

Colchester Borough Green Infrastructure Strategy

Final Report



Prepared for Colchester Borough Council by Land Use Consultants
August 2011

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(Note: appendices have been compiled as a separate volume)

Acknowledgements

This Green Infrastructure Strategy was steered by a client group led by Beverley McClean (Colchester Borough Council) and involving Adrian Gascoyne (Essex County Council), Liam McKarry and Bob Penny (Colchester Borough Council), and Catherine Whitehead and Rachel Penny (Natural England).

The strategy was prepared by Land Use Consultants (LUC), working with the client group. LUC's team comprised Kate Ahern, Ed Manning, Louise Tricklebank, Melanie Downes, Katy Lock and Graham Savage, Andrew Tempany, Fearghus Foyle, Alex Massey, Matthew Tickner, Matthew Parkhill and Andrew Kirk (Heritage Cost Consultants). In addition, consultation was undertaken with a range of stakeholders, whose contributions are gratefully acknowledged. However, the views in this report are those of Land Use Consultants.

1 Introduction

AIMS AND OBJECTIVES OF THE PROJECT

- I.1 Land Use Consultants (LUC) was commissioned by Colchester Borough Council (CBC) to develop a Green Infrastructure Strategy for the Borough, covering the period to 2025.
- I.2 The work has been undertaken within the following three stages:
- Stage 1: Review of existing data
 - Stage 2: Analysis and preparation of the Strategy
 - Stage 3: Formulation of an Action Plan
- I.3 This report covers all 3 stages of the process and sets out the Strategy as well as the Action Plan for delivering Green Infrastructure in the Borough, and is structured as follows:

GI Context and evidence: Chapter 2 of this report sets out the planning policy and context for the Green Infrastructure Strategy. Chapter 3 describes the baseline characteristics and the key green infrastructure issues for the Borough.

GI Analysis: Chapter 4 applies the Accessible Natural Greenspace Standard to the Borough and Chapter 5 analyses the deficiencies and needs for Green Infrastructure in the Borough.

GI Network: Chapter 6 presents the vision for Green Infrastructure in the Borough along with the GI network and an overview of the projects.

GI Delivery Plan: Chapter 7 gives details about the delivery of the GI network, prioritises the projects and details next steps.

Stakeholder Involvement

- I.4 The involvement of stakeholders has been a key requirement throughout all stages of the project. An initial stakeholder workshop was held at the outset (November 2010) to:
- validate the evidence base;
 - help to develop the overall GI vision;
 - understand local issues and opportunities;
 - consider how GI opportunities might be delivered.
- I.5 A second workshop was held partway through the project at the analysis stage when a draft GI network had been prepared (17 February 2011). The

purpose of this workshop was to:

- validate and refine the draft GI vision;
- validate opportunity and deficiency analysis for the GI Action Zones;
- validate and refine draft projects within the GI Action Zones and the GI network 'vision maps';
- discuss options for project prioritisation and identify possible approaches to delivery and future governance.

1.6 A list of individuals and organisations represented at the workshops is provided in Appendix 2, together with a report of main workshop outcomes.

1.7 The draft Colchester GI Strategy was issued for consultation to all members on the LDF database. The consultation comments were reviewed and assessed by CBC, and used to refine the final strategy.

Scope of this GI Strategy

1.8 The GI Strategy covers the whole Borough, with more detailed consideration given to the Growth Areas around and within Colchester town. The study area is shown on **Figure 1.1** overleaf.

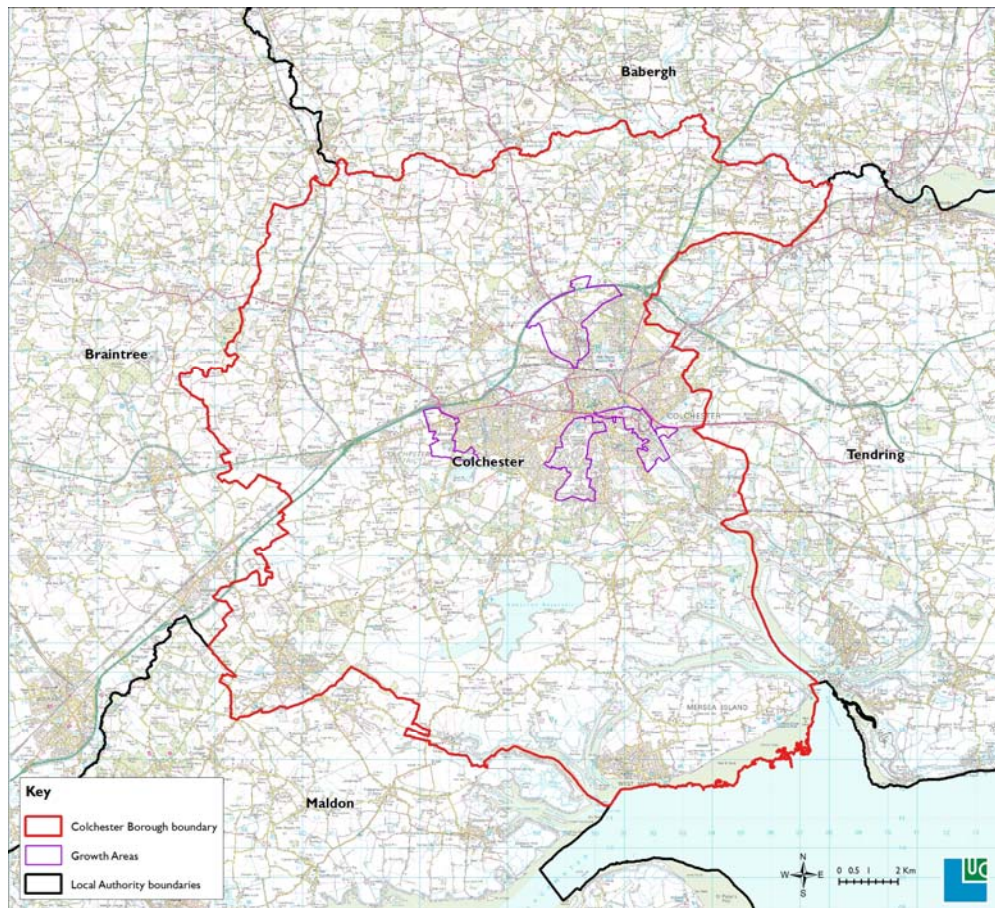


Figure I.1: Study Area

- I.9 The Strategy draws on the rich and varied environment of the Borough, including the river valleys, woodland and arable land, estuarine salt marsh, the coast and urban green spaces. It has a particular focus on opportunities for green infrastructure improvements within the Growth Areas of Colchester Town, where most future development will take place. The Strategy looks for synergies with green infrastructure initiatives in neighbouring authorities and to build on the framework provided by the Haven Gateway Green Infrastructure Strategy.
- I.10 By its nature and area of coverage this GI Strategy document is necessarily strategic and high level. It establishes a broad spatial framework for green infrastructure proposals and spatial interventions which respond to issues around green infrastructure functionality, need and demand. Clearly such a document cannot concentrate on site specific planning and design or the precise spatial articulation of proposals (whether discrete, identified projects or action zones, green corridors or linear routes) other than broad zones in which they can happen. To do otherwise would depart from the essential messages of this GI Strategy and would reduce its effectiveness as a focussed tool to inform spatial planning policy for green infrastructure, and as a high

level framework for Development Management/to inform more site specific decisions through individual Area Action Plans and Masterplanning Supplementary Planning Documents (SPDs). Detailed considerations occur later at the site specific level when feasibility studies are undertaken and when more detailed site issues and constraints are known. Site design can interpret appropriate messages in this strategy. Having a GI strategy in place can help ensure that individual small scale GI projects and sites are informed by and contribute to wider GI strategy. The relationship between high level green infrastructure planning (this GI Strategy) and finer grain GI planning and design work is summarised in **Figure 1.2** overleaf. This diagram shows the function and purpose of the GI Strategy, clearly stating that it is a high level framework, with interpretation and testing of the concepts to occur later, through feasibility and design stages of projects.

Aims of this Green Infrastructure Strategy

- I.11 This GI Strategy aims to:
- Identify high quality accessible green infrastructure within a comprehensive landscape structure;
 - Identify ecological networks and links between habitats to improve quality of life, help address climate change and improve access to habitats and greenspace; and
 - Deliver community well-being which complements and supports good quality housing and substantial economic growth planned for the Borough.
- I.12 The Strategy is based on a thorough understanding of Colchester Borough – its character, heritage, natural assets and the recognised needs of its residents – and how this is likely to evolve over time in the context of future growth and a changing climate.

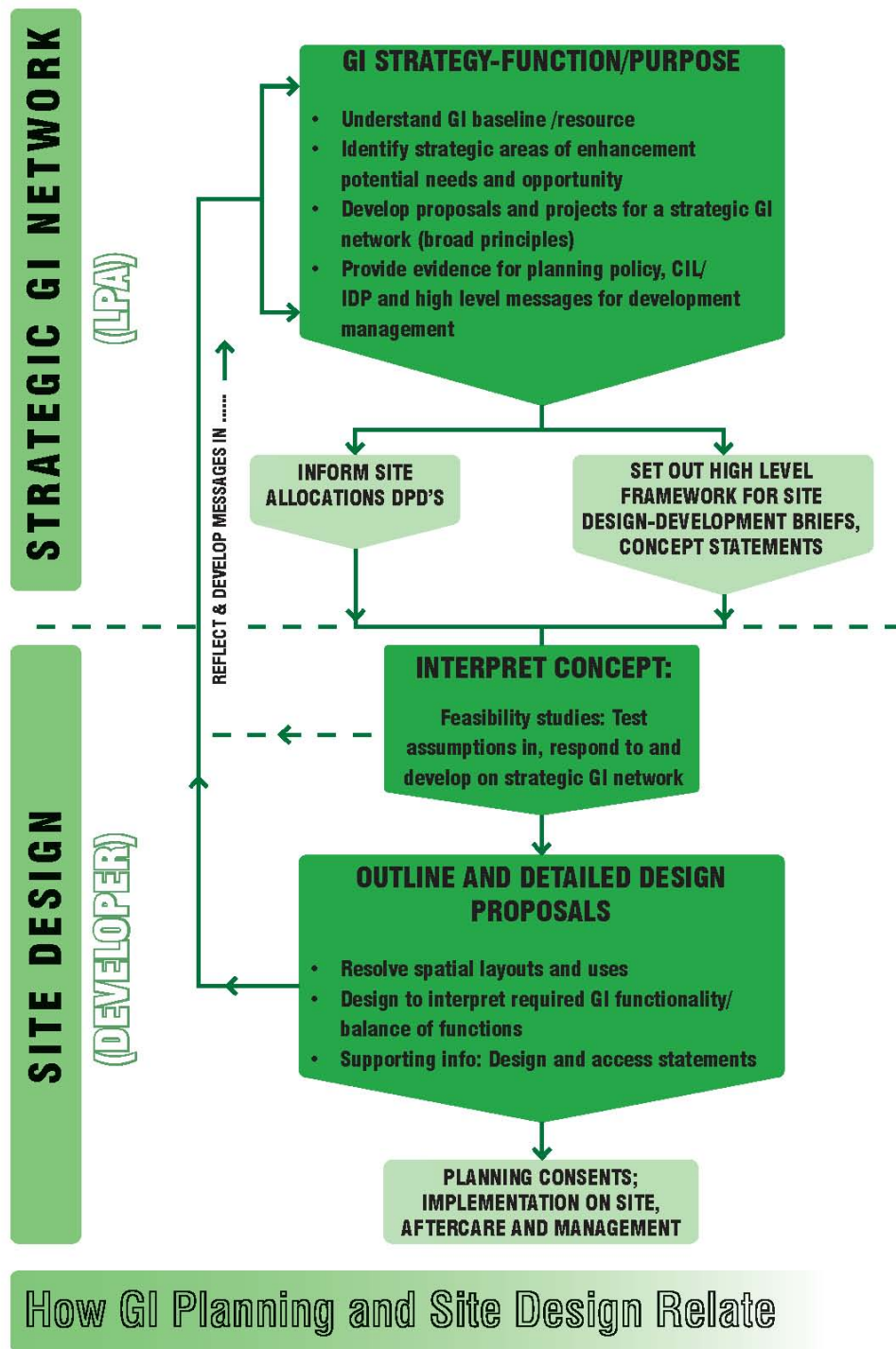


Figure I.2: The relationship between the GI Strategy and site specific GI planning and design

SOME TERMS AND DEFINITIONS

I.13 Green infrastructure is defined in Planning Policy Statement 12 (PPS12): Local Spatial Planning¹ as:

" a network of multi-functional greenspace, 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."

I.14 This definition is amplified by the one provided by the Town and Country Planning Association², which refers to the concept of a strategically planned and managed network of greenspaces and other environmental features. Natural England define GI similarly³, although they also refer to its relationship to place-making:

'Its design and management should ... respect the character and distinctiveness of an area with regard to habitats and landscape types'.

I.15 The Natural England definition also makes reference to the multiple spatial scales in which green infrastructure should operate⁴, from whole landscape scale to specific sites, public and private, including gardens. Even at this micro level, such spaces can contribute to urban biodiversity and to the green infrastructure network. Green infrastructure therefore represents all aspects of the physical environment between and around urban areas, considering not just spaces but also linear routes, whether for access (recreation, health or commuting) or for wildlife connectivity. Further discussion of these aspects of the green infrastructure network in Colchester can be found in Chapter 6.

I.16 The green infrastructure definition and definitions of components of green infrastructure, such as green corridors, are explored more fully in the glossary at **Appendix I**. In addition terms defined specifically for this study are set out in the box overleaf.

¹ Department of Communities And Local Government, 2008 **Planning Policy Statement 12: Creating strong safe and prosperous communities through local spatial planning**

² TCPA, 2008 **The essential role of green infrastructure in Eco Towns: Eco Towns green infrastructure worksheet**

³ Natural England, 2009 **Green Infrastructure Guidance**

⁴ Ibid

Terms and definitions derived specifically for the Colchester Borough Green Infrastructure Strategy

Action zones The framework developed in this Green Infrastructure Strategy for organising and articulating the proposed Green Infrastructure Network and component projects, and for assessing functional GI provision and need. Action zones are based on distribution and assessment of common character and green infrastructure assets. The Action Zones derived for this Green Infrastructure Strategy are set out at **section 5**.

Green corridors Tracts of undeveloped land in otherwise predominantly urban space, which may be of variable width but sufficient to encourage biodiversity, the movement of wildlife, enhancement and restoration of landscape character and connectivity. Green corridors may also, where desirable and possible, incorporate 'green transport links', encourage leisure use and 'green exercise'. A Green Infrastructure Strategy often establishes the principle of both multi functional green corridors and where there may be appropriate opportunities for green transport links. The precise disposition and composition of uses and functions supported by corridors will necessarily be a matter for more detailed site investigation, site planning and design, e.g. that a GI Strategy establishes strategic first principles only.

Linear routes Green infrastructure proposals/projects which relate to provision of access and connections which are primarily for people. Such routes may either be strategic linear routes, that is cross district links or forming part of a wider GI network, or local linear routes, that is linking sites and features at district level.

Non spatial green infrastructure projects Green infrastructure projects which are of an interpretative, academic or conceptual nature e.g. thematic or educational initiatives or those associated with advocacy or promotion of the green infrastructure concept. Projects which do not involve capital works to deliver.

Spatial green infrastructure projects Green infrastructure projects which have a spatial expression/footprint. Often capital works projects although they can also cover land management initiatives and revenue (management) activity.

GI Context and Evidence Base



2 Policy and strategy context

- 2.1 A review of national and local planning policy sets the context for this GI Strategy. The review helps ensure that the GI Strategy fully addresses the challenges and opportunities posed by proposed growth and opportunities for GI to meet and deliver a range of policy objectives. The policy review also informs the development of functional objectives by which to evaluate green infrastructure proposals devised in the strategy. The key policy documents are described below.

PROMOTION OF GREEN INFRASTRUCTURE IN PLANNING POLICY

National Planning Policy

Existing policy

- 2.2 At a national level, the existing Sustainable Communities Plan includes the following commitments:
- *“We will promote more and better publicly accessible green space in and around our communities, for example through the creation of new country parks and networks of green spaces within towns and cities.”*
 - *“We will enhance green belt land by encouraging local authorities to identify ways to raise its quality and utility, for example by improving its accessibility, biodiversity and amenity value.”*
- 2.3 Natural England similarly recognises in its Strategic Direction⁵ document that the natural environment is under pressure from development across the country and that whilst new developments usually make some provision for green space; it is often of limited natural value. Green infrastructure contributes significantly to the four strategic outcomes Natural England has identified in this document, namely:
- A healthy natural environment.
 - People are inspired to conserve and value the natural environment.
 - Sustainable use of the natural environment.

⁵ Natural England (2008) Strategic Direction 2008-2013

- Decisions that collectively secure the future of the natural environment.
- 2.4 Natural England’s recent Green Infrastructure Guidance⁶ recognises the important contribution green infrastructure can make to these outcomes and also to the place-making agenda, whereby spatial planning decisions are embedded in and informed by an understanding of character.
- 2.5 Current planning policy for planning and the environment is set out in Planning Policy Statements (PPS) and Planning Policy Guidance (PPG):

Planning Policy Statements. GI is referenced in the following National Planning Policy statements:

PPS 1: Creating Sustainable Communities sets out the Government’s objectives with regard to sustainable communities. Its objectives include protecting and enhancing the natural and historic environment, the quality and character of the countryside, and existing communities (the framework for the ‘place-making’ agenda to which GI can contribute).

Planning and Climate Change - Supplement to PPS1 states that in requiring which land and sites are suitable for development, planning authorities should have regard for the contribution to be made from existing and new opportunities for open space and green infrastructure to urban cooling, sustainable drainage systems, and conserving and enhancing biodiversity.

PPS 3: Housing requires that borough housing plans should have regard to any local greening or design plans such as green infrastructure strategies. The document also sets out some clear principles to guide local development, including ensuring dominant landscape/ecological features are retained as is any significant biodiversity value.

PPS 5: Planning for the Historic Environment aims to ensure that the historic environment and its heritage assets should be conserved and enjoyed for the quality of life they bring to this and future generations, and includes ensuring the positive contribution of such heritage assets to local character and sense of place is recognised and valued.

PPS 9: Biodiversity and Geological Conservation seeks to protect and enhance designated and non-designated habitats and species, and restore fragmented habitat networks, suggesting that ‘this may be done as part of a

⁶ Natural England, LUC (2009) Green Infrastructure Guidance NEI76

wider strategy for the protection and extension of open space and access routes such as canals and rivers, including those within urban areas’.

PPS 12: Local Spatial Planning states that core strategies ‘should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area, taking account of its type and distribution. It requires that the evidence also covers who will provide the infrastructure and when it will be provided.

PPS 25: Development and Flood Risk seeks to develop opportunities offered by new developments to mitigate flood risk, particularly through maximising the benefits of green infrastructure for flood storage, SUDs, and re-creating functional floodplains, all of which have landscape and biodiversity benefits.

PPG 17: Planning for Open Space, Sport and Recreation requires local authorities to assess local needs for open space, sports and recreational facilities. Opportunities for new provision and potential increased usage of existing provision through better design, management and maintenance are to be identified. It also recognises the importance of green infrastructure in nature conservation and air quality.

Consultation Paper on a new PPS: Planning for a Natural and Healthy Environment seeks to consolidate guidance set out in several existing PPS, including PPS 9 and PPG 17, and includes several relevant policies for the natural environment and recreation, including a specific green infrastructure policy which makes reference to the provision of a multifunctional green infrastructure network.

A Strategy for England’s Trees, Woods and Forests Defra 2007

- 2.6 The National Strategy for England’s Trees, Woods and Forests (2007) identifies five aims relating to the future of England’s trees woods and forests: providing a sustainable resource for now and future generations; ensuring tree stock are resilient and adaptable to climate change; protecting and enhancing the cultural and amenity values of trees and woodland; increasing the contribution that trees, woods and forests can make to quality of life; promoting and improving markets for sustainable woodland products and ecosystem services where this will deliver identifiable public benefits. The strategy is supported by a five-year Delivery Plan which focuses on establishing evidence, strategic direction and programmes that will help co-ordinate regional and local delivery.

Trees in Towns

2.7 *Trees in Towns II* is a national survey of England's urban trees and their management commissioned by the Office of the Deputy Prime Minister (ODPM) in February 2004. This report recognises the important role urban trees have in creating sustainable communities, providing numerous aesthetic, social and health benefits. The overall aim of the project was to provide up-to-date information on the national urban tree stock and urban tree management by local authorities.

Trees in Towns II highlights a need for more consistent standards of tree management at a city scale. To encourage this, it recommends ten targets that all English local authorities could try to achieve within the next five years: Encouraging planning decisions that ensure that new developments incorporate walking, cycle routes and public transport services at the initial planning stages;

- To have at least one specialist tree officer.
- To obtain at least £15,000 in external funding for the Local Authority tree programme over the next five years.
- To develop and implement a comprehensive tree strategy.
- To undertake a Best Value Review of the Local Authority's tree programme.
- To install a computerised tree management system.
- To ensure that at least 40% of the Local Authority's tree maintenance work is done on a systematic, regularly scheduled cycle.
- To ensure that at least 90% of all the Local Authority's newly planted trees, excluding woodland plantings, receive systematic post-planting maintenance until they are established.
- To establish a programme, within the next five years, that will ensure every TPO is reviewed on a specified cycle.
- Every Local Authority that has a planning function to have a comprehensive Supplementary Planning Guidance document relating to trees and development.
- Every consent to work on protected trees to be monitored regularly and enforcement action take where necessary.

Town and Country Planning Act 1990

- 2.8 Section 197 states that it is the duty of the local planning authority to ensure that appropriate provision is made for preservation and planting of trees in any planning permission granted.
- 2.9 Section 198 gives the local authority the power to make tree preservation orders (TPO) if it appears expedient in the interests of amenity to make provision for the preservation of trees or woodlands in their area.

Other issues of relevance in relation to trees and forestry

- 2.10 National Forestry Policy is currently being reviewed by the Independent Forestry Panel, with panel proposals expected in Spring, 2012.
- 2.11 The Forestry Commission has produced an advocacy document setting out the case for tree planting in relation to both national and local level planning⁷

Future policy direction

- 2.12 The Government has committed to publish and present to Parliament a simple and consolidated national planning framework covering all forms of development and setting out national economic, environmental and social priorities. Future workstreams for planning and environment of relevance to green infrastructure include delivering the Government's commitment to:
- *maintain the Green Belt, Sites of Special Scientific Interest and other environmental protections, and create a new designation to protect green areas of particular importance to local communities, as part of the Localism Bill; and*
 - *take forward the findings of the Pitt Review to improve our flood defences, and prevent unnecessary building in areas of high flood risk.*

Regional Planning Policy

- 2.13 The most recent regional policy for green infrastructure is set out in the East of England Plan 2008 -2021 (adopted 2008). Policy ENVI recognises the importance of planning for a multi-functional green infrastructure for an improved and healthy environment. It identifies 'assets of regional significance for the retention, provision and enhancement of green infrastructure', which includes the Dedham Vale AONB and the Stour estuary. Current national

⁷ Forestry Commission England, 2010, **The case for trees in development and the urban environment**. Available from: www.forestry.gov.uk/thecasefortrees

policy is for Regional Spatial Strategies be abolished however, with planning responsibilities to be devolved to local planning authorities.

Local Planning Policy

- 2.14 Colchester Borough Local Development Framework is at an advanced stage. The Core Strategy was adopted at the end of 2008, and the Site Allocations and Development Policies DPDs were adopted in October 2010. A Supplementary Planning Document is currently being prepared for North Colchester. A Supplementary Planning Document is being developed for North Station and there are plans to produce one for Stanway. A number of Development Briefs are also being prepared for the Growth Areas in the Borough.

The Core Strategy

- 2.15 The Core Strategy sets out the vision for the future development of Colchester Borough up to 2021. The following objectives are particularly relevant to the Green Infrastructure Strategy:
- Provide the necessary community facilities and infrastructure to support new and existing communities;
 - Provide excellent and accessible health, education, culture and leisure facilities to meet the needs of Colchester's growing community;
 - Promote active and healthy lifestyles and strive for excellence in education and culture;
 - Reduce the Borough's carbon footprint and respond to the effects of climate change;
 - Improve streetscapes, open spaces and green links to provide attractive and accessible spaces for residents to live, work and play;
 - Provide excellent public transportation, walking and cycling connections between centres, communities and their needs;
 - Protect and enhance Colchester's natural and historic environment, countryside and coastline.

Growth

- 2.16 The Borough will continue to experience substantial growth, with 19,000 new homes to be provided from 2001- 2023, alongside new employment, community facilities and transport infrastructure.
- 2.17 Nearly 90% of future housing growth will be centred within and on the edge

of Colchester Town, in the following locations:

- Town Centre (2000 homes)
- North Growth Area (6200 homes, including 2200 greenfield allocations, as well as employment, transport and community infrastructure)
- East Growth Area (2600 homes in the former harbour area, a regeneration area)
- South Growth Area (3000 homes)
- Stanway Growth Area (1800 homes, including 800 greenfield allocations)

2.18 The Core Strategy sets out the numbers for these Growth Areas, and further detail is provided in the Site Allocations DPD and specific SPDs for each of the Growth Areas.

Green infrastructure

2.19 Policy ENV I of the Core Strategy is the most relevant to this GI strategy. Policy ENV I (Environment) aims to conserve and enhance Colchester's natural and historic environment, countryside and coastline. In particular, developments that have an adverse impact on Natura 2000 sites or the Dedham Vale Area of Outstanding Natural Beauty will not be supported.

2.20 To the south of the Borough, the Coastal Protection Belt is afforded protection from development in recognition of the open and rural nature of the area, historic features, sites of nature conservation importance and wildlife habitats.

2.21 Policy ENV I supports the networks of green links and spaces:

“The network of strategic green links between the rural hinterland, river corridors, and key green spaces and areas of accessible open space that contribute to the green infrastructure across the Borough will be protected and enhanced.”

and supports development that will benefit the natural environment:

“Development will be supported at appropriate locations to improve public access, visual amenity and rehabilitate the natural environment. Development will need to minimise and mitigate adverse impacts on river, coastal and ground water quality”

2.22 Core Strategy policies PR1 and PR2 outline the Council's strategic position on the provision of open space across the Borough up to 2021. The Core Strategy highlights the important functions that existing open space, sports facilities and green link networks provide to the people of Colchester by creating opportunities for passive and active recreation, and encouraging participation in healthy active lifestyles.

Site Allocations DPD

- 2.23 The Site Allocations DPD was adopted in October 2010. It carries forward the majority of the 'open spaces or potential open spaces' which were identified in the Local Plan as necessary to meet the needs of the Borough in line with the National Playing Field Association standard of 6 acres per 1000 population along with a further acre per 1000 population for informal recreation, which equates to 2.83 hectares per 1000 population. Work undertaken in the PPG17 study to inform the LDF led to the development of new quantity, quality and accessibility standards for each typology of open space as set out in the Colchester Parks and Greenspaces Strategy (2008). These have been taken forward through the Development Policies DPD, which states that new developments will be expected to provide open space which at least meets or exceeds the minimum standards set out in the DPD (see below).
- 2.24 The Proposals Map identifies both public and private open space. Allocations have been rolled forward from the Local Plan and new designations at Tiptree and Stanway included. In North Colchester land previously 'proposed' for open space is no longer included but a Supplementary Planning Document for the area is expected to show where new strategic open space will be provided within the urban extension.
- 2.25 The Site Allocations DPD also includes a number of policies for each Growth Area setting out the amount and type of development required in each area, including some elements for green infrastructure such as specific provision of new open spaces and recreational facilities, as well as preservation and maintenance of some specific heritage features. The SPDs being prepared for the North Growth Area Urban Extension and Stanway Growth Area will detail how additional open space will be delivered.

Development Policies DPD

- 2.26 Development Policies DPI5 (Retention of Open Space and Indoor Sports Facilities) and DPI6 (Private Amenity Space and Open Space Provision for New Residential Development) seek to protect existing open space and sports facilities, and ensure that new development provides adequate private amenity spaces as well as publicly accessible open spaces as part of new development. It states that 'at least 10% of the gross site area should be provided as useable open space'. Where the Council accepts commuted sums in lieu of open space, the commuted sums will be used to provide additional

open space or to improve existing open space in the locality of the development.

Open Space, Sport and Recreation SPD

- 2.27 The Open Space, Sport and Recreation Supplementary Planning Document (SPD) was adopted in July 2006. It sets out the level of financial contributions or commuted sums needed to ensure that the new standards for the different types of open space and sports facilities are met through new development proposals. Different requirements are set out under the headings of 'Open Space', 'Children's Play', and 'Sport and Recreation'. Decisions about which type of open space is to be provided as part of individual planning applications will be informed by the PPG17 Study and determined by the Council's Development Team. Since the SPD was adopted, further work on open space standards has been undertaken to inform the development of the LDF. This work is set out in the Colchester Parks and Greenspaces Strategy (2008), and includes a set of open space standards based on typologies of open space, as well as new quantity, quality and accessibility standards. These have been taken forward into policy through the Development Policies DPD (see above).

North Colchester Growth Area SPD – Draft

- 2.28 A draft SPD was produced in December 2009 and includes amongst its strategies for the northern Growth Area, a framework for landscape and open space (including corridors, new spaces, and landscaped car parks) and approach to sustainability (including provision of allotments, green roofs, and integration of sustainable drainage systems - SuDS). Myland Parish Council has provided its own set of proposals to Colchester Borough Council in response to the draft SPD. Work on the SPD is ongoing and it is hoped that the document will be ready for adoption in 2012.

OTHER RELEVANT STRATEGIES

Community Strategy

- 2.29 The Sustainable Community Strategy includes a number of priorities to achieve its vision of a sustainable healthy and successful Borough which are relevant to green infrastructure. These include changing travel behaviour and improving transport networks, making Colchester an outstanding visitor destination and celebrating its heritage, culture and leisure activities, promoting healthy lifestyles and creating safer neighbourhoods. The issue of

carbon reduction is also right at the heart of 'Colchester 2020' vision with the aim of reducing Colchester's carbon emissions by 30% by the year 2020.

2.30 Particularly relevant actions from the Sustainable Community Strategy include:

- Encouraging the development of new park and walk schemes with well signed routes into town;
- Encouraging planning decisions that ensure that new developments incorporate walking, cycle routes and public transport services at the initial planning stages;
- Work to change the perception of our heritage to include natural and green spaces by:
- Encouraging the use of green and open spaces and increased involvement of third-sector groups;
- Promoting positive changes to the Local Development Plan to protect our heritage, natural and green spaces.
- Work with partners to continue to encourage a high standard of construction, building, architecture, public art and urban design that complements and enhances the Borough.

Shoreline Management Plan

2.31 The Essex and South Suffolk Shoreline Management Plan covers approximately 550km of coast from Landguard Point in Felixstowe to Two Tree island in the Thames Estuary. The SMP aims to identify the best ways to manage flood and erosion risk to people and to the developed, historic and natural environment. Three of the management units for the strategy are relevant to this GI strategy (Colne Estuary, Mersea Island, and Blackwater Estuary).

2.32 The Essex and South Suffolk Shoreline Management Plan 2 underwent consultation in March 2010. It has since been reviewed and endorsed by the partner authorities and is with Defra for approval under the Habitats Regulations.

2.33 The Consultation draft of the SMP identifies a number of potential sites in the Borough for managed realignment including south of Wivenhoe, Ballast Quay on the west side of the River Colne and sites to the south and west of

Mersea Island.

- 2.34 It is recognised that much of the shoreline, both behind and in front of the defences, is currently protected by national and international designations. In the majority of cases, the draft plan is not expected to significantly affect the ongoing large-scale processes on the estuaries and the coast. The SMP in its current form identifies the potential for approximately 10 hectares a year of intertidal habitat creation for epoch 1 across the whole of the SMP area.
- 2.35 Some of the potential landward realignments will create new intertidal habitats. The SMP seeks long-term, sustainable solutions to coastal flood risk management, and identifies realignment sites based on the vulnerability of defences. Freshwater sites have therefore only been identified for realignment where it is already becoming increasingly technically hard, or prohibitive economically to prevent saline inundation. Where any habitats identified for realignment are designated under international law for their freshwater features, compensation of these sites will be required by the Habitat Regulations in advance of any losses. The relevant partner authorities intend to work with local landowners and other relevant organisations to identify the best sites for mitigation and compensation of lost freshwater habitats, for example through the Regional Habitat Creation Programme.

North Essex Catchment Flood Management Plan

- 2.36 This Environment Agency (EA) plan gives an overview of the flood risk in the North Essex CFMP area and sets out the EA's preferred plan for sustainable flood risk management over the next 50 to 100 years. It includes three sub-areas of relevance to the strategy – 'Colchester' (broadly the urban area), 'Blackwater and Chelmer, Upper Reaches and Coastal Streams' (Mersea and much of the southern part of the Borough below the Roman River is covered by this area), and 'Lower Blackwater, Upper and Mid tributaries and Mid Colne and Stour' (the rest – and majority – of the Borough is within this sub-area). Relevant details of the strategy are set out in the hydrology characterisation chapter (**Chapter 7**).

The Regional Woodland Strategy for the East of England

- 2.37 The Regional Woodland Strategy for the East of England (2003) provides a number of strategies for the enhancement, over 20 years, of the benefits that trees and woodlands bring to the people who live and work in the region. The document is thematic rather than spatial, setting out a strategy and policies for woodlands under the themes of 'quality of life', 'spatial planning',

‘economic development’, ‘renewable energy’, ‘education and learning’, and ‘natural environment’. It is supported by a five-year Action Plan detailing specific actions, who will be involved in their delivery and the resources required under the themes.

Dedham Vale AONB and Stour Valley Management Plan

- 2.38 The Plan covers the period 2010 – 2015 and includes the themes ‘Settlements and People’ and ‘Enjoying the Area’. The value of tourism to the AONB in terms of direct, supplier and income induced expenditure has been calculated at nearly £40 million. Furthermore it is estimated that 599 full time equivalent jobs, equating to 841 jobs are supported by the tourism industry.

EXISTING GREEN INFRASTRUCTURE STRATEGIES OF RELEVANCE TO COLCHESTER

Haven Gateway Green Infrastructure Strategy

- 2.39 The Haven Gateway was awarded Growth Point Status by the previous Government following challenging growth targets set out in the East of England Plan. The Haven Gateway Partnership identified that a key component of achieving sustainability and development in line with the Sustainable Communities Plan will be the sub-region’s ability to deliver green infrastructure. Production of a Green Infrastructure Strategy was a condition of New Growth Point status for the Haven Gateway. The Haven Gateway Green Infrastructure Strategy is supported by a Steering Group of partners comprising local authorities, government agencies, the local wildlife trusts, and Suffolk Coast and Heaths Area of Outstanding Natural Beauty Unit. Suffolk County Council has acted as the lead authority for this project on behalf of the Haven Gateway Partnership.
- 2.40 The Strategy recommends a number of green infrastructure projects for Colchester. These are set out in **Figure 2.1**, below and include the following key elements:
- A network of green corridors throughout the town and wider Borough.
 - Several site-based green infrastructure projects such as a new country park at Westlands.
 - New linkages for pedestrian and cycle networks, including a green bridge between Wivenhoe and Rowhedge.

- Restoration/improvements to river corridors and existing networks.
- 2.41 The Colchester Green Infrastructure Strategy will build on the work undertaken to inform the Haven Gateway Green Infrastructure Strategy, by developing exciting ideas where these are supported, and using others to identify exactly how people would like to see green infrastructure achieved in the Borough.

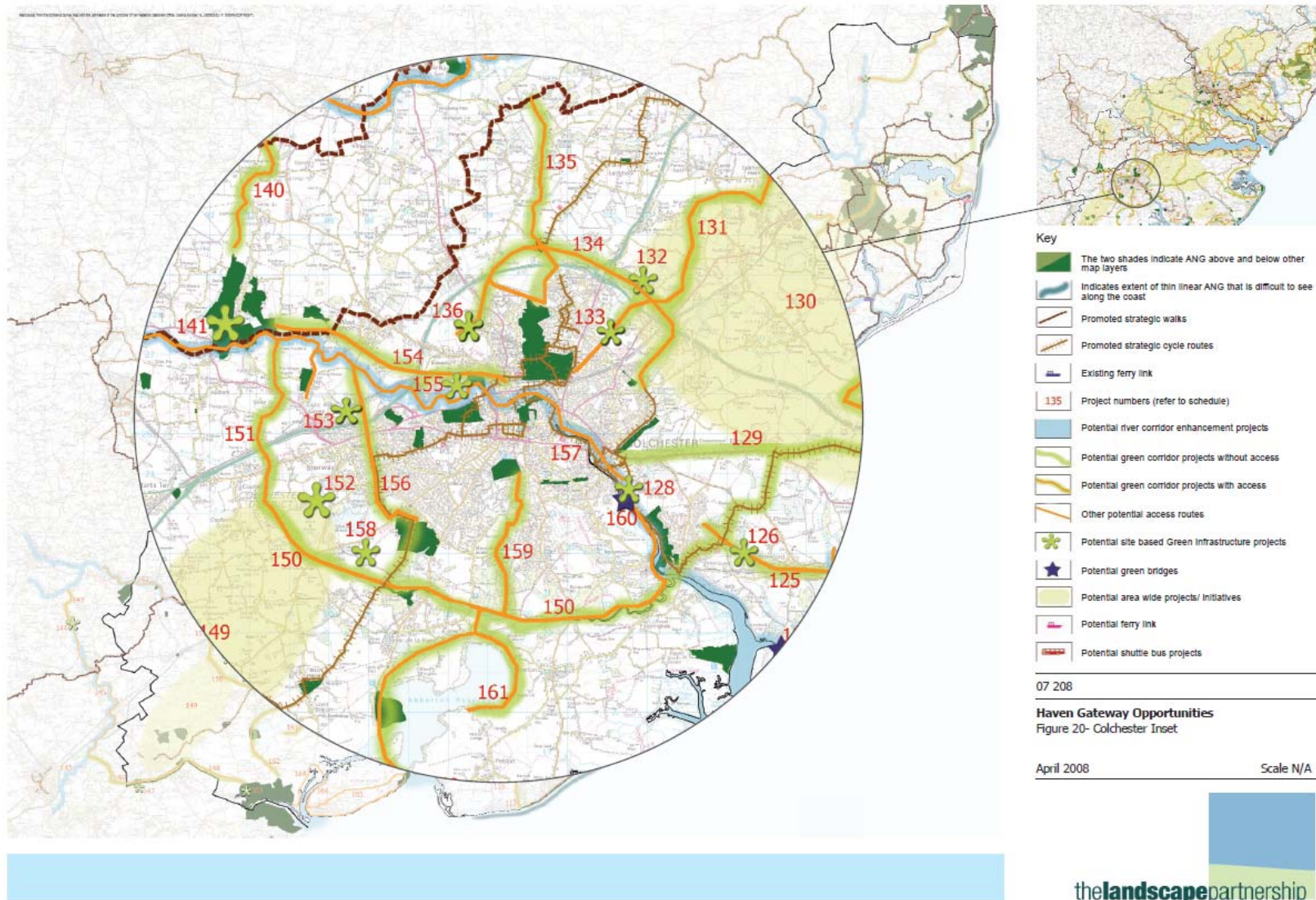
Maldon District Green Infrastructure Strategy

- 2.42 Maldon District lies to the south west of Colchester Borough. Maldon District Council Commissioned a GI strategy in Spring 2010. The final strategy is due to be published in early 2011.

Tendring, Braintree and Babergh Districts

- 2.43 Tendring and Babergh districts also border Colchester. These districts do not currently have district level green infrastructure strategies but are using the Haven Gateway Green Infrastructure Strategy to provide a strategic approach to the delivery of green infrastructure, along with various SPDs for the provision of open space, sport and recreation. The Colchester green infrastructure strategy needs to ensure that any proposals are in the context of and complement proposals in adjoining authorities to ensure the provision of a sustainable strategic green infrastructure network.
- 2.44 The HRA visitor monitoring work currently being undertaken by Colchester Borough Council on behalf of Braintree and Tendring Councils may result in the need to create new areas of Green Infrastructure to relieve pressure on sensitive sites.

Figure 2.1: Haven Gateway GI Strategy Colchester Inset Map



3 Characterisation

3.1 This section describes the baseline characteristics and the key green infrastructure issues. With reference to Natural England’s recent Green Infrastructure Guidance a set of 6 functions have been identified for green infrastructure in the Borough.

3.2 **Table 3.1** below gives a brief explanation of the functions. The data used to produce the characterisation is listed under each section. In addition to these 6 functions a brief description of the overarching socio- economic character of the Borough is also given in this section, with functional and provision and need analysed at **section 5**.

Table 3.1: Green infrastructure functions in Colchester Borough

GI Functions	Description
Habitat provision and access to nature	Conserving and enhancing areas of existing wildlife habitat, as well as providing new habitat, and opportunities for access for a range of social and age groups (outdoor classroom etc).
Landscape character, setting and context	To respond to landscape character and to provide enhanced landscape: townscape interface and setting. Conservation and enhancement of landscape assets and their settings. Provision of high quality environments in which to live and work.
Cultural heritage	Conservation and enhancement of cultural heritage assets and their settings. Provision of high quality environments in which to live and work.
Sustainable resource management & climate change adaptation	Consideration of sustainable management of water resources, opportunities for floodrisk adaptation, and for climate change adaptation through more flexible multi functional approaches to urban and landscape design and management. Note: The analysis in this section is confined to flood risk. Climate change adaptation does cover a much wider area of interest,

GI Functions	Description
	and this is picked up within other GI functional analysis and implemented within individual GI projects, e.g. urban shading and cooling, microclimate amelioration, local food production etc.
Locally Productive Landscapes	Opportunities for food production at the local level ('edible landscapes'), including allotments, community orchards, community gardens and urban farms. Also sustainable fuel production.
Access, recreation and movement	Provision of sustainable transport and access routes, and a variety of recreational opportunities for the widest range of social, interest and age groups.

SOCIAL AND ECONOMIC CHARACTER

Key sources of data
Colchester Borough Council Adopted Core Strategy (CBC, 2008)
Site Allocations SA Scoping Report (CBC, 2007)
Demographics/socio-economic indicator mapping (indices of multiple deprivation)
Employment Land Study (Atkins, 2007)

Characterisation

- 3.3 This section discusses the social and economic characteristics of the Borough that have relevance to green infrastructure.

Population

- 3.4 Two-thirds of the total population is concentrated within the built-up areas of Colchester Town and Stanway. Population density is greatest within Colchester Town, particularly to the east and south-west, as shown in **Figure 3.1**. The population is expected to grow by 13.3% (since mid-2004 population estimates) to 182,000 people in 2021. The largest growth will be

in the older age groups (60+), whilst growth levels are expected to decline in the younger ages groups (aged 19 or younger).

Economy and employment

- 3.5 Colchester Borough has experienced a healthy and vibrant economy largely as a result of its strategic geographic position. The economy is dominated largely by the service sector accounting for nearly 86% of jobs in 2008, and the Borough has continued to move away from manufacturing and agricultural sectors in recent years. Tourism also plays an important part in the local economy. In 2008 there were 4.4m visitor trips, nearly 93% of which were made by day-trippers.
- 3.6 Most future growth is expected to be in creative, environmental/alternative energy and tourism. The Employment Land Study has indicated that there is nearly 68ha of land which is suitable to come forward for employment development up to 2021, most of which is either within the 'urban edge' (48%) or 'within' an urban area (20%). Demand projections estimate that approximately 30ha of employment land is required in the Borough to support the projected growth in employment. However, the current economic climate and public sector cuts may have an adverse impact on the local economy and demand for employment space.

Deprivation

- 3.7 The Borough is relatively prosperous ranking 217 out of 354 districts on the Index of Multiple Deprivation (rank 1 being the most deprived). The most deprived wards (some of which are within the 20% most deprived wards in the country) are focused within and around Colchester Town as shown in **Figure 3.2**. Environmental deprivation is worse in the town centre e.g. as a result of poor air quality, whereas areas of poorer health are more fragmented and extend further south.

Regeneration

- 3.8 Colchester town's main employment area is the Garrison, which has close links with the town and there are sizeable educational facilities, including the University of Essex. Regeneration in the Borough has historically focused on four main areas: North Colchester Town, the Garrison, St. Botolph's and East Colchester Town. A fifth Regeneration Area at North Station has been allocated in the Core Strategy/Site Allocations Development Plan Documents. The redevelopments already have or will collectively provide new housing,

employment, a university research park, new army garrison, a visual arts facility and new community stadium. They have or should in the future also provide opportunities to create new Green Infrastructure. Plans for the Town Centre will promote walking routes through Colchester Town area to support the local economy. The availability of good walking environments in urban areas can help to deliver positive economic, social and environmental benefits.

Key Issues

- There is expected to be an increase in the older age group population and a decline in the younger age groups.
- Colchester Town is an important tourist destination largely as a result of its cultural heritage. The vast majority of tourists are day trippers.
- There is a potential excess of employment land and new employment land will be developed alongside residential and community uses, particularly within the Growth Areas.
- There is a need to regenerate and improve the quality of environment where deprivation is most significant, including Regeneration Areas.
- Dedham Vale AONB and Stour Valley Sustainable Development Fund aims to encourage individuals, community groups, schools, businesses and parish councils to develop projects that are of benefit to the environment, economy and society. Projects include 'Reskilling the Valley' which seeks to transfer past and modern day skills to the younger generation in response to changing lifestyles necessary to meet the challenges of climate change.

HABITAT PROVISION AND ACCESS TO NATURE

Key sources of data
National and International Nature Conservation Designations (dataset)
Natural England's 'Nature on the Map' (http://www.natureonthemap.org.uk)
Local Nature Reserves (dataset)
Local Wildlife Sites – Provided by CBC
The Living Landscapes Project (http://www.essexbiodiversity.org.uk/livinglandscapes.aspx)
Essex Biodiversity Action Plan (1999)
Colchester Borough Council <i>Local Wildlife Site Review</i> (December 2008)
UK BAP Priority Habitats (dataset)
Ancient Woodland Inventory (dataset)
Important Bird Areas (dataset)
Environmentally Sensitive Areas (dataset)

Characterisation

- 3.9 Colchester Town's location between two river valleys (Colne and Roman rivers), geology (sands and gravels), and a long history of army activity to the south of the town (preserving many large tracts of unimproved land) mean that there are many important sites and habitats within and around the urban area. The wider Borough provides a home for a number of protected species, with large areas of estuarine, coastal, and wetland habitats. Nature conservation designations (statutory and non-statutory) are shown in **Figure 3.3**.

Statutory nature conservation sites

- 3.10 Three large areas to the south and east of the Borough are afforded international (SPA, Ramsar and SAC) and national (SSSIs) nature conservation designations (Abberton Reservoir and the Colne and Blackwater Estuaries). These and other designated sites are summarised below.
- 3.11 **Abberton reservoir**, a large storage reservoir four miles south of

Colchester Town, is designated as a Ramsar site, a Special Protection Area (SPA) and a Site of Special Scientific Interest (SSSI), being one of the most important reservoir sites in Britain for wildfowl and an internationally important wetland. The **Colne Estuary**, which stretches from the coast towards the centre of Colchester Town, is designated as a SSSI, Ramsar, SPA, and contains areas of geological and geomorphological interest and the Colne Estuary National Nature Reserve. The Colne Estuary also includes part of the Essex Estuaries SAC. The **Blackwater Estuary**, part of which falls within the south of the Borough, is also a Ramsar and SPA, and contains the Blackwater Estuary National Nature Reserve. Both estuaries form part of the Essex Estuaries Special Area of Conservation (SAC), designated as an extensive area of contiguous estuarine habitat.

- 3.12 The **Stour and Orwell Estuaries** are also Ramsar and SSSI. Part of the estuaries lie to the north east of the Borough, with a small area also lying within the Borough boundary.
- 3.13 In addition to those named above, there are several other SSSI in the Borough. **Roman River SSSI**, lies to the south of Colchester Town, and is a complex mosaic of woodland, scrub, heath, grassland and fen. The **Upper Colne Marshes** lie along both sides of the River Colne and Roman River, south east of Colchester Town. To the west of the Borough, approximately 3km from Colchester Town, the **Marks Tey brick pit SSSI** is designated for its uniquely important Pleistocene sediments. **Tiptree Heath SSSI** lies between Colchester and Maldon on a ridge of glacial sand and gravel and is the largest surviving fragment of heathland in the County. **Bullock Wood SSSI** lies adjacent to housing on the edge of Colchester, to the north east of the town. It is ancient coppice-with-standards woodland with a wide range of tree species. Finally, the **Chalkney Wood SSSI** area of ancient woodland lies adjacent to the western Borough boundary in Braintree District, on a spur of land overlooking the Colne Valley.

Non-statutory nature conservation sites and initiatives

- 3.14 There are several **Local Nature Reserves** (LNRs) in the Borough. With the exception of Tiptree Parish Field to the west of the Borough, the LNRs are all clustered within or adjacent to the urban area of Colchester Town. The largest are Hilly Fields LNR (37.49ha) to the west of the town and the Colne LNR (34.66 ha) at Wivenhoe.
- 3.15 The Essex Wildlife Trust's **Local Wildlife Sites** (LoWS) website shows that

there are 169 LoWS in Colchester, spread throughout the Borough with a strong concentration of along the Colne, Roman and Stour River Valleys. Of these, 61 have approved 'Positive Conservation Management' (PCM) status, which means they have a management plan and have had active projects in the last 5 years. Another 3 have this status pending. The remaining 105 are listed as 'inactive'.

- 3.16 There are several areas of **ancient woodland** in the Borough, scattered broadly through the central and northern areas of the Borough. The largest of these include Pods Wood (46.89 ha), High Woods (44.78ha), Layer Woods (41.67 ha) and Donnyland Wood (25.41ha). The East of England Woodland Strategy (2003) states that Essex is noted for its ancient hunting forests of Epping, Hatfield and Hainault, as well as native black Poplar.
- 3.17 The Essex Wildlife Trusts are spearheading an initiative called 'Living Landscapes'. **Living Landscapes** are large landscape scale areas of the countryside which are ecologically stable and 'bursting with life'. Essex Wildlife Trust has produced a Living Landscapes Map of Essex⁸ with partners to identify 80 Living Landscape areas, based upon their existing ecological value and their potential to become even more vibrant. A key target is to have management plans in place for all of these areas. 12 of these Living Landscapes fall wholly or partially within the Borough of Colchester, and include wetland, coastal and estuarine, woodland and 'mosaic and grassland' areas, as well as 'corridors' between these. Several of these areas already have management plans⁹ or are beginning the process with a visioning document. In Colchester Borough these include the Roman River Complex, and Tiptree Heath and in Tendring District, Alresford Quarry. The plans include detailed targets and costed actions for the sites.

Biodiversity Action Plan Habitats and Species

- 3.18 There are a few UK Biodiversity Action Plan (BAP) habitats for which Colchester Borough has particular importance at the county level:
1. **Coastal grazing marshes and mudflats** – most is SSSI, but also some LoWS.
 2. **'Brownfield' Habitats** – Mineral extraction sites resulting from sand

⁸

See:

<http://www.essexbiodiversity.org.uk/Data/Sites/1/Living%20Landscapes%20map%201.0MB.pdf>

⁹ Available at: <http://www.essexpartnershipportal.org/live/partnership/65>

and gravel deposits support invertebrates and solitary bees and wasps.

3. **River floodplain grassland** – fragmented and reduced in extent, but there are three LoWS of this habitat (NT land on River Stour and around Denham, the Roman River Valley, and the urbanised River Colne in Colchester Town).
4. **Reedbed** – Colchester Borough has some very significant stands in the Reevshall Reedbed on Mersea Island and within the Colne Estuary SSSI at Lagenhoe.
5. Also **Saline Lagoon habitat**, though further surveys are needed to confirm the extent of this.

3.19 The distribution of these is illustrated in **Figure 3.4**, but includes several areas of coastal and floodplain grazing marsh along much of the River Colne, including to the east and west of the town centre. There are numerous areas of deciduous woodland running broadly along the line of the Roman River valley and to the north and west of Colchester Town, as well as a patch at the very north of the Borough. Mudflats and reed beds are present across the coastal and estuarine areas, with Abberton reservoir also identified as reedbed. Large patches of grassland lie to the west of Rowhedge and east of Friday Wood.

Shoreline Management Plan

3.20 The final Essex and South Suffolk Shoreline Management Plan (2010) includes preferred policies for coastal realignment in four areas within Colchester Borough, including a site just south of Wivenhoe, land in the vicinity of Ballast Quay on the Colne Estuary, and to the south and west of Mersea Island. These schemes if implemented could result in the loss of freshwater habitat in some places (some parts of which are designated), but they also have the potential to create new intertidal habitats in these places. At this stage the sites have only been identified as potential managed realignment sites which can only proceed with full landowner consent.

Key Issues

- Many BAP habitats in Colchester Borough such as heathland and deciduous woodland which used to be widespread, are now fragmented and isolated. This has significant consequences for the long term protection and adaptability of biodiversity and the ability of wildlife and habitats to adapt to climate change.

- Colchester Borough includes a range of designated habitats which are under threat from natural processes (such as coastal squeeze) and in some areas from built development.
- In several areas, parts of designated sites are already identified as being in a less than favourable condition.
- There are sites in the Borough which are important for wildlife and biodiversity even though they are not designated and may therefore be afforded lower protection.
- Colchester Town includes a number of protected sites for wildlife and biodiversity and a balance needs to be struck between protecting these areas for nature conservation whilst allowing access for education and recreation.
- Managed realignment, as proposed in the draft Essex and South Suffolk Shoreline Management plan (2010) would result in the loss of some protected habitats, but also the provision of new areas of intertidal habitat.
- Although there are numerous LoWS (such as The Moors, Ref Co125), in the Borough, not all of these are currently 'actively managed'.

LANDSCAPE CHARACTER, SETTING AND CONTEXT

Key sources of information
National Character Areas and Countryside Quality Counts (Natural England, Defra and English Heritage)
Essex Landscape Character Assessment (ECC, 2002)
Colchester Borough Landscape Character Assessment (CBA, 2005)
Landscape Capacity of Settlement Fringes in Colchester Borough (CBA, 2005)
Townscape Character Assessments Colchester, Tiptree, West Mersea and Wivenhoe (CBA, 2006)

Characterisation

- 3.21 Colchester Borough is extensively rural, but the majority of the population live in towns and villages. Colchester Town is by far the largest urban area within the Borough is also characterised by a series of historic smaller settlements including Tiptree, West Mersea, Wivenhoe, Dedham and Rowhedge. The A12 and railway line provide a dominant transport corridor crossing the Borough from east to west. The rural landscape of Colchester Borough is predominately used for arable or improved pasture. However there are also significant areas of remaining semi-natural habitat, including woodland, grassland, heath, estuary, saltmarsh and mudflat and freshwater and open water habitats.

Landscape character

- 3.22 Colchester Borough is generally low-lying and comprises a gently undulating broad plateau, intersected by a pattern of small intricate creeks and valleys that break up the plateau edges where the land falls gently towards the coast. These creeks and valleys extend the coastal influence far inland. The river valleys range from narrow steep sided valleys to more gentle valleys with wider floodplains. The highest areas of land are found in the north, west and south west of the Borough.
- 3.23 There are small patches of woodland scattered throughout the Borough. To the south of Colchester Town, blocks of woodland are found along the course of the Roman River and other areas of scrub woodland lie on the lower slopes of larger streams and in narrow tributary valleys. There are also

several orchards situated to the north of Colchester Town around West Bergholt, Great Horkesley and Langham.

- 3.24 Within Colchester Borough there are several examples of acidic grassland associated with heathland. Areas of drained grassland are found within the marshes situated within internationally and nationally designated Blackwater Estuary and Colne Estuary. Along the coast there is a mixture of saltings, mudflats, sand and shingle beaches that extend beyond the sea walls providing an important habitat for a range of wildfowl.
- 3.25 Abberton Reservoir SSSI, SPA is the largest freshwater body in Essex with a water area of about 500ha. It lies approximately four miles south of Colchester and is of national significance as one of the most important reservoirs in Britain for wildfowl and one of Europe's most renowned wetland sites. Rivers form the other main freshwater habitat within Colchester Borough.
- 3.26 Straddling the Borough boundary to the north is Dedham Vale Area of Outstanding Natural Beauty, providing a well known and much loved lowland English landscape.
- 3.27 Colchester Borough is covered by three National Character Areas:
- South Suffolk and North Essex Claylands;
 - Northern Thames Basin;
 - Greater Thames Estuary.
- 3.28 The majority of the Borough is within the Northern Thames Basin Character Area. In addition, a series of regional landscape types cover the Borough and these can be seen in **Figure 3.5**. The Countryside Quality Counts assessment concludes that the character of the landscape is diverging – changing in a way that is inconsistent with the vision for this character area. It states that the continued erosion of the character of the farmed landscape, together with the pressures from development, suggests that overall the character of the area continues to transform. Woodland has however, been maintained or strengthened locally.
- 3.29 The County-wide landscape character assessment divides the Borough into 12 Landscape Character Areas. The Borough-wide assessment has drawn these together with the three National Character Areas to develop seven definitive character types that reoccur throughout the Borough. These are shown in **Figure 3.6**.

Designated landscapes

- 3.30 There are two designated landscapes in the Borough – the nationally significant landscape of Dedham Vale Area of Outstanding Natural Beauty (AONB) and the locally designated West Mersea Waterside Area of Special Character.
- 3.31 The AONB straddles the Borough’s northern boundary, following the route of the Stour Valley. The high quality lowland landscape is further enhanced through its close association with the works of artist John Constable.
- 3.32 The AONB status recognises the special landscape character and qualities of the area. Local planning policies state that development proposals will only be supported where they make a positive contribution to the special landscape character and qualities of the AONB. Management of the AONB is guided by the Dedham Vale AONB & Stour Valley Management Project, one of theme of which is Landscape, Biodiversity and Farming.
- 3.33 West Mersea Waterside Area of Special Character is a local designation, recognising the unique character of this part of Mersea which has been strongly influenced by maritime, fishing and boating uses. Development proposals are expected to enhance the existing traditional maritime character of the West Mersea Waterside Area of Special Character, and its role as a major yachting, fishing and boating centre. The open countryside surrounding West Mersea forms part of the Coastal Protection Belt.

Townscape character

- 3.34 The Borough has been divided into 10 Townscape Character Types, each of which contain a number of Townscape Character Areas. They include a number of urban green spaces within Colchester which may offer opportunities for green infrastructure improvements.

Key Issues

- 3.35 The Landscape Character Assessment has identified a number of key planning and land management issues. Recurring issues that are most relevant to the Green Infrastructure Strategy are:
- Effect of expansion of urban areas on adjacent landscape character.
 - Expansion of Abberton Reservoir could potentially affect landscape character and visual amenity.
 - Decrease in hedgerow and tree cover due to pressure from adjacent

agricultural land use.

- Loss of species rich riverside grassland and marshland due to intensive grazing management.
- Visual intrusion of traffic in the undeveloped floodplain, particularly where main railway line and A12 cross the area.
- Potential impact on water quality, flooding and water availability for wetland habitats and creation schemes from the Ely Ouse Transfer Scheme.
- Potential creation of new woodland in Woodland Trust land to the west of Fordham.
- World War Two airfield to south of Easthorpe is an important historical and cultural resource.
- Pressure on the landscape from urban-fringe related activities e.g. sand and gravel extraction, horse paddocks, recreation.
- Pressure on areas of woodland and saltmarsh from military activities.
- Pressure on minor roads and rural lanes.
- Sea-level rise and erosion could lead to the loss of existing saltmarsh within the Colne and Blackwater Estuaries.
- Visually intrusive caravan parks on the coast.
- Acceleration of loss of Victorian tree stock due to it being over mature and not being replaced with large tree species but rather small non-native ornamentals. TPOs could be used to preserve areas and individuals of importance.

3.36 Key issues related to Dedham Vale AONB and the Stour Valley include:

- Changes to landscape character e.g. unsuitable planting schemes and poorly sited and designed new buildings;
- Loss of traditional agricultural areas to new development and inappropriate change of use, e.g. poorly designed horse paddocks;
- Changes to the village environment, e.g. suburbanisation and a tidying-up culture.

- Loss of tranquillity
- Maintaining key landscape features such as water meadows, hedges, built heritage and archaeological features

3.37 'Managing a Masterpiece' is a three year programme to understand, conserve and celebrate the landscape of the Stour Valley, supported by the Heritage Lottery Fund. It will help deliver aspects of the AONB Management Plan and consists of 14 projects relating to understanding, conserving and celebrating the Stour Valley landscape, focused on clusters of heritage hotspots based around Clare, Sudbury, Bures, Stoke by Nayland and Dedham.

CULTURAL HERITAGE

Key sources of information
Historic Environment Characterisation Project (Essex County Council, 2009)
Landscape Capacity of Settlement Fringes in Colchester Borough (CBA, 2005)
Townscape Character Assessments Colchester, Tiptree, West Mersey and Wivenhoe (CBA, 2006)
Essex Historic Environment Record
Colchester Urban Archaeological Database.

Overview

- 3.38 Colchester, famously known as ‘Britain’s oldest recorded town’, has a rich and diverse historic environment. It was the location of a major Iron Age settlement, the Roman capital of Britain, an important wool and cloth centre in medieval and Tudor times, and focus as a hub for Victorian and 20th century industry; all reflected in the borough’s present character. The main aspects of historic character in Colchester Borough are shown on the map at **Figure 3.7**, and summarised below.

Historic Environment Character

- 3.39 The Borough has been divided into 15 Historic Environment Character Areas (HECAs), further sub-divided into 81 Historic Environment Character Zones (HECZs), based on historic landscape character, archaeological character and historic built environment character¹⁰. These provide an integrated spatial framework for understanding and managing the Borough's historic environment assets. The HECAs and HECZs are listed in the table overleaf (with a summary of characteristics relevant to GI) and shown in **Figure 3.8**. This figure also shows the scoring for survival (state of completeness of historic environmental character assets) and sensitivity to change (medium-large scale residential development) of the HECZs as identified by the Historic Environment Characterisation project¹¹, where 1= least sensitive/least intact in terms of survival and 3= most sensitive/most intact in

¹⁰ Essex County Council/Colchester Borough Council, 2009 **Historic Environment Characterisation Project**

¹¹ Ibid

terms of survival (a full explanation is given in the report for the Historic Environment Characterisation Project). Taken together, these all indicate important aspects of the historic legacy to conserve, enhance and interpret as part of the green infrastructure network. Each of the HECZ identified within the Historic Environment Characterisation project is also scored on its amenity value, which relates to the actual or potential amenity value of the historic environment within any particular zone in relation to its contribution to local sense of place and promotional value for the benefit of local people or visitors.

HECA (and component HECZs)	Summary characteristics relevant to GI
<p>1. River Stour Valley</p> <p><i>1.1: Valley of the Stour</i></p> <p><i>1.2: Wormingford and Little Horkesley</i></p> <p><i>1.3: Stour Valley around Langham</i></p> <p><i>1.4: Langham</i></p> <p><i>1.5: Dedham</i></p> <p><i>1.6: East of Dedham</i></p>	<p>Flat valley floor, floodplain and valley slopes, with the river punctuated by pollard willows and crossed by a number of historic routeways. Historic valley settlements including Dedham and villages such as Langham, Wormingford and Boxted. Medieval features include moated sites and post medieval structures such as mills are a feature of the valley landscape as at Dedham. Also ancient woodlands e.g. Boxted Great Wood.</p>
<p>2. Bures and Fordham</p> <p><i>2.1: Wakes Colne Green</i></p> <p><i>2.2: Mount Bures & Sudbury Branch Line</i></p> <p><i>2.3: Wormingford Airfield area</i></p> <p><i>2.4: Fordham and rural land to the west</i></p>	<p>Occupying the ridge between the Colne and Stour Valleys and formerly characterised by heathlands and by a dispersed historic settlement. Much of the landscape is now under cultivation, with extensive boundary loss and areas of woodland, mostly plantations from the 18th century and later. Archaeological aspects include a Motte and Bailey castle at Bures, the industrial heritage of the railway from Marks Tey to Sudbury and the World War II airfield at Bures.</p>

HECA (and component HECZs)	Summary characteristics relevant to GI
<p>3. Great Horkesley and West Bergholt</p> <p><i>3.1: The Horkesleys</i></p> <p><i>3.2: West Bergholt</i></p> <p><i>3.3: Boxted</i></p> <p><i>3.4: Boxted Airfield Area</i></p>	<p>Also occupying the elevated ridge between the Colne and the Stour, and formerly characterised by heathlands, with a dispersed historic settlement pattern. Fieldscapes are characterised by irregular field patterns, possibly of medieval origin, and areas of heathland. Crop marks relate to pre historic and Roman activity and also to medieval settlement, with a hill fort at Pitchbury Ramparts. Plantation woodlands (18th century and later) are characteristic. Orchards were formerly a feature of the historic landscape, although many of these have now been lost.</p>
<p>4. Colne Valley</p> <p><i>4.1: Land to the west of Wakes Colne</i></p> <p><i>4.2: Wakes Colne and Chappell</i></p> <p><i>4.3: Ford Street and River Colne Valley</i></p> <p><i>4.4: River Colne Valley</i></p>	<p>Comprising the lower reaches of the Colne between Wakes Colne and Colchester. There is an extensive distribution of pre 18th century field patterns, some of which may include medieval and post medieval enclosure. Historic heathland has mostly been lost to later settlement expansion e.g. at West Bergholt. A dispersed historic settlement pattern, with halls, moated sites and farms often apparent. The Second World War Eastern Command line of defence was located in the Colne Valley and there are numerous relics which relate to this.</p>
<p>5. Modern Colchester</p> <p><i>5.1: Severall's Hospital</i></p> <p><i>5.2: Highwoods Country Park</i></p> <p><i>5.3: Mile End</i></p>	<p>Comprising the Roman and medieval suburbs of the walled town (e.g. Roman remains at Middleborough), the site of the fortified Iron Age settlement of Camulodunum, the historic port at the</p>

HECA (and component HECZs)	Summary characteristics relevant to GI
<p>5.4: North East Colchester</p> <p>5.5: Riverside Walk</p> <p>5.6: Guilford Road Estate</p> <p>5.7: Middleborough and Colchester Institute</p> <p>5.8: Sheepen</p> <p>5.9: Lexden</p> <p>5.10: Colchester Garrison</p> <p>5.11: Colchester Cemetery</p> <p>5.12: Monkwick and Old Heath</p> <p>5.13: The modern Hythe</p> <p>5.14: New Town</p> <p>5.15: Bourne Valley</p> <p>5.16: Stanway</p> <p>5.17: East Hill</p> <p>5.18: The Hythe</p> <p>5.19: South of the walled town</p> <p>5.20: Land to the south of Shrub End Road</p>	<p>Hythe, 19th century Garrison, Second World War defences and 20th century suburbs. St John's Green, in the south of the town, is focussed around the site of the 11th century Benedictine Abbey of St John. Severall's Hospital and parkland grounds and Highwoods Country Park (whose woodlands are a relic of the great historic Forest of Essex), form key historic GI asset in the north of the area. Many areas are foci for urban regeneration e.g. Severalls (part of North Colchester Growth Area) and the Garrison. Historic sites and features are a critical element of Colchester's GI and also include St. Botolph's Priory, Colchester Cemetery, the watermills and mill ponds of the Bourne Valley, plus the Iron Age and Roman dykes at Lexden and Stanway, and settlement at Sheepen/Hilly Fields.</p>
<p>6. Colchester Historic Core</p> <p>6.1: Colchester High Street</p> <p>6.2: St Mary's Precinct</p> <p>6.3: North Hill</p> <p>6.4: Dutch Quarter</p> <p>6.5: Castle Park</p> <p>6.6: Bury Fields</p> <p>6.7: South of High Street</p> <p>6.8: Greyfriars</p>	<p>Comprising the extent of the Roman and medieval walled town and the predominantly Roman town walls, with a number of distinctive, landmark structures including the Roman Balkerne Gate and the Castle (within a Victorian landscaped park). Other distinctive aspects include the wide High Street which contained the former medieval Market Place, and the Flemish houses in the Dutch Quarter. The historic town centre's parish churchyards such as at</p>

HECA (and component HECZs)	Summary characteristics relevant to GI
	the redundant St. Martin's church are also important and distinctive elements of the town's urban GI.
<p>7. Wivenhoe Area</p> <p><i>7.1: Wivenhoe Hinterland</i></p> <p><i>7.2: Wivenhoe Park</i></p> <p><i>7.3: East of Colchester</i></p>	A narrow area of land bounded by the outskirts of Colchester town and the eastern slopes overlooking the River Colne. Distinctive aspects are the former parklands of Wivenhoe Hall (now within the University of Essex), former heathlands (enclosed early in the 19th century) and a dispersed settlement pattern. Ancient woodlands are locally distinctive, whilst orchards were formerly widespread.
<p>8. Wivenhoe Town</p> <p><i>8.1: Historic centre of Wivenhoe</i></p> <p><i>8.2: Post medieval Wivenhoe</i></p> <p><i>8.3: Modern Wivenhoe</i></p>	Comprising the urban area of the small port town of Wivenhoe, located on the western bank of the Colne. Wivenhoe grew around maritime industries such as boat building (and associated industries such as coopering and rope making) and oyster fishing. Wivenhoe Hall (now demolished) formed a feature of the north western side of the town.
<p>9. Great Tey Area</p> <p><i>9.1: Great Tey area</i></p> <p><i>9.2: Aldham, Eight Ash Green and Fordham Heath</i></p>	Formed by the Roman River Valley and the area surrounding Great Tey. Distinctive aspects of historic character area the Roman roads at Stane Street and the old A12, historic heathland at Fordham, pasture of probable medieval origin in the Roman River valley floor and areas of pre 18th century irregular and co axial fields. Also a dispersed settlement pattern of isolated manors, moated sites, church/hall complexes and

HECA (and component HECZs)	Summary characteristics relevant to GI
	hamlets.
<p>10. Messing and Marks Tey Area</p> <p><i>10.1: Marks Tey, Easthorpe and Copford Green</i></p> <p><i>10.2: Inworth area</i></p> <p><i>10.3: Tiptree Heath area</i></p> <p><i>10.4: Messing area</i></p>	<p>A low ridge formerly extensively given over to heathland, although much of this was enclosed in the 19th century. Whilst most of the landscape is now under arable cultivation, parts of Tiptree Heath survive. Large areas of ancient woodland are distinctive, such as at Pods Wood and Layer Wood, and a large park at Messing Park. Horticulture, linked to the Tiptree Jam Factory, has been a key influence in shaping historic landscape character in the 20th century.</p>
<p>11. Town of Tiptree</p> <p><i>11.1: Tiptree</i></p> <p><i>11.2: Tiptree Jam Factory</i></p>	<p>Formerly a small nucleated town in the medieval period, Tiptree grew much more extensively in the 20th century, associated with the Wilkins Jam Factory.</p>
<p>12. Roman River Valley</p> <p><i>12.1: Copford</i></p> <p><i>12.2: Stanway Quarries</i></p> <p><i>12.3: Fiveways Fruit Farms</i></p> <p><i>12.4; Gosbecks</i></p> <p><i>12.5: Roman River Valley</i></p> <p><i>12.6: Middle Wick Ranges</i></p> <p><i>12.7: Rowhedge</i></p>	<p>Comprising the Roman River Valley between Copford and Rowhedge. Historic valley settlements include Rowhedge and Layer de la Haye and Heckfordbridge, as well as numerous individual halls and farms. Other important aspects include the Iron Age earthworks associated with the fortified settlement of Camulodunum and associated Iron Age and Roman activity at and around Gosbecks. Ancient fieldscapes are also characteristic. Further distinctive elements of GI value include the military firing ranges at Middlewick and ruined medieval churches at Stanway and Birch.</p>
<p>13. Abberton Area</p>	<p>A gently undulating, open landscape</p>

HECA (and component HECZs)	Summary characteristics relevant to GI
<p><i>13.1: Birch and the Layers</i></p> <p><i>13.2: Abberton Reservoir</i></p> <p><i>13.3: The Wigboroughs</i></p> <p><i>13.4: Abberton and Langenhoe</i></p> <p><i>13.5: Fingringhoe</i></p>	<p>south of Colchester, bounded to the south by coastal marshes and to the north by the Roman River Valley. Abberton Reservoir, constructed in the 1930s, dominates the area, with extensive quarrying of sand and gravel deposits around Fingringhoe. Settlement pattern is dispersed and field pattern is highly varied across the area, e.g. probable medieval or even earlier irregular fields in the north west and co axial, rectilinear systems (also probably medieval) in the remainder of the area with dispersed areas of later enclosure.</p>
<p>14. Colne Estuary</p> <p><i>14.1: Mersea Flats</i></p> <p><i>14.2: Salcott, Abbots Hall, Copt Hall and Feldy Marshes</i></p> <p><i>14.3: Langenhoe Marshes, Wick Marsh, Fingringhoe Marshes and Geedon Saltings</i></p> <p><i>14.4: River Colne Marshes</i></p> <p><i>14.5: Colne Estuary inter-tidal zone</i></p> <p><i>14.6: Mersea Island Marshes</i></p>	<p>Comprising historic reclaimed coastal grazing marsh as well as un reclaimed salt marsh. Also the intertidal zone along the south shore of the Colne Estuary, around Mersea Island and the Salcott Channel to the mouth of the Blackwater Estuary. Key archaeological characteristics of the area are Late Iron Age or Roman red hills, medieval and post medieval structures relating to marshland reclamation, as well as post medieval and World War II defences.</p>
<p>15. Mersea Island</p> <p><i>15.1: Historic core of West Mersea</i></p> <p><i>15.2: Post Medieval and Modern West Mersea</i></p> <p><i>15.3: Mersea Island</i></p>	<p>Comprising the dry land area of Mersea Island. Distinctive and unusual features include numerous fresh water springs. Aspects of the historic environmental character include a mix of ancient field patterns, interspersed with later and modern elements, such as the urban area of West Mersea and several caravan parks. A considerable sense of time</p>

HECA (and component HECZs)	Summary characteristics relevant to GI
	depth is evident, with pre historic settlement and a Roman villa complex both recorded. Also Second World War Coastal defences.

Table 3.1: Summary of historic environmental character

- 3.40 The Historic Environment Characterisation Project provides a wealth of information and a useful reference point when considering how to safeguard and enhance the historic environment as an integrated part of development within the Borough.

Cultural Heritage Features

- 3.41 The Borough has a rich historic environment, including designated heritage assets: 1,550 listed buildings, 22 Conservation Areas and 45 Scheduled Monuments on the Essex Historic Environment Record (HER), which represent a significant concentration of the total Scheduled Monuments in the whole of Essex, plus many more undesignated features that are of national, regional or local significance. Colchester’s historic environment lends character to the Borough and local distinctiveness, and can provide a positive template for new development, including the provision of green infrastructure. It can play a key role in creating a ‘sense of place’ and identities as new communities are created and existing ones enhanced. Key heritage assets that contribute to Colchester’s unique character and which represent important elements of green infrastructure include:

- The Norman Castle and Victorian Castle Park in the heart of the town centre, which protects nationally important archaeological remains whilst providing an area for wildlife and recreation
- The Town Wall encircling the Colchester’s historic urban core, which supports important wildlife
- The Victorian designed landscape of Colchester Cemetery, which is an important place for reflection and relaxation
- The Iron Age and Roman dykes such as Gryme’s Dyke and Lexden Dyke, which act as important wildlife corridors and provide recreational links between the town and countryside

- Gosbecks Archaeological Park, which protects archaeological remains of European importance whilst providing an significant open space on the urban fringe of south Colchester
- 3.42 The surrounding villages and towns also have a rich historical heritage, including the seafaring communities of Mersea and Wivenhoe, the former wool town of Dedham and the jam-making centre of Tiptree (Colchester Core Strategy, 2008).
- 3.43 The numerous archaeological sites, historic buildings, and Conservation Areas in the Borough are a focus for preservation and enhancement. A significant number of the open spaces in the Borough are characterised by, or contain cultural heritage features, including buried archaeological remains. In some cases, such as at Castle Park and Gosbecks Archaeological Park, these features are already well integrated with the green infrastructure network, and attract a range of visitors. In addition, historic landscape features such as greens ancient woodlands and coastal grazing marsh represent fundamental elements of the Borough's green infrastructure, and historic buildings and structures associated with open spaces serve to enhance the experience of visitors and local users.
- 3.44 There is a wealth of cultural heritage features in the Borough, and particularly around the town of Colchester. Therefore, utilising these features more to promote and encourage the use of green infrastructure in the Borough is a key opportunity. This applies equally to all forms of cultural heritage from prehistoric earthworks such as the Iron Age Hillfort of Pitchbury Ramparts, to the buildings and open spaces of Colchester Garrison. A good example of this is the promotion of the Colchester Roman Circus, in the Garrison Regeneration Area, for which proposals include the provision of a new open space, which will protect the below ground archaeological remains, as well as the restoration of barracks buildings. The scheme would also see interpretation of the Circus, including a reconstruction of the chariot starting gates, and improvements to the setting of the renovated barracks buildings.

Key Issues

- The Borough contains a wealth of cultural heritage that should be celebrated.
- The Borough's historical assets would benefit from better promotion, interpretation and information to improve opportunities for education and recreation and to strengthen people's understanding of sense of

place.

- There is a need to balance the conservation and promotion of heritage assets and their use for suitable recreational purposes.
- As there are historical assets throughout the Borough and Colchester Town, it will be necessary to ensure the layout of new development in Growth Areas protects these features and allows for the most suitable promotion and interpretation of these.
- It is important to maintain the integrated management of historic and natural environment features including hedgerows and historic field boundary systems, woodlands and grazing marshes, which are significant for nature conservation and as cultural heritage features.
- Opportunities should be sought for the conservation of below ground archaeological remains through their incorporation into new green infrastructure.
- Where appropriate, the form and character of new green infrastructure should be informed by an understanding of the historic environment of a particular locality.
- There needs to be recognition of the contribution of the historic environment to local character and sense of place and opportunities to enhance this need to be sought.
- Opportunities need to be sought to enhance the setting of key heritage assets through the provision of new green infrastructure and improvements to existing GI.

SUSTAINABLE RESOURCE MANAGEMENT & CLIMATE CHANGE ADAPTATION

Key sources of information
Mid Essex Strategic Flood Risk Assessment, (October 2007)
Colchester Borough Council Strategic Flood Risk Assessment (2008) - Appendix C to the Mid Essex Strategic Flood Risk Assessment, (October 2007)
Sustainability Appraisal of the Colchester Site Allocations DPD (Colchester Borough Council, September 2009)
The Colne and Blackwater Flood Management Strategy

Characterisation

Overview

- 3.45 It is recognised that climate change adaptation covers many themes other than flood risk management. In view of available data, overlap with other functional analysis and the need for a focussed analysis, we have concentrated on flood risk management in this section. Other themes related to climate change adaptation, such as enhancing habitat connectivity and providing shading and cooling through climate change, and also local food production, are addressed in other functional analyses in this section and in the proposed GI network and projects at **section 6**.
- 3.46 While the dominant fluvial system in the Borough is the river Colne, several river systems characterise the Borough's boundaries. The southern boundary follows the northern bank of the Blackwater/Colne Estuary, the eastern boundary is characterised by the River Colne (until the river reaches Wivenhoe). The Stour forms the northern border of the Borough with the western boundary being located inland, running south, across the Colne Valley, until it reaches Tiptree in the south.
- 3.47 Apart from the estuarine systems of the Rivers Colne and Blackwater, landscape features of this area include Mersea Island and various creeks and channels, including Pyefleet Channel, Strood Channel, Geedon Marshes and Creek and Fingringhoe Creek. Settlements situated along the watercourses within the Borough include West Bergholt, Colchester, Rowhedge, Wivenhoe and West Mersea. Hydrological systems in the Borough provide and support a number of protected species and habitats.

Flood Risk

- 3.48 The risk of flooding posed to properties within the Borough arises from a number of different sources including river flooding, tidal flooding and surface water flooding. Flood Risk Zones within the Borough are shown in **Figure 3.9**.
- 3.49 In 2008 Colchester Borough Council undertook flood hazard mapping and breach analyses to provide information and guidance on flood risk issues within the district to enable the application of the Sequential Test to steer potential development to areas of lowest flood risk. This formed an appendix to the Mid Essex Strategic Flood Risk Assessment (2007). The information in this chapter is taken predominantly from this document.
- 3.50 The tidal flood risk is concentrated along the coastal areas and adjacent to Mersea Island, where land adjacent to the sea is low lying. There are multiple defence structures present on the River Colne, built to protect settlements along the river from flooding. Defence and flow structures are found at East Mills and at Middle Mill and the Colne Barrier.
- 3.51 In response to the passage of the Flood and Water Act 2010, Essex County Council are preparing a Preliminary Flood Risk Assessment to assess the risk from surface water flooding. Flood Hazard maps also have to be prepared to highlight those areas most at risk and this will identify where Sustainable Drainage Systems need to be provided to alleviate/ manage surface water flooding.

Allocated Development Sites

- 3.52 The main settlement of Colchester has grown up around the River Colne and so much of the urban area is close to the river and its tributaries, and within its floodplain. There are some parts of Colchester Town which are situated within Flood Zones 2 and 3 of the River Colne, and therefore some of the broad areas identified for development are in areas at risk of flooding.
- 3.53 However, the Sustainability Appraisal (SA) of the Colchester Site Allocations DPD (2009) concluded that only a few sites within areas of flood risk are allocated in the DPD and these sites have been subject to a flood risk Sequential Test and parts (a) and (b) of the exception test. Both DCLG and the Environment Agency have endorsed the approach taken by Colchester Borough Council to growth in the Borough including those areas in higher flood zones.

East Colchester Growth Area

- 3.54 A large proportion of the East Colchester Growth Area is located within the floodplain, including residential development in Flood Zone 2 & 3, and is therefore at risk from fluvial flooding. The SA states that the Sequential Test has been applied within the regeneration area for each site and has demonstrated that there are no reasonably available alternative sites in areas of lower flood risk. The Sustainability Appraisal and the Colchester SFRA recommend that full Flood Risk Assessment should be undertaken and submitted with all planning applications within the Masterplan/Growth Area, focused upon the assessment of flooding from local watercourses, tidal flooding, overland flow and the arterial drainage network. It should also contain an investigation of the proposed drainage strategy. This site-based flood risk assessment will indicate which sites are most at risk of flooding and how, which in turn will help to identify how the green infrastructure network can assist with attenuation and/or mitigation.

Town Centre

- 3.55 Some of the sites in the town centre were also identified in the SA report as being at risk of flooding, although they have passed the Sequential Test.

Stanway and North Colchester Growth Areas

- 3.56 Several sites within the Stanway Growth Area and Colchester North Growth Area are identified in the SA report as being at risk of flooding, but passed the Sequential Test due to a lack of alternative sites. For some of the sites, the risk of flooding is due to pressure on the sewerage system rather than coastal or fluvial flooding so the flood alleviation benefits of the green infrastructure network may be less prominent in these areas.

Employment Sites

- 3.57 Some of the Rural Employment Sites and others in the 'Borough wide' category are identified in the SA as being at risk of flooding through development but have passed the Sequential Test. For some sites, the risk of flooding is a result of increased pressure on the sewerage system rather than coastal or fluvial flooding so again, the flood alleviation benefits of the green infrastructure network may be less prominent at these sites.

Key Issues

- 3.58 Development has been deemed necessary in several areas which are at risk of

fluvial and/or coastal flooding as set out in the Site Allocations DPD. The green infrastructure strategy can play an important role in alleviating some of the pressure of flood water, and mitigating some of the impacts of flood risk planning (such as loss of habitats or rights of way).

- 3.59 Flood management strategies (e.g. proposed 'managed realignment' in the draft shoreline management plan for Essex and South Suffolk 2 (2010)) will involve both the loss of some existing habitats and the creation of new ones (as detailed above in the 'Wildlife and Biodiversity' characterisation section).
- 3.60 The Colchester SFRA already includes several mitigation recommendations which could form part of the Borough's green infrastructure network, including:
- an 8 metres set back distance along fluvial watercourses to ensure maintenance access for flood defences, which should be kept from of all permanent development and where possible should encourage leisure and public access routes;
 - that catchment strategies should include where possible the de-culverting of rivers and river channel restoration, to restore the natural systems and restore floodplain to reduce the impact of flooding downstream; and
 - the use of Sustainable Drainage Systems (SuDS), recommending a number of different types depending on the geology of each area.
- 3.61 The Sustainability Appraisal recommends the use of SuDs in all development, and specifically in the Stanway Growth Area to protect groundwater quality and levels, and reduce the risk of flooding (p.17), and in Tiptree to reduce flood risk, replenish groundwater levels and reduce the likelihood and amount of pollutants entering the groundwater system (p.18).

LOCALLY PRODUCTIVE LANDSCAPES

Key sources of information
Natural England Orchards dataset
Soilscapes: http://www.landis.org.uk/soilscapes/
The National Inventory of Trees and Woodlands
Agricultural Land Classification data – Best and Most Versatile Agricultural Land
East of England Apples & Orchards Project
Essex Biodiversity Action Plan
Colchester Borough Council Website

Characterisation

Overview

- 3.62 Colchester’s climate and fertile soils are suitable for a range of agricultural practices and food and fuel production, from traditional orchards to modern vineyards. Urbanisation and changing agricultural practices have led to the loss of many traditional forms of production such as coppicing and orchards. At the community level, there are an increasing number of food growing initiatives, which combined with the long waiting lists for allotments indicate enthusiasm for locally produced food in the Borough.

Food Production

Orchards

- 3.63 Essex was once a major contributor to orchard produce in England. The East of England Apples and Orchards project indicates that along the A12 corridor, which provided Colchester and Chelmsford with good access to London markets, there were thousands of acres of apple, plum and pear orchards. However, most of these have been lost in the last 30 years due to urbanisation, industrialisation, or replacement by more profitable arable crops. Natural England orchard data indicates that there are 94 traditional orchards in the Colchester Borough, with some of the largest to the west of Boxted in the north, south of Aldham in the west, and Abberton to the south

of Colchester Town. At Tiptree there are several orchards, some associated with the Wilkin & Sons jam-making factory, also at Tiptree. The larger orchards are listed as being 'actively managed'.

- 3.64 Old orchards are identified as a priority habitat in the Essex Biodiversity Action Plan. As well as providing habitat for birds, invertebrates and small mammals, old orchards also hold the main genetic resource of old local fruit varieties that have otherwise virtually disappeared from production. Although a significant number of orchards have been lost in the Borough, the number of existing orchards indicates that there is a market for the produce and/or an enthusiasm from private growers to continue orchard cultivation.

Agriculture

- 3.65 As shown in **Figure 3.10** nearly all of Colchester is classified as Grades 1-3 in the 'Best and Most Versatile' land classification. The majority of the northern half of the Borough, along with the area around Tiptree and south east of Stanway is classified as Grade 2 with a pocket of Grade 1 agricultural land to the south of Boxted. The south of the Borough and parts of the northern area (corresponding roughly with watercourses of the Colne & Stour) which are not urban are mainly classified as Grade 3. The potential fertility of these areas is also indicated through the 'soilscapes website', which suggest that much of the Borough, including the urban areas, have a 'moderate to high fertility rating. Large areas between Colchester Town and Tiptree are identified as 'Lime-rich loamy and clayey soils with impeded drainage', which have a high fertility rating. Whilst the agricultural land classification indicates the potential for food and fuel production at the landscape scale, the potential fertility of areas in and around the urban areas indicates the potential for urban and community food projects.

Local food markets

- 3.66 There are several farmers' markets in Colchester Borough¹². The first Friday of every month there is a Farmer's market as part of the weekly Friday and Saturday markets at Colchester Art Centre in Colchester Town. There are monthly farmers' markets at Dedham and Wivenhoe. Objective LFB3 of the Dedham Vale AONB and Stour Valley Management Plan (2010 – 2015) is to 'encourage environmentally sensitive agricultural systems that include food production for local markets'.

¹² http://www.colchester.gov.uk/Info_page_two_pic_2_det.asp?art_id=2010&sec_id=634

3.67 Local food production includes two vineyards; a modern vineyard at Boxted, producing wine since 1995 (Carter's Vineyard), and one at East Mersea ('Mersea Island Vineyard'), which also produces wine and provides accommodation for tourists and wedding receptions. Colchester Oyster Fishery on Mersea has been supplying oysters and shellfish since 1189, and includes local suppliers who have been operating since 1792.

Community gardens and food growing initiatives

3.68 There are a number of established and proposed community food growing projects in the Borough. These demonstrate support for such local level initiatives. Existing community food growing initiatives include:

- **The BIG garden project:** This organic fruit and vegetable community garden is a short walk from High Woods Country Park Visitor Centre and has been running for over 3 years. The garden has received a Green Flag award for its innovation in Conservation and Heritage. The project aims to 'promote health and well being by producing local food in a sustainable way and to encourage community involvement'. People of all ages and abilities are encouraged to volunteer and have a share in the harvests. Public events such as 'apple day' and smaller 'horticultural therapy sessions' are run at the site, as well as sessions for school visits.
- **Myland Community Garden:** In 2007 a community garden was developed at Myland through the Community Action Mile End (CAM) project, which was part funded by Colne Housing. The Community Action in Mile End (CAM) project was set up in June 2006.
- **Old Heath Road Recreational Ground Community Garden:** This proposed community garden will be an open community space for residents of New Town, Old Heath and the Hythe to access, see and experience. Key features will include:
 - Fruit and nut orchards
 - Wildlife areas, including long grasses, edible hedges, pond and 'bug hotel'
 - Sensory plants
 - Child-centred spaces – e.g. nature play areas
 - Vegetable growing
 - Social spaces

- Food preparation area.

3.69 There is also a high demand for allotments in the Borough. The Colchester Allotment Association¹³ identifies 17 allotments in Colchester, providing over 800 plots. There are currently no spaces available and there are waiting lists for all allotments. New allotment plots have recently been provided at Bergholt Road and an additional plot has been made available as a community plot. New allotments are planned through Growth Areas, e.g. at Stanway, but the waiting lists suggest there is a desire for local food production throughout the Borough.

Wood fuel

3.70 The Essex Biodiversity Action Plan (BAP) identifies that a large percentage of woods in Essex contain significant levels of coppice. Ash, field maple and hazel coppice is the major stand type in Essex, especially on the chalky boulder clay, with hornbeam, sweet chestnut and small-leaved lime being dominant in other areas. The Essex BAP notes that in most cases there has been little or no coppicing for at least 50 years due largely to the loss of markets for coppice products. This problem is exacerbated in smaller woods where there are fewer opportunities to market the products.

3.71 The National Inventory of Woodlands and Trees indicates that there are just two existing ‘coppice or coppice with standards’ forestry types in the Borough; a 1.5 hectare site in High Woods Country Park, and a larger 5.7 hectare site at east Donyland, south of Rowhedge. Despite this apparently low level of existing coppicing, Colchester Borough contains large areas of woodland, for example in the Roman River Valley which hold the potential for coppicing for woodfuel. Areas such as the Roman River Valley, areas at Tiptree and Colchester town are also close to the more densely populated areas and therefore local markets.

Key Issues

- There has been a significant loss of traditional orchards particularly in the last thirty years.
- Old Orchards are a BAP priority habitat, with objectives to prevent further loss of existing old orchards, restore and manage existing old orchards, and create new orchards (community / school / private) using

¹³ <http://www.colchester-allotments.org.uk/>

locally characteristic stock.

- Waiting list for allotments suggests there is a demand for more local food growing facilities.
- There are a number of successful local food initiatives in Colchester but these are largely focussed in Colchester Town. There is however a local food initiative at Wivenhoe (Station Community Garden, run by Transition Town Wivenhoe).
- The wealth of woodland in the Borough may provide opportunities for coppicing for wood fuel.
- The potentially high fertility and agricultural value of the land suggests there are many opportunities for food and fuel production in the Borough.

ACCESS, RECREATION AND MOVEMENT

Key sources of information
Open Space, sport and recreation assets mapped as part of the 2007 PPG17 Study
Community Woodlands
Commons and Village Greens
Country Parks with +25% managed for wildlife
Urban Parks with +25% managed for wildlife
Promoted Strategic walks and cycle paths
Analysis of Accessible Natural Greenspace Provision in Essex Including Southend-on-Sea and Thurrock Unitary Authorities (Essex Wildlife Trust and Natural England, August 2009)
English Heritage Parks & Gardens Register
Colchester Parks and Greenspaces Strategy (Colchester Borough Council, 2008)
Analysis of Accessible Natural Greenspace Provision for Essex, including Southend-on-Sea and Thurrock Unitary Authorities (Natural England and Essex Wildlife Trusts, 2009)
ECC Rights of Way Improvement Plan (ECC, 2009)
Dedham Vale AONB and Stour Valley Management Strategy (2010)
The PPG17 Open Space Sport and Recreation Study (2007)
Colchester Play Strategy (2007)
Habitats Regulations Assessment of Colchester's Local Development Framework Site Allocations DPD (CBC, 2009)

Characterisation

Parks and Green Spaces

- 3.72 The PPG17 open space data in **Figure 3.12** shows that there is a comprehensive set of open spaces in the Borough, concentrated prominently within and around the urban area of Colchester Town. The majority of these spaces are categorised in the data as 'green space'.
- 3.73 Colchester Town is served by several large green spaces, which include

woodland (e.g. High Woods Country Park in the north), formal parks (e.g. Castle Park in the town centre) and informal recreation areas (such as Abbey Fields to the south). The PPG17 study recognises the following parks and greenspaces in Colchester:

- Castle Park
- Old Heath Recreation Ground
- East Bay Park
- Victoria Esplanade
- Cudmore Grove Country Park
- Lorkin Way Park
- Grove Lake
- High Woods Country Park
- High Woods Open Space
- Wivenhoe House Park, University of Essex
- Gosbecks Archaeological Park

3.74 A number of nature reserves and wetland areas are also close to the town centre. For example, Cymbeline Meadows is to the west of Colchester, and The Moors to the east of the town and Middlewick 'Natural and Semi-natural' area.

3.75 There is a range of varied environments within and on the edge of the Borough attracting significant numbers of visitors. These include:

- Dedham Vale Area of Outstanding Natural Beauty (AONB) to the north;
- Saltmarshes and coastline around West Mersea;
- Abberton and Ardleigh Reservoirs;
- Tiptree Heath;
- Fordham Woods.

Access Networks

Strategic Routes

3.76 There are no National Trails within or near to Colchester Borough, but the Essex Way, a strategic route stretching 81 miles between Epping and

Harwich, traverses the north of the Borough. The Stour Valley Path, another long distance path, also runs through some northern parts of the Borough.

Other Rights of Way

- 3.77 There are about 345 miles of Rights of Way in the Borough and there is an extensive Rights of Way network in the north of the Borough, with gaps to the north-west and immediately north of the A12. The south of the Borough appears to be less well served, with gaps in the network to the south-west of Colchester Town, around Abberton Reservoir and around the salt marshes to the south of the Borough. There are very few bridleways in the Borough.

Cycle Routes

- 3.78 Sections of the National Cycle Network run through the Borough. These run broadly diagonally, between Tiptree, through Colchester and up towards Hadleigh. A traffic free route also runs between Colchester and Wivenhoe, broadly along the Colne. The Sustrans National Cycle Network map also suggests there are proposed routes/connections to the National Cycle Network between Colchester and Sudbury to the north west, and Wivenhoe and the coast, along the Colne. Route 51 of the National Cycle Network currently runs between Wivenhoe and Harwich.
- 3.79 'Cycle Colchester', a partnership between Essex County Council, Colchester Borough Council, local cycling groups and a number of other organisations (including Sustrans), are delivering £4 million of improvements to Colchester's cycle paths and signs, and offering cycle training. The organisation's website promotes a number of cycle routes through Colchester Town.

Themed Routes

- 3.80 There are a number of themed routes running through the town and around the Borough. A heritage trail runs through the town centre, and the 'town to sea' trail runs from the Colchester Town to the Hythe area along the Colne to Wivenhoe. The route was developed with the local community and is marked by specially commissioned sculptures which reflect the history of the area. The View Finder Trail is a 28km route from Colchester Town to Wivenhoe following the Colne River taking in key vistas and viewpoints. The trail is the initiative of artist Michael Goodey. A 3.2km art trail designed for walkers and cyclists which follows the tidal River Colne from the Visitor Centre in Colchester town down to the Hythe, through some of the lesser

known areas of Colchester.

Abberton Reservoir

- 3.81 Abberton Reservoir is to be expanded and the works have already commenced. Essex & Suffolk Water (ESW) will be increasing the network of permissive footpaths, cycle routes and bridleways near the reservoir, increasing the network from 4km to 16km. The new routes include a circular walk around the central section of the reservoir. In addition, ESW has made funds available towards the provision of new rights of way in the proximity of the reservoir. A new Essex Wildlife Trust Visitors Centre will be provided as part of the expansion proposals.

Transport

- 3.82 Colchester is an important transport node as a result of its road and rail links to London and Stansted Airport and the ports of Harwich and Felixstowe. The 2001 census indicated that nearly 80% of households own one or more cars and vans and this figure is expected to have increased in recent years. Only 13% of people travel to work by public transport.

Key Issues

Adequacy of Provision

- The majority of respondents in the PPG17 household survey thought there was an adequate number of parks and gardens. A similar result was found for natural and semi-natural greenspaces.
- Teenage facilities were recognised as a priority area, with 63% recording an inadequate supply. A significant number also expressed the opinion that play areas for children and amenity greenspaces are undersupplied in the Borough.
- For other types of facility such as outdoor open space and allotments, opinion was fairly evenly split between those who felt there was an adequate supply, and those who felt that more were needed.

A note on GI provision standards used in this Strategy:

In addition to interpreting the findings of the PPG17 Study, this strategy has applied **Natural England's Accessible Natural Greenspace Standard (ANGSt)** to understand provision of semi natural greenspace. This is a widely accepted standard for use in green infrastructure planning, although it relates primarily to centres of population and is most useful when considered this way. There are no other national standards which could be applied in rural areas, so ANGSt is often used to consider provision across the whole study area in GI Strategies, although it is recognised that this may 'skew' results in relation to the picture it paints of sub regional provision in rural areas.

The ANGSt standard applies a four level hierarchy to understand quantitative provision, with the minimum level defined by the standard being neighbourhood provision (sites of **2 hectares and upwards**). This is appropriate to a strategic planning document such as this Strategy.

ANGST considers only spatial elements and does not apply to access links and rights of way. Thus, a rural area may appear underprovided in relation to access to natural green space despite a wealth of right of way provision, which in reality serve this function.

Some issues in relation to Accessible Natural Greenspace (ANG) provision

Quality

- The Colchester Parks and Greenspaces Spaces Strategy (Colchester Borough Council, 2008), looked at opinion and usage surveys and found that levels of satisfaction with the quality of parks and green spaces in Colchester were high, and that usage levels were also high.

Access and connectivity

- Colchester PPG17 Study recommends that linking existing green corridors with open spaces in the Borough should be a key priority for the Council to provide opportunities for informal recreation and alternative means of transport.
- Whilst there is an extensive network of footpaths within the AONB, the AONB Management Plan has identified the need to improve access for cyclists, horse riders and the less able. Whilst the Managing a Masterpiece project will improve access for tourist/visitors, promotion of sustainable access to the AONB will continue to be relevant for both

the AONB Partnership and Colchester Borough Council.

- The Roman River Valley is identified in the 2008 wildlife sites review as an area that provides better than average opportunities for countryside access, recreation and education with potential for a new project to integrate land management, recreation and biodiversity.

Visitor Pressures and Site Management


- The Habitats Regulations Assessment of Colchester's Local Development Framework identifies increased visitor pressure as a potentially significant issue for internationally designated coastal habitats in the south of the Borough. A programme of monitoring visitor numbers to international sites is currently being undertaken to establish if and where adverse impacts are occurring.
- The Haven Gateway Green Infrastructure Strategy identifies regional sites such as Alton Water as providing viable alternative opportunities for recreation to sensitive coastal areas. For Colchester Borough however, the Strategy identified the current lack of suitable regional scale ANG to provide this function. Whilst the Strategy identified potential in developing such a resource around Abbots Hall and neighbouring sites this is not likely to come forward in the immediate future and so mitigation measures are needed to address this issue. Site management measures may therefore be implemented to mitigate any adverse impacts identified through the programme of monitoring.
- Dedham Vale AONB and Stour Valley Management Plan recognises that housing growth in surrounding towns, including Colchester, will increase recreational pressure on the AONB.
- The Essex Rights of Way Improvement Plan suggests that rights of way in the county require better promotion, signage and maintenance, more bridleways and provision for off-road cycling, less anti-social behaviour and better accessibility for all.
- Traffic growth and the dominance of the car as the main mode of travel are major challenges. Combined with a limited number of radial routes in and out of Colchester Town centre areas roads that become congested include the A12, A133 and A134 and several of the minor roads in the Borough, particularly during peak times.
- The Dedham Vale AONB and Stour Valley Management Plan aims to

encourage greater understanding and appreciation of the physical and historic landscapes and heritage features. Priorities include developing opportunities for more sustainable modes of travel, given that the vast majority of visitors arrive by car. A new Hopper Bus has recently been provided in the AONB to help address this issue. The AONB Partnership has also secured grant aid funding to deliver access enhancement and interpretative/educational projects within the AONB.

Colchester Borough Green Infrastructure Strategy

Figure 3.1: Population Density

Key


 Borough boundary

 Growth Areas

Population per sq km

 50 - 200

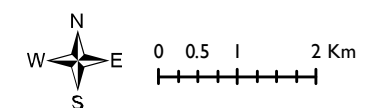
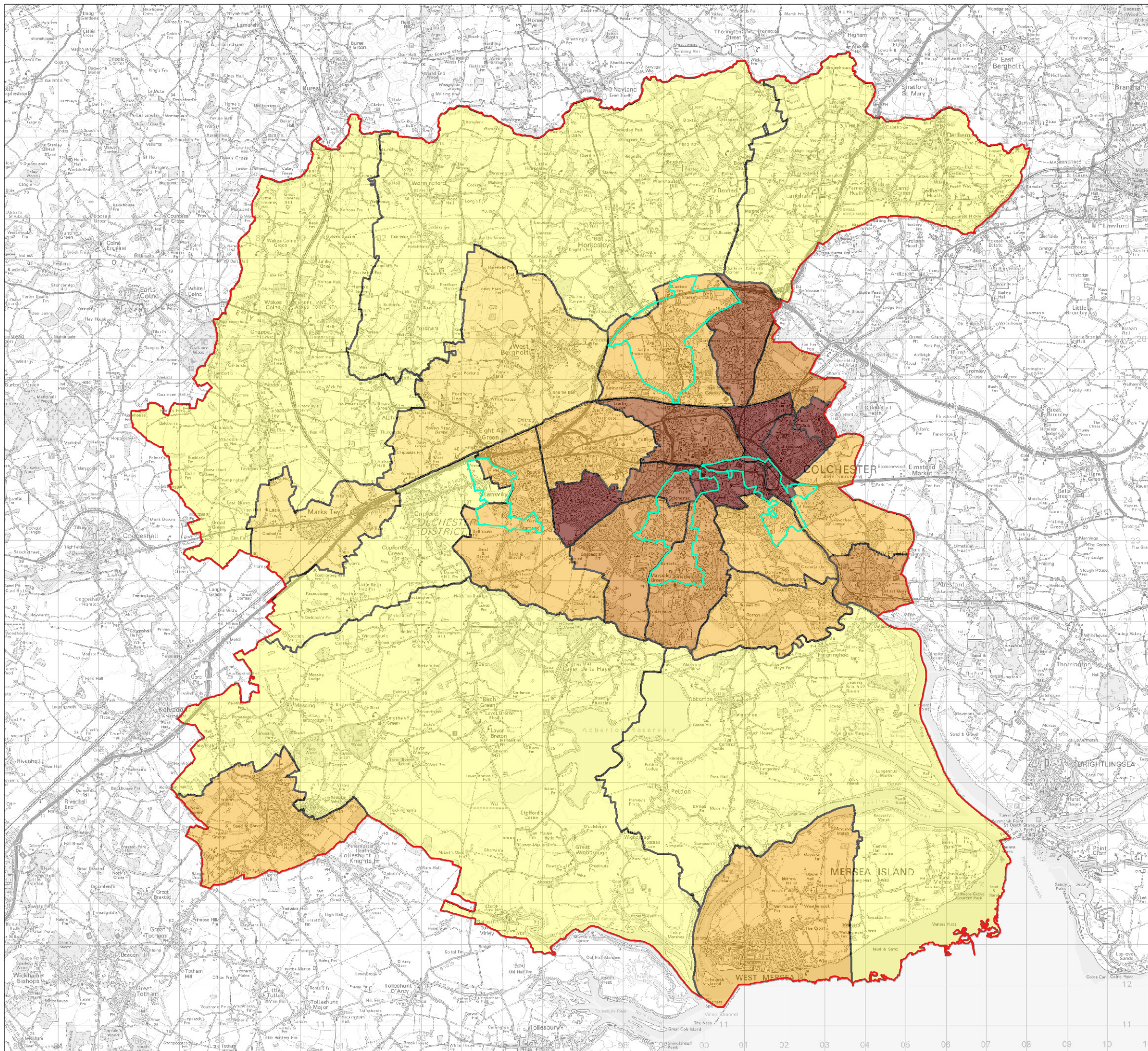
 201 - 500

 501 - 1500

 1501 - 2500

 2501 - 3500

 3501 - 6000



Source: Colchester Borough Council

Date: 20/04/2011






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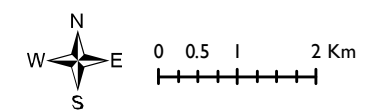
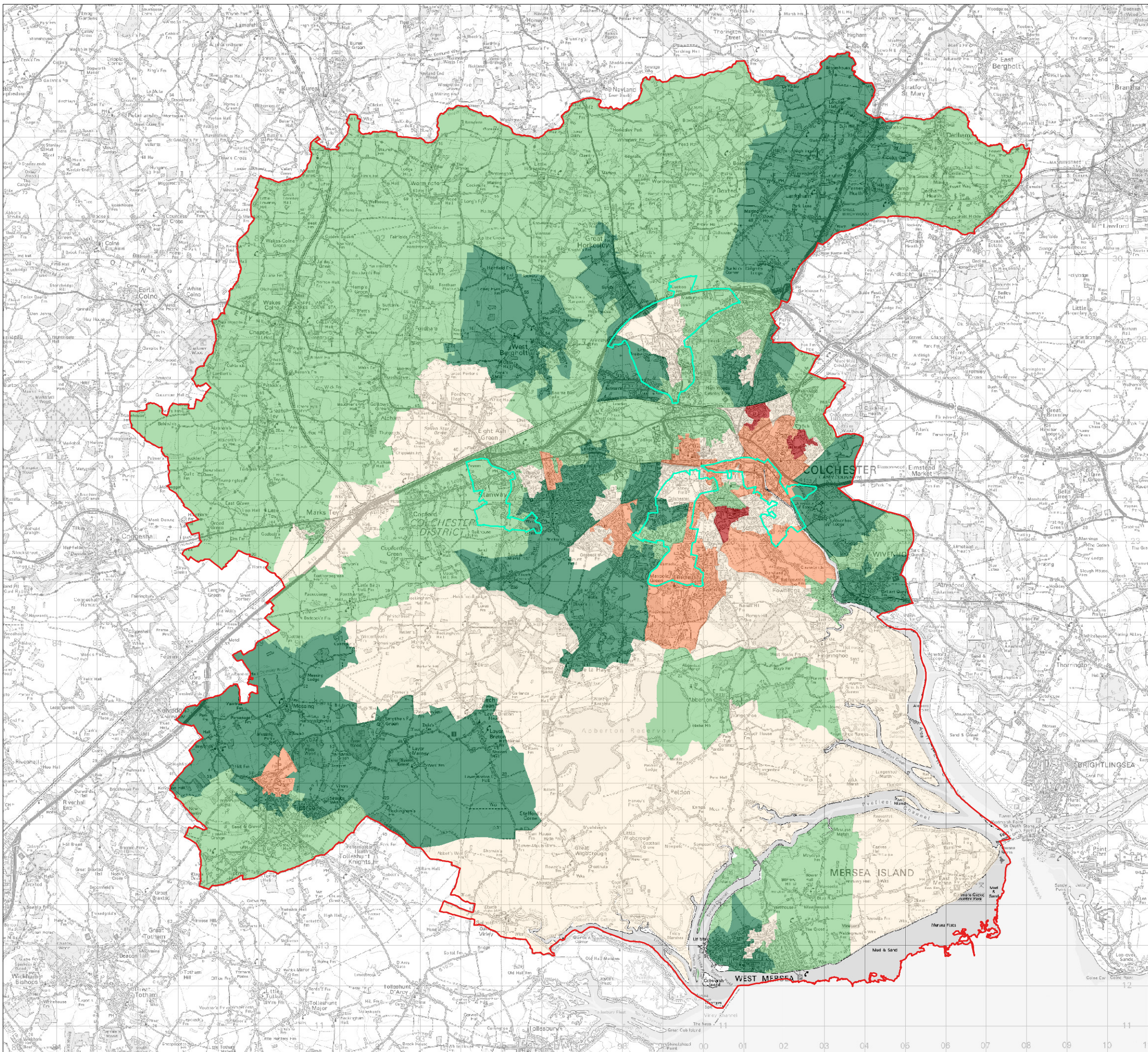


Colchester Borough Green Infrastructure Strategy

Figure 3.2: Indices of Multiple Deprivation

Key

-  Borough boundary
-  Growth Areas
- Indices of Multiple Deprivation**
-  0 - 20 (Most deprived)
-  20 - 40
-  40 - 60
-  60 - 80
-  80 - 100 (Least deprived)



Source: ONS

Date: 20/04/2011
Revision:

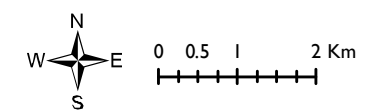
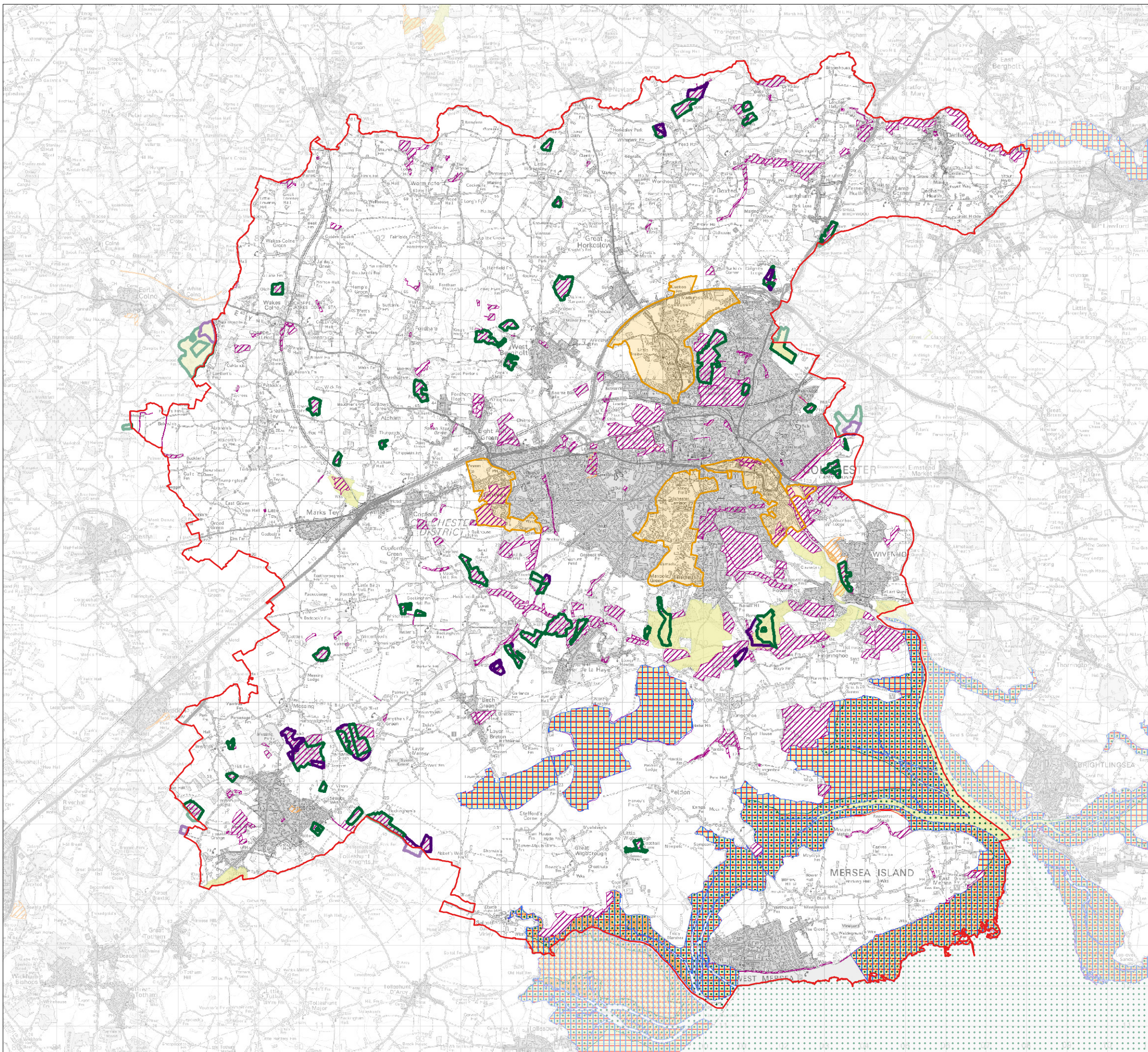


Colchester Borough Green Infrastructure Strategy

Figure 3.3: Nature Conservation Designations

Key

-  Borough boundary
-  Growth Areas
-  Special Areas of Conservation (SAC)
-  Special Protection Areas (SPA)
-  Sites of Special Scientific Interest (SSSI)
-  Ramsar Sites
-  National Nature Reserves (NNR)
-  Local Nature Reserves (LNR)
-  Ancient & Semi-Natural Woodland
-  Ancient Replanted Woodland
-  Local Wildlife Sites
-  Important Bird Areas (IBA)



Source: Colchester Borough Council
Natural England

Date: 20/04/2011
Revision:

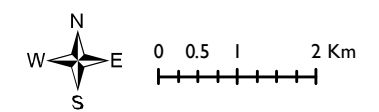


Colchester Borough Green Infrastructure Strategy

Figure 3.4: Biodiversity Action Plan Habitat Types

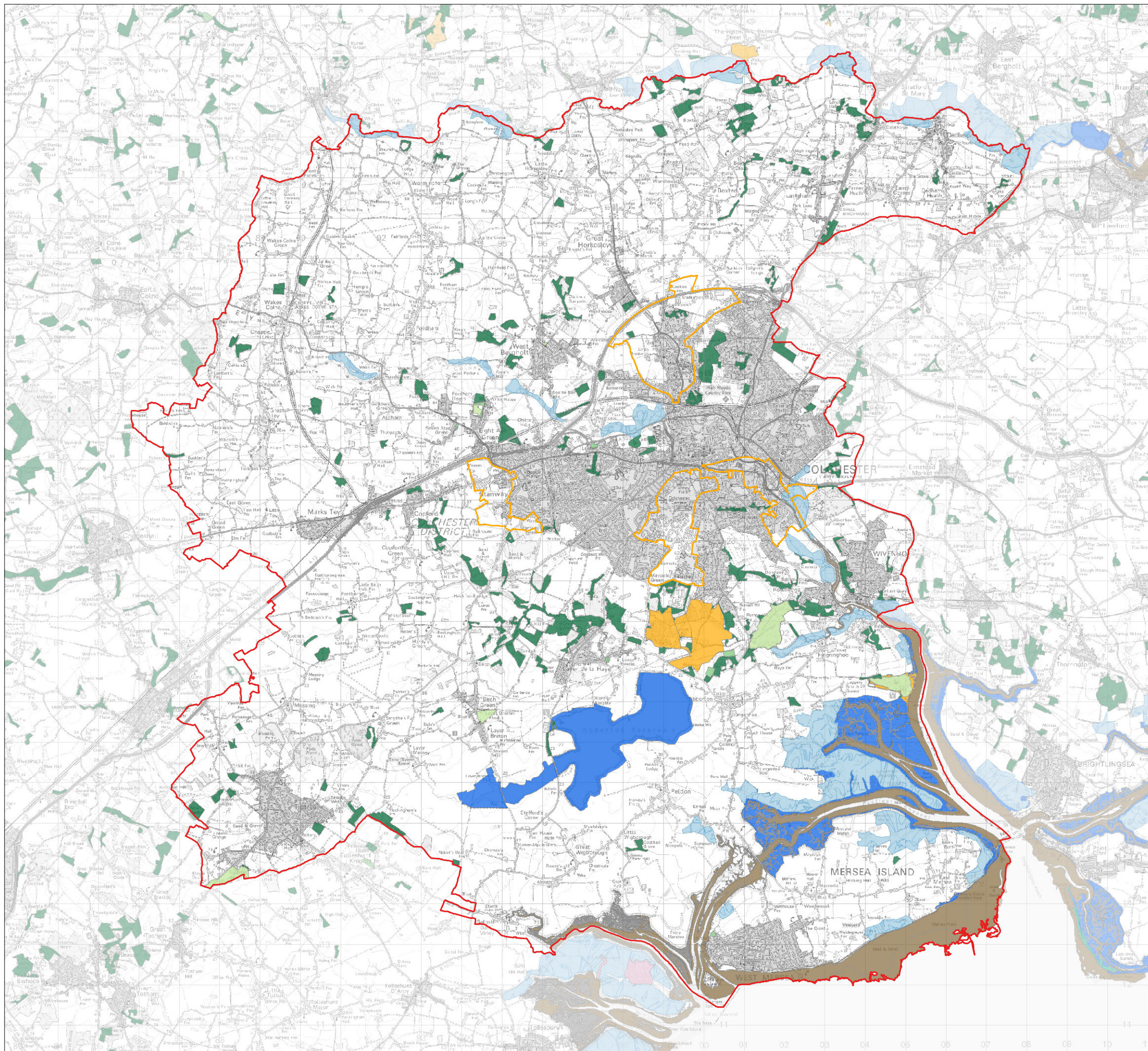
Key

-  Borough boundary
-  Growth Areas
-  Coastal and floodplain grazing marsh
-  Coastal vegetated shingle
-  Fens
-  Habitat Action Plan woodland
-  Lowland dry acid grassland
-  Lowland heathland
-  Maritime cliff and slope
-  Mudflats
-  Purple moor grass and rush pastures
-  Reedbeds
-  Undetermined grassland



Source: Natural England


Date: 20/04/2011
Revision:



Colchester Borough Green Infrastructure Strategy


Figure 3.5: Regional Character Types


Key

 Borough boundary

 Growth Areas


East of England Landscape Character Types

 Wooded Plateau Farmlands


 Plateau Estate Farmlands

 Valley Settled Farmlands


 Lowland Settled Farmlands

 Wooded Hills and Ridges

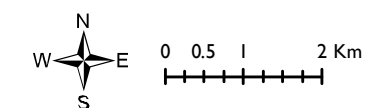
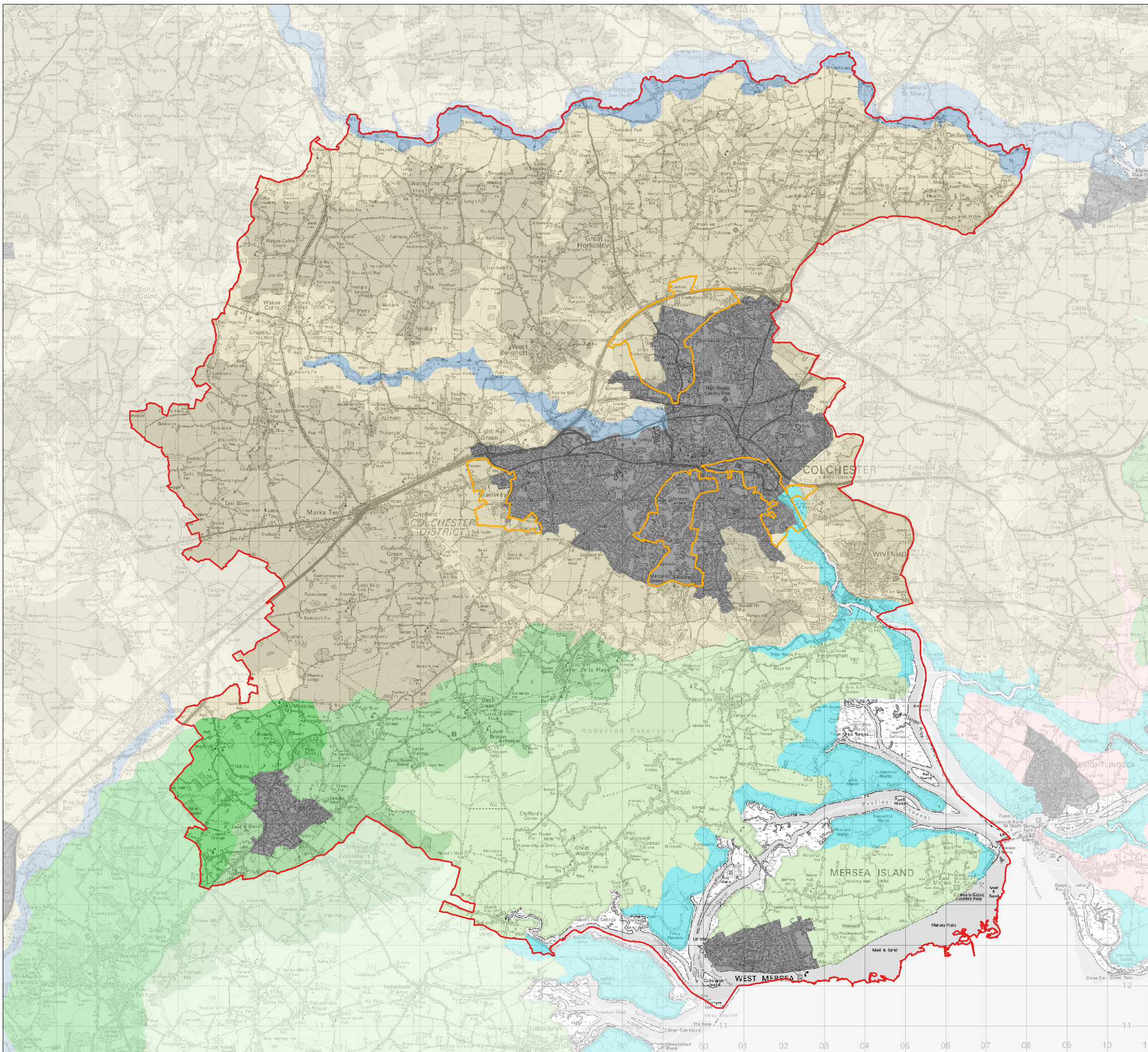
 Wooded Plateau Claylands

 Lowland Settled Claylands

 Valley Meadowlands

 Coastal Levels

 Urban



Source: Colchester Borough Council

Date: 20/04/2011





Revision:



































Colchester Borough Green Infrastructure Strategy

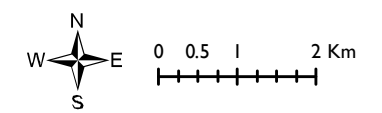
Figure 3.6: Colchester Borough Landscape Character Areas and Landscape Designations

Key

-  Borough boundary
-  Growth Areas
-  Dedham Vale AONB
-  Area of Special Character

Landscape Character Areas

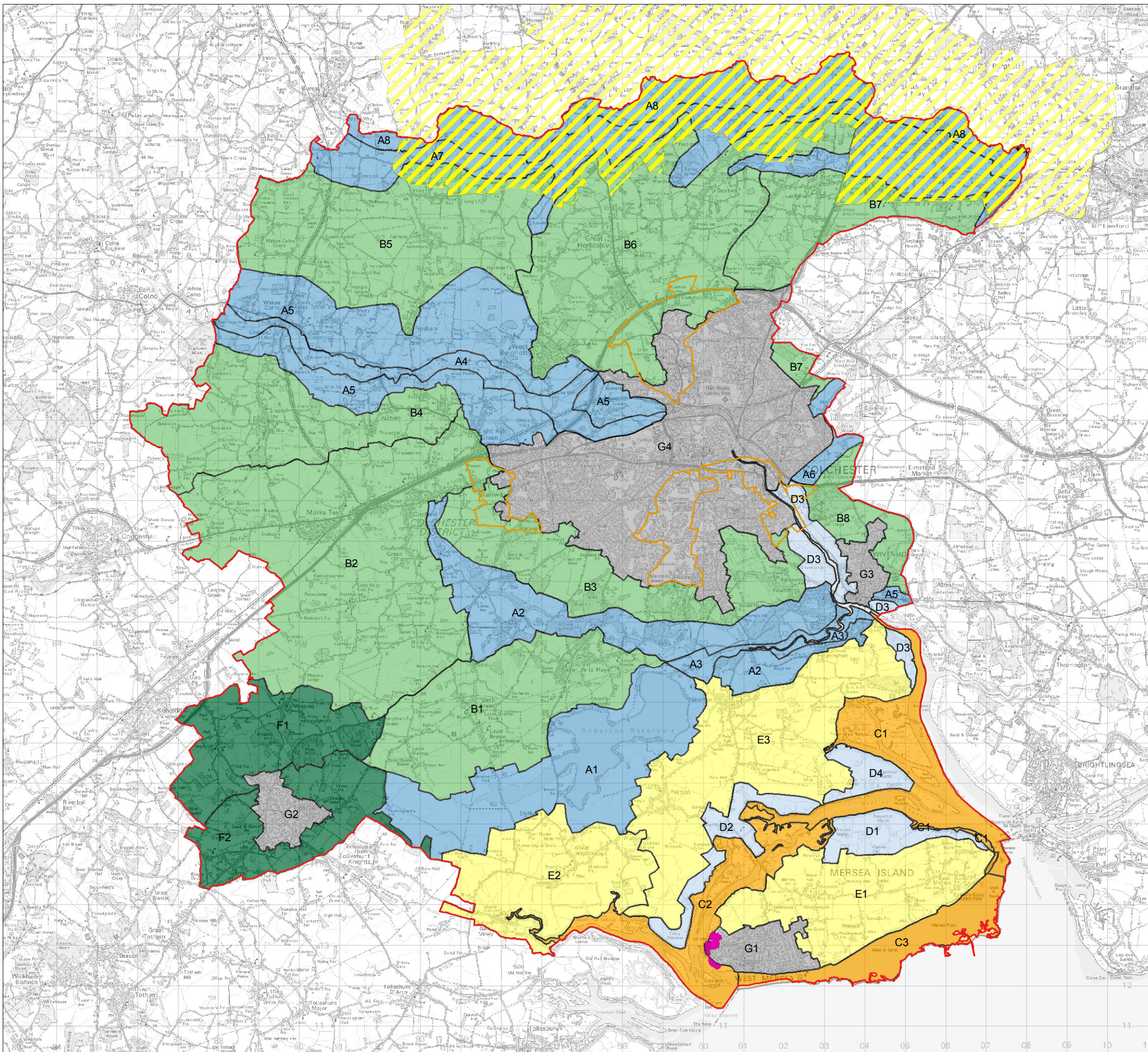
-  A1: Abberton Flooded River Valley
-  A2: Wooded Roman River Valley
-  A3: Roman River Valley Floor
-  A4: Colne River Valley Floor
-  A5: Colne River Valley Slopes
-  A6: Ardleigh River Valley
-  A7: Stour River Valley Slopes
-  A8: Stour River Valley Floor
-  B1: Layer Breton Farmland Plateau
-  B2: Easthorpe Farmland Plateau
-  B3: Southern Colchester Farmland Plateau
-  B4: Great Tey Farmland Plateau
-  B5: Rochfords Farmland Plateau
-  B6: Great Horkesley Farmland Plateau
-  B7: Langham Farmland Plateau
-  B8: Wivenhoe Farmland Plateau
-  C1: Fingringhoe Open Coastal Estuarine Marsh
-  C2: Strood & Salcott Open Coastal Estuarine Marsh
-  C3: West Mersea Estuarine Marsh/Mudflats
-  D1: Mersea Island Drained Coastal Estuarine Marsh
-  D2: Feldy Drained Coastal Estuarine Marsh
-  D3: Colne Drained Coastal Estuarine Marsh
-  D4: Pyefleet Drained Estuarine Marsh
-  E1: Mersea Island Coastal Farmland
-  E2: Great & Little Wigborough Coastal Farmland
-  E3: Langenhoe Coastal Farmland
-  F1: Messing Wooded Farmland
-  F2: Tiptree Wooded Farmland
-  G1: West Mersea Urban Landscape
-  G2: Tiptree Urban Landscape
-  G3: Wivenhoe Urban Landscape
-  G4: Colchester Urban Landscape



Source: Colchester Borough Council

Date: 20/04/2011








Revision:

