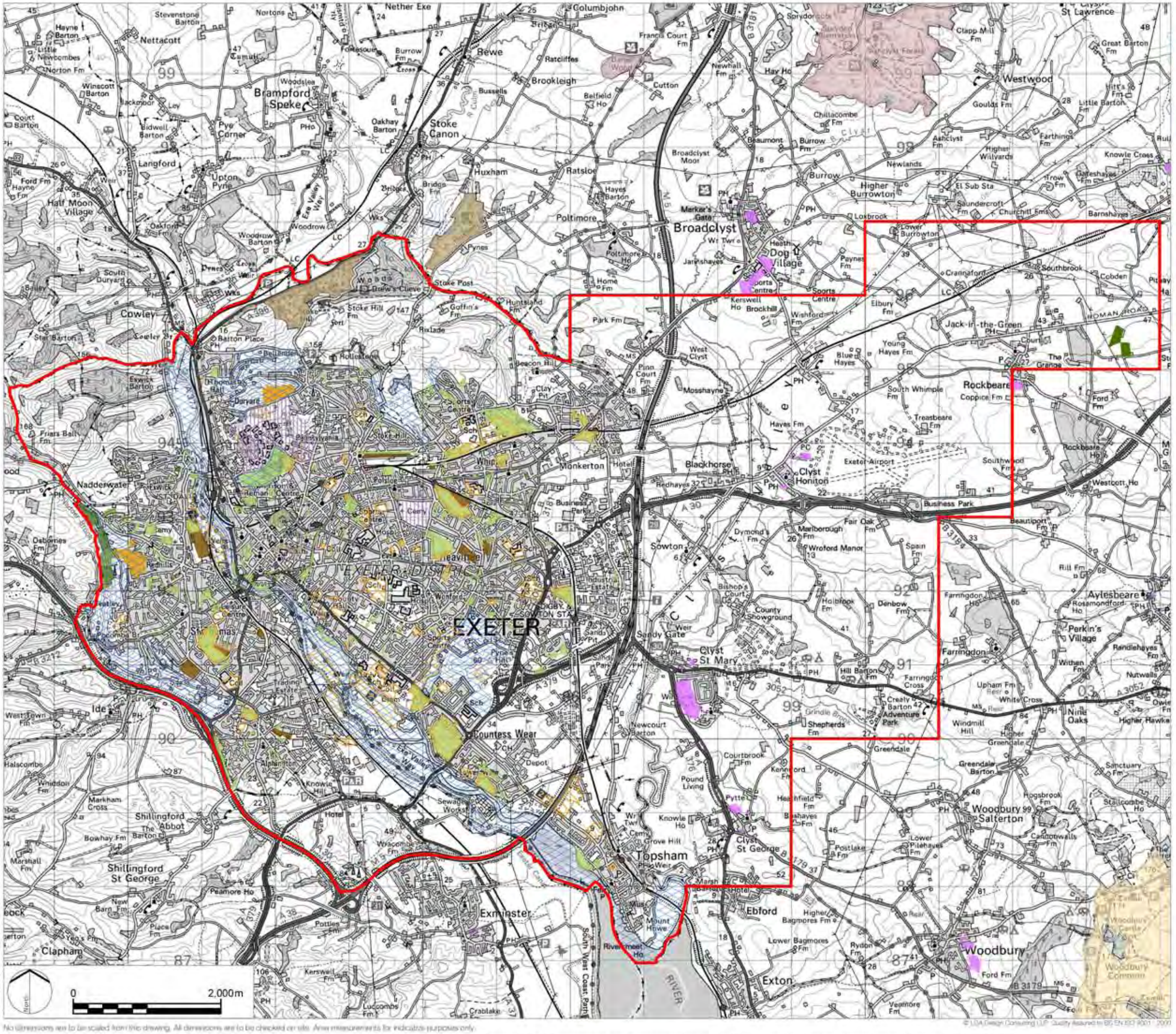
Figure 20B: Cultural Heritage (Local historic centres)

DATE	March 2009	DRAWN	RP
SCALE	Varies	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0020B		

Source: Ordnance Survey, Process Advisory Group & English Heritage



No dimensions are to be scaled from this drawing. All dimensions are to be checked on site. Area measurements for indicative purposes only.

Legend

- Core Study Area
- Historic Park and Garden (Exeter local register)
- Playing Field (Exeter)
- Valley Park (Exeter)
- Allotments (Exeter)
- Open Space (Exeter)
- Recreation Areas/Open Space and Allotments (East Devon and Teignbridge)
- Local Nature Reserve
- Woodland Grant Scheme/ Woodland Trust Sites (with access or recreation function)
- CROW Act Section 16 Dedicated Land*
- CROW Act Designated Access Land**
- 24 hr Accessible National Trust Land

Note: For the purpose of this assessent, open space is identified as areas of accessible green space including parks, access land, allotments and woodlands with an access and/or recreation function.

*CROW Section 16 Dedicated Land - This dataset contains polygons showing areas of land that have been dedicated as Access Land under the CROW Act 2000 by landowners.

**CROW Designated Access Land-This dataset has been created to show areas of 'access land' designated under the Countryside and Rights of Way Act 2000. It shows both Open Country and Registered Common Land combined into a single layer with areas of Section 28 restrictions, military byelaw, race courses and aerodromes removed.

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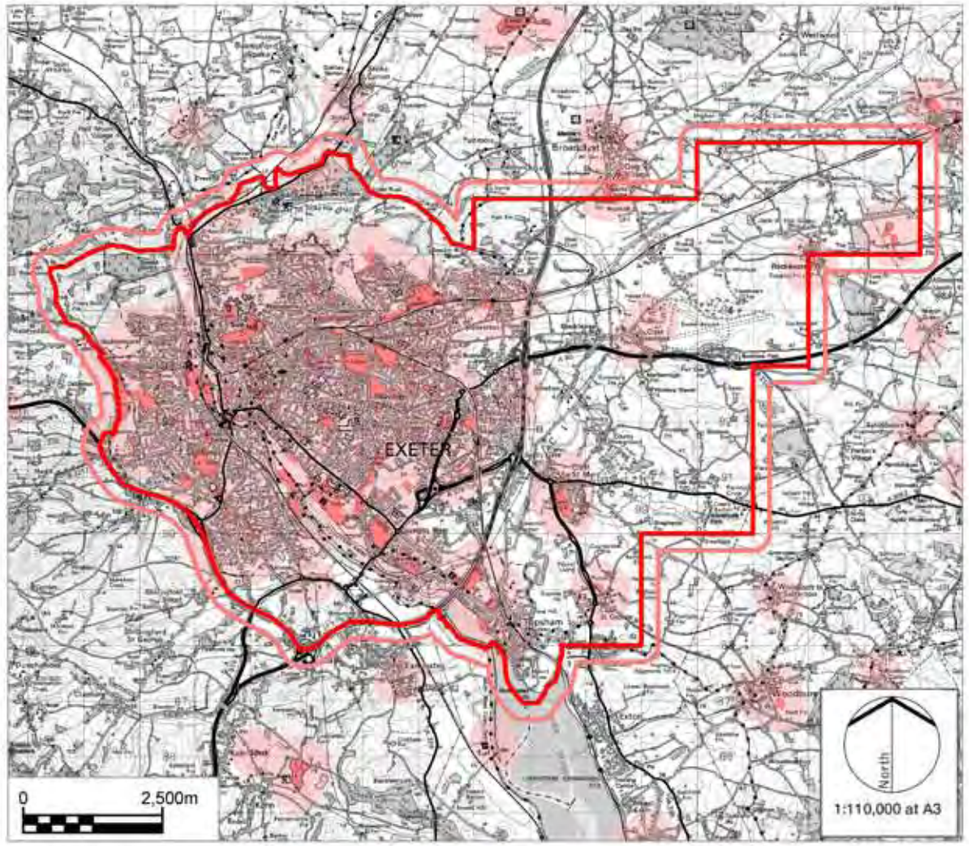
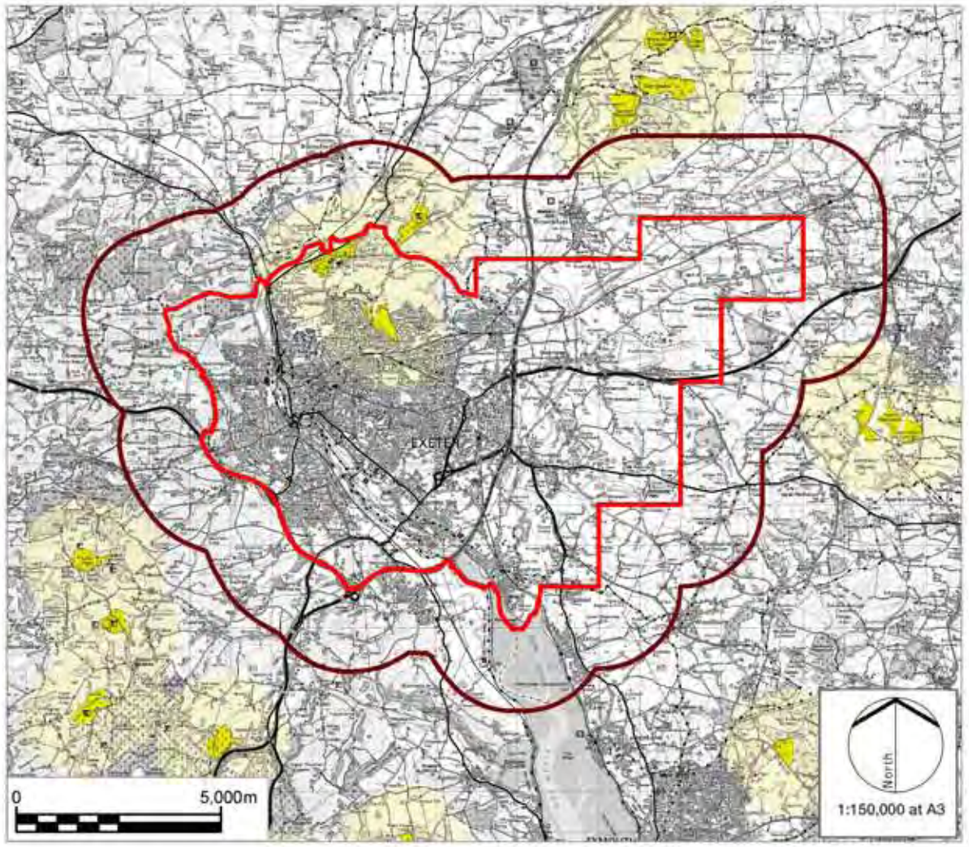
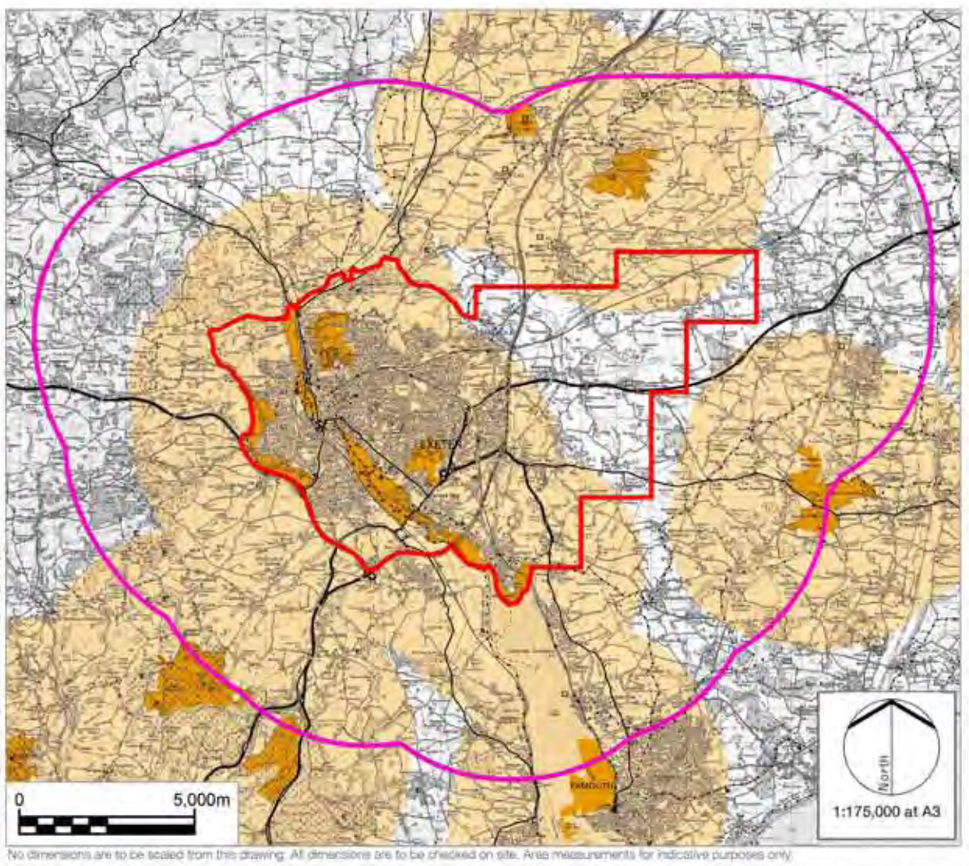
Figure 21: Open Space

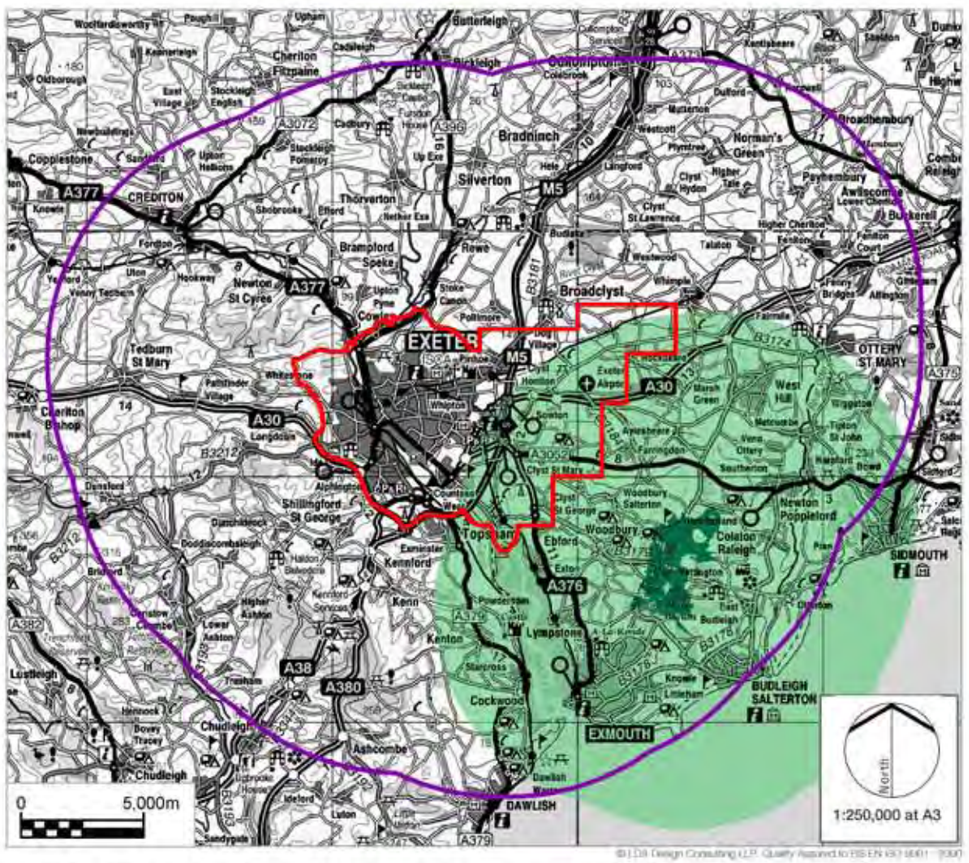
DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO	2594LE/0021		

Source Ordnance Survey, Project Advisory Group, National Trust & Natural England.









Legend

🟥	Core Study Area
🟥	300m Buffer of Core Study Area
🟥	2km Buffer of Core Study Area
🟪	5km Buffer of Core Study Area
🟪	10km Buffer of Core Study Area
🟥	Pocket Park or Local Park (Open Space of less than 20 ha)
🟥	400m Buffer of Open Space of less than 20 ha
🟨	District Park (Open Space between 20 ha - 60 ha)
🟨	1.2km Buffer of Open Space of between 20 ha - 60 ha
🟧	Metropolitan Park (Open Space between 60 ha - 400 ha)
🟧	3.2km Buffer of Open Space of between 60 ha - 400 ha
🟩	Regional Park (Open Space Over 400 ha)
🟩	8km Buffer of Open Space over 400 ha

Note: For the purpose of this assessent, open space is identified as areas of accessible green space including parks, access land, allotments and woodlands with an access and/or recreation function.

Catchment Analysis follows guidance set out in the Mayor of London Guide to Preparing Open Space Strategies (June 2003) Areas identified as deficient in each category should be regarded as indicative only.

Catchment Anlaysis has not factored in issues such as severance and inaccessibility.

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Figure 22: Open Space Deficiency Analysis

DATE	March 2009	DRAWN	RP
SCALE	Varies. Refer to individual maps	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0022		

Source: Ordnance Survey, Project Advisory Group, National Trust & Natural England

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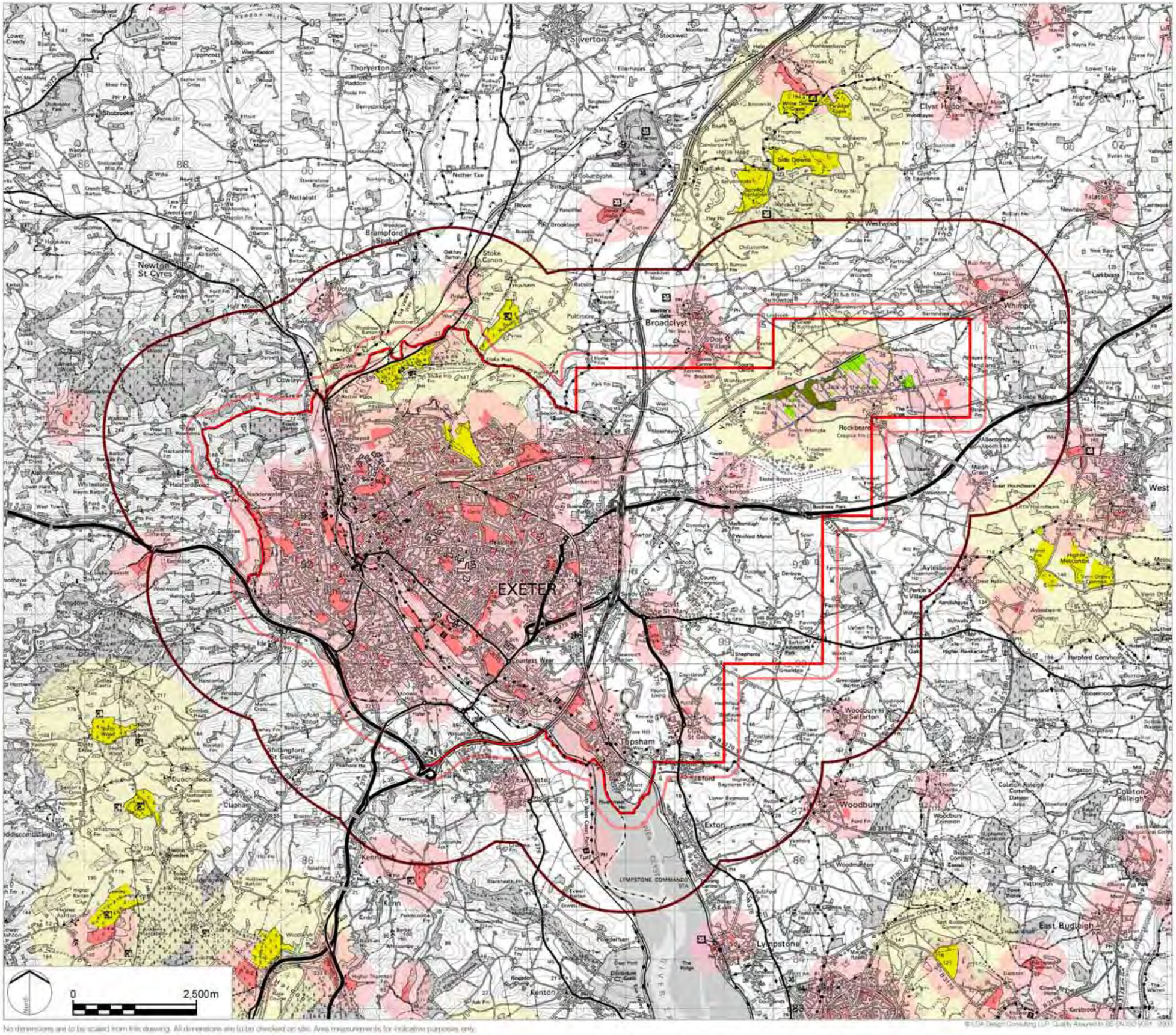

Legend

- Core Study Area

Cranbrook New Community

- Cranbrook New Community Site Area*
- Proposed Country Park (32ha)*
- Proposed Open Space* (Informal Open Space, Outdoor Sports and School Fields all under 20ha in extent)

Deficiency Analysis

- 300m Buffer of Core Study Area
- 2km Buffer of Core Study Area
- Pocket Park or Local Park (Open Space of less than 20 ha)
- 400m Buffer of Open Space of less than 20 ha
- District Park (Open Space between 20 ha - 60 ha)
- 1.2km Buffer of Open Space of between 20 ha - 60 ha

Note: For the purpose of this assessment, open space is identified as areas of accessible green space including parks, access land, allotments and woodlands with an access and/or recreation function.

Catchment Analysis follows guidance set out in the Mayor of London Guide to Preparing Open Space Strategies (June 2003) Areas identified as deficient in each category should be regarded as indicative only.
Catchment Anlaysis has not factored in issues such as severance and inaccessibility.

*Cranbrook New Community open space and site boundary digitised from East Devon New Comunity Sport and Recreation Provision Drawing (David Lock Associates, November 2006) and Draft Principles - Country Park Drawing 1679/305 A (Cooper Partnership June 2006). Existing Strategic Landscape not Included

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Figure 23: Open Space Deficiency Analysis Incorporating the Cranbrook New Community

DATE	March 2009	DRAWN	RP
SCALE	1:75,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/023		

Source: Ordnance Survey & Present Advisory Group

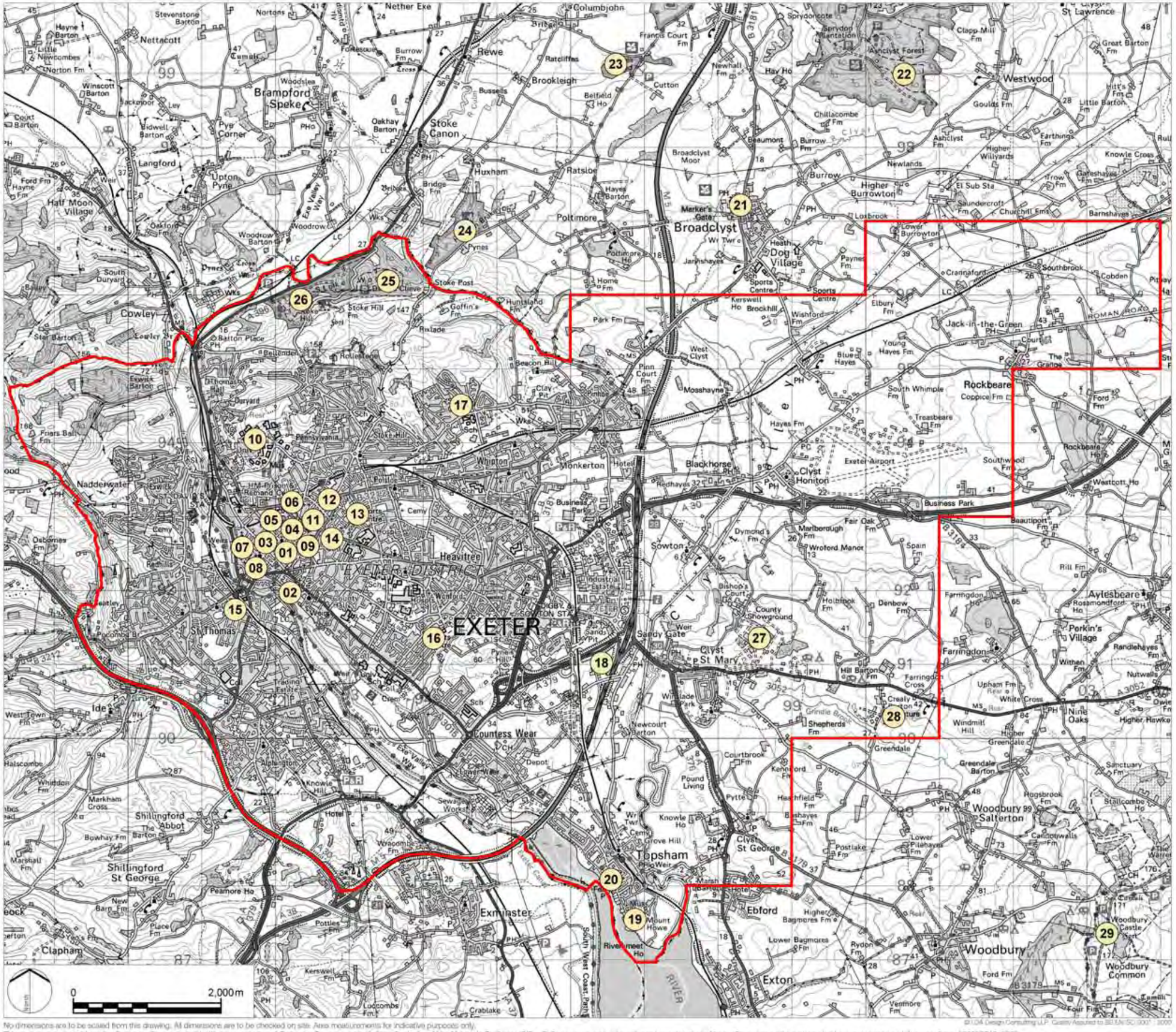

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Figure 24: Tourism and Recreation

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0024		

Source: Ordnance Survey, Project Advisory Group

Legend

- Core Study Area
- Motorway
- 'A' Class Road and Trunk Road
- 'B' Class Road
- Other Road
- Railway Line
- Rail Station
- Bus Interchange
- Bus Stop
- Exeter Airport
- Electricity Sub Station
- Major Electricity Pylons

0 2,000m

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Figure 25: Strategic Infrastructure

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0025		

*CROW Section 16 Dedicated Land - This dataset contains polygons showing areas of land that have been dedicated as Access Land under the CROW Act 2000 by landowners.

**CROW Designated Access Land-This dataset has been created to show areas of 'access land' designated under the Countryside and Rights of Way Act 2000. It shows both Open Country and Registered Common Land combined into a single layer with areas of Section 28 restrictions, military byelaw, race courses and aerodromes removed.

0 2,000m

Legend

- Core Study Area

Definitive Rights of Way

- Bridleway
- Footpath
- Other routes with public access

National Trail / Long Distance Route

- East Devon Way
- Exe Valley Way/South West Coast Path

Local Routes

- Exeter Green Circle

Sustrans Routes

- Sustrans (National and Regional)

Access Land

- *CROW Designated Access Land
- **CROW Section 16 Dedicated Land
- 24 hr Accessible National Trust Land

Environmental Stewardship Agreements

- Higher Level Agreement

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Figure 26: Rights of Way

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0026		

Extent of Historic Settlement, Modern Settlement and Industry derived from Devon County Council Historic Landscape Character Assessment (2005). Development since publication will have altered the extents of built up areas.

JCA 148

JCA 149

0 2,000m

North

Legend

Core Study Area

Landscape Designations

- Area of Outstanding Natural Beauty (AONB)
- Coastal Preservation Area Teignbridge District
- Area of Great Landscape Value (AGLV) East Devon and Teignbridge Districts
- Green Wedge East Devon District
- Landscape Setting Exeter City Council

National Landscape Character

- Countryside Character Area Boundary
  JCA 148 - The Culm
  JCA 149 - Devon Redlands

Local Landscape Character
(Based ongoing programme of character assessment in Devon)

- Wooded Hilltops and Ridges
- Lower Rolling Farmed and Settled Slopes
- Lowland Plains
- Unsettled Farmed Valley Floors
- Pebble Bed Heaths
- Upper Farmed and Wooded Slopes
- Unsettled Marine Levels
- Historic Settlement (Derived from Devon County Council HLC, 2005)
- Modern Settlement and Industry (Derived from Devon County Council HLC, 2005)

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Figure 27: Simplified Landscape Character and Designations

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0027		

Source: Ordnance Survey, Project Advisory Group & Natural England

Data derived from Devon County Council Historic Landscape Character Assessment (2005)

Development and change may have altered the extents of various Historic Landscape Character Types, particularly in and around built up areas.

Legend

Core Study Area

Settlement

- Historic Settlement
- Modern Settlement and Industry
- Public Complex

Field Patterns

- Modern Enclosures
- Post Medieval Enclosures
- Barton Fields
- Medieval Enclosures and Strip Fields

Land Use/ Land Cover

- Mining/ Quarrying
- Military Complex and Airfield
- Park/ Garden
- Recreation
- Woodland (includes Coniferous Plantations and Ancient Woodland)
- Mud, Sand and Rock
- Water
- Water Meadows
- Orchards and Horticulture
- Rough Ground
- Marsh

0 2,000m

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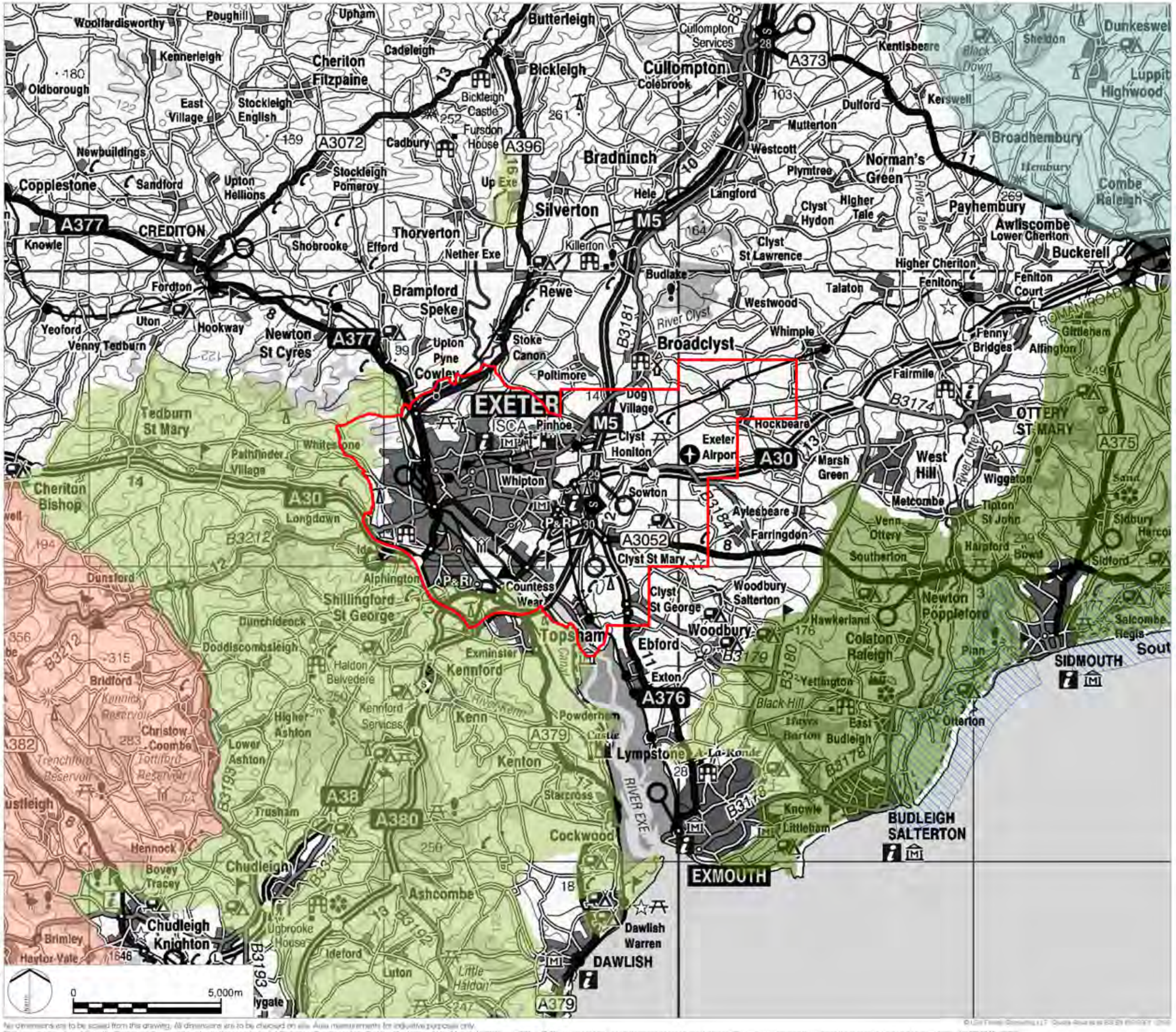
Figure 28: Simplified Historic Landscape Character (Modern HLC Layer)

DATE	March 2009	DRAWN	RP
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0028		

Source: Ordnance Survey & Private Advisory Group



Legend

▭	Core Study Area
🟦	Blackdown Hills AONB
🟩	East Devon AONB
🟧	Dartmoor National Park
🟩	Area of Great Landscape Value (AGLV) East Devon and Teignbridge Districts illustrated
▨	East Devon Heritage Coast

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Figure 29: Strategic Landscape Context

DATE	March 2009	DRAWN	RP
SCALE	1:125,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO	2594LE/0029		

Ashclyst Forest

Stoke Hill

Beacon Hill

Exeter Airport

Sowton

Cathedral

Historic Quay

Bishops Court

Clyst St. Mary

Countess Wear

M5 Viaduct

Topsham

Woodbury Common

0 2,000m

North

Legend

- Core Study Area
- Permeable urban edge
- Hard edge to urban area
- Principal river corridors
- Significant ridgelines/landform features
- Memorable landscape features/landmarks
- Key middle and long distance views

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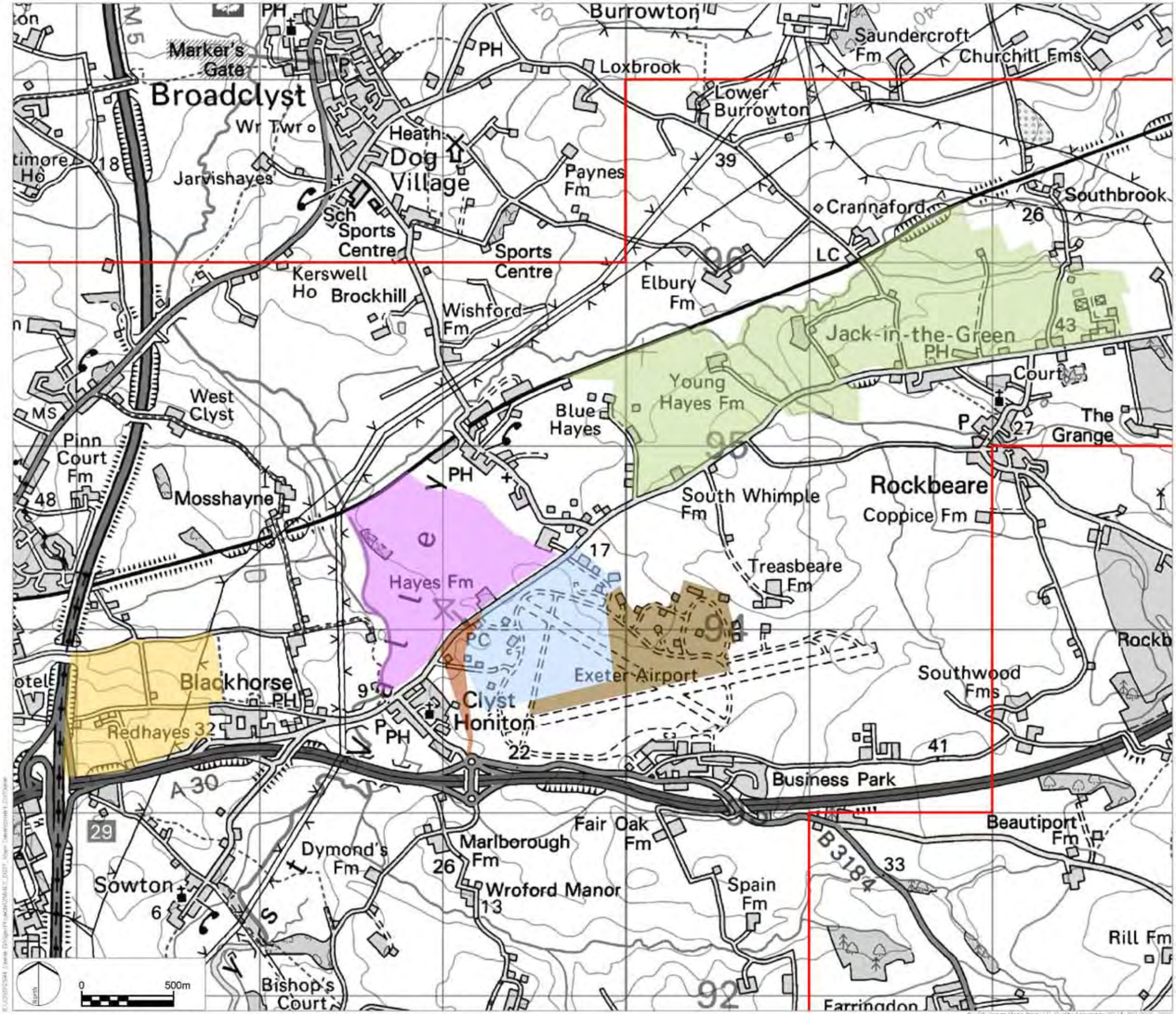
Figure 30: Visual and Perceptual Character

DATE	March 2009	DRAWN	SMC
SCALE	1:50,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0030		

Source: Ordnance Survey, Project Advisory Group & Intermap Technologies Inc



Legend

- Core Study Area
- Science Park
- Inter-modal Rail Freight Facility and Distribution Centre
- Clyst Honiton Bypass
- Skypark
- Exeter Airport New Terminal
- Cranbrook New Community

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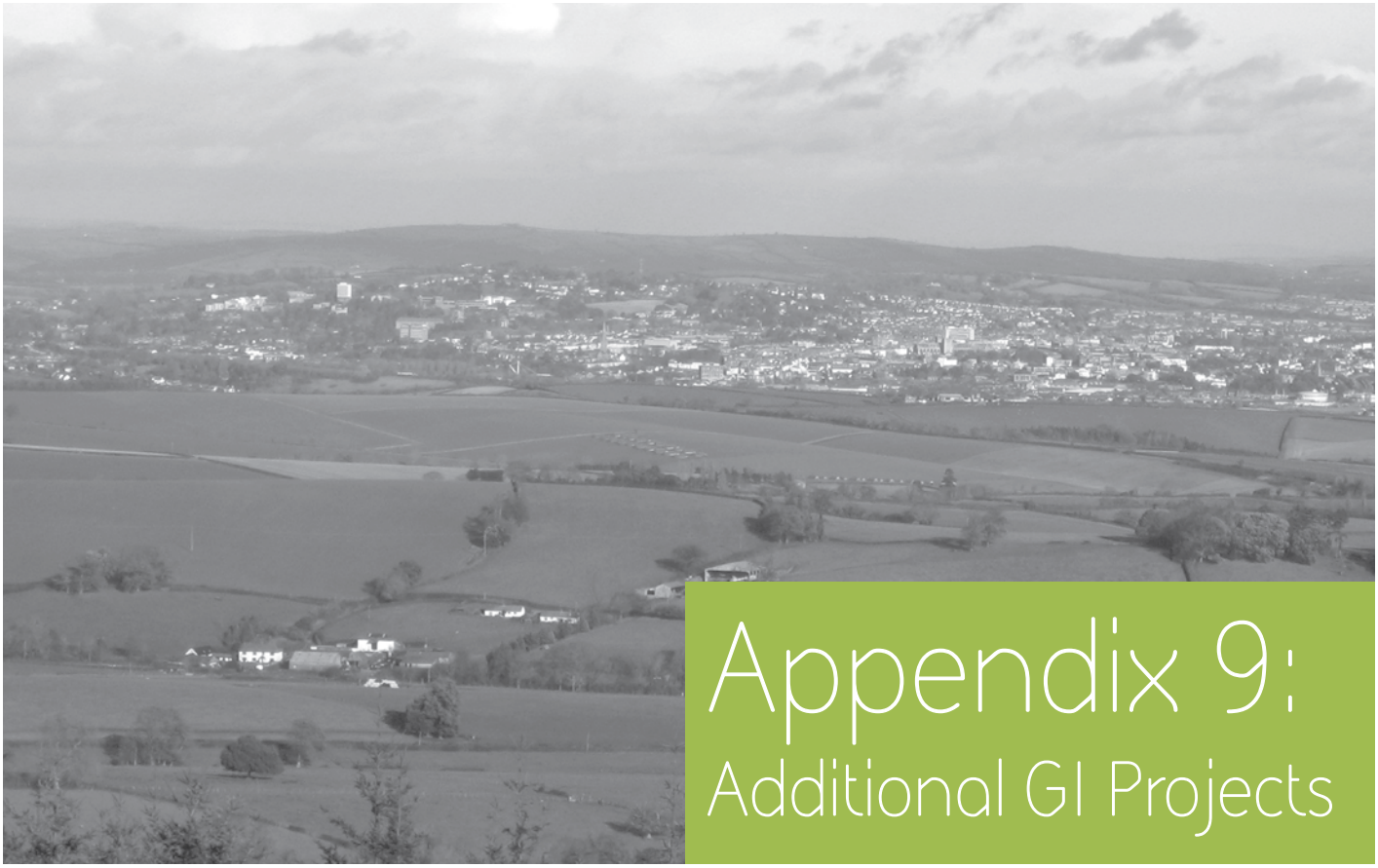
Figure 31: Major Development East of Exeter

DATE	March 2009	DRAWN	RP
SCALE	1:20,000 at A3	CHECKED	IH
STATUS	FINAL	APPROVED	FO
DWG.NO.	2594LE/0031		



Appendix 9:
Additional GI Projects

Several GI Projects were identified in consultation with the project Advisory Group, stakeholders and consultees at a workshop held in February 2008. Only those projects that were given highest priority or that offered greatest potential for multi-functionality have been taken forward and developed in this study. However, other projects identified in the workshop, or that may arise in the future, should also be considered for delivery.

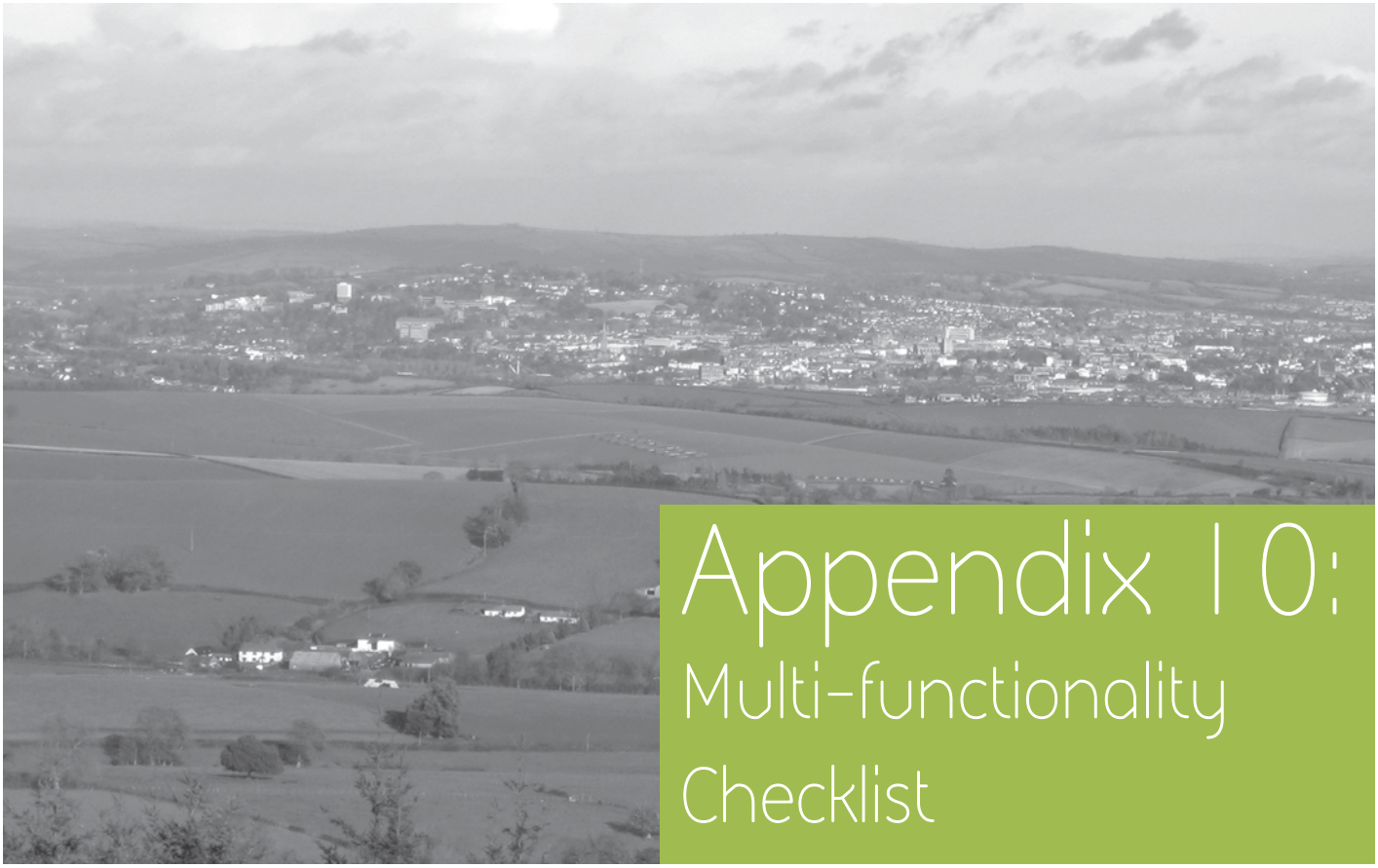
The list below, extracted from the February 2008 Workshop Report, outlines the range of projects initially identified:

- Community Forest to the north of Exeter.
- *Enhancement of the Clyst valley.
- *Connecting the new communities to surrounding countryside.
- Country pub routes.
- *Viewpoints / topographs incorporated into movement networks/ parks.
- *Extending links through the Clyst valley further northwards.
- *Looking at destinations beyond the core study area boundary for GI to link with.
- *Clyst valley – major opportunity – blank canvass – lots of scope for improving access and

biodiversity & a building block for a primary route north-south to link in with national networks. A flat area – good local opportunity for cycling & walking.

- Early wins – Topsham – iconic wetland area – tourist destination – local resource.
- Meteorological station.
- *Landmark gateway to the north – arrival gateway to Exeter – locally distinctive & innovative.
- *M5 – significant barrier which will require a range of crossing points.
- Importance of creating local destinations
- Importance of linking in with existing green space provision & improving quality of existing green spaces.
- *Importance of creating 'honey pots' to draw people away from more sensitive/pressurised areas such as the estuary and the Pebblebed Heaths.
- Old Rydon Lane over the M5 into the Clyst Valley (links Ludwell Valley Park out of the city).
- Pinhoe – ridge line route (cycle/footpath) over the M5 via Pinn Court Farm Access route, south of old A30.
- *Lower Clyst (floodplain enhancement associated with the Freight Terminal) with link to Ashclyst Forest.
- Re-development of city centre would be an opportunity to promote GI to a wide audience.

Note: items marked (*) have been taken forward and developed directly or indirectly as part of this study either as the Biodiversity Network (Chapter 5), Sustainable Movement Network (Chapter 6) or GI Projects (Chapter 7).



Appendix 10: Multi-functionality Checklist

An effective delivery process needs to demonstrate early progress and deliver benefits to the community and stakeholders. Some of the aspirations set out in this document will take some time to deliver whilst others will be able to happen relatively quickly. In addition to those GI Project ideas set out previously, the identification of new GI Projects should be encouraged. A checklist is presented below to help identify projects that deliver GI aims and objectives.

House Keeping	
Project Name:	
Project Location:	
Short Description of the Project Proposal	
Capital Cost:	
Funding Required:	
Projected Annual Maintenance Budget:	

Strategic GI Delivery Criteria	Score
1. Does the proposed project lie within or immediately adjacent to a Sub-Regional Green Infrastructure Corridor? (score 20 for yes)	
2. Does the proposed project lie within or immediately adjacent to a Local Green Infrastructure Corridor? (score 15 for yes)	
Strategic GI Criteria Sub Total	

Sustainable Movement Network Delivery Criteria	Score
3. Does the proposed project deliver a portion of the Primary Movement Network? (score 20 for yes)	
4. Does the proposed project deliver a portion of the Secondary Movement Network? (score 15 for yes)	
5. Does the proposed project deliver a portion of the Local Movement Network? (score 10 for yes)	
Movement Network Delivery Criteria Sub Total	

Biodiversity Network Delivery Criteria	Score
6. Does the proposed project deliver a portion of the Biodiversity Network Habitat Reservoirs? (score 15 for yes)	
7. Does the proposed project deliver a portion of the Biodiversity Network Habitat Links? (score 15 for yes)	
Biodiversity Network Delivery Criteria Sub Total	

Criteria for Delivery of GI Strategic Aims	Score
8. Bridge to the Country. Does the project deliver new and improved open spaces and access routes in continuous green corridors linking Exeter to its surrounding rural landscape? (score 10 for yes)	
9. Gateway to the Town. Does the project enhance the character and identity of urban fringe landscape and promote the quality of Exeter, and act as a gateway into the city? (score 10 for yes)	
10. Health Centre. Does the project create more accessible and attractive urban and rural environments close to where people live and work and the framework necessary to improve recreation and leisure facilities and promote healthier lifestyles? (score 10 for yes)	
11. Classroom. Does the project deliver the facilities and/or diversity of experiences necessary to act as an outdoor classroom, with an emphasis on environmental and rural studies? (score 10 for yes)	
12. Recycling and Renewable Energy Centre. Does the project have a role in the sustainable management and recycling of waste, water and pollution? (score 10 for yes)	
13. Productive Landscape. Does the project facilitate and encourage small scale urban and community farm initiatives, and access to locally produced food and fuel? (score 10 for yes)	
14. Cultural Legacy. Does the project protect and enhance features and patterns that display the evolution of urban and rural areas and improve opportunities to celebrate and understand the past, local cultural identity and historic figures and events. (score 10 for yes)	
15. Place for Sustainable Living. Does the project contribute to the creation of sustainable communities? (score 10 for yes)	
16. Engine for Regeneration. Does the project provide a mechanism for raising community confidence and skills in managing community spaces and facilities and bring about environmental improvements in the locality? (score 10 for yes)	
17. Nature Reserve. Does the project protect, enhance, create and link habitats to raise ecological value of the area and species persistence in urban and rural locations? (score 10 for yes)	
GI Strategic Aims Sub Total	

Summary	Score
Strategic GI Criteria Sub Total	
Movement Network Delivery Criteria Sub Total	
Biodiversity Network Delivery Criteria Sub Total	
GI Strategic Aims Sub Total	
Total GI Multi-functionality Checklist Score	

East Devon District Council
Exeter City Council
Teignbridge District Council
Natural England

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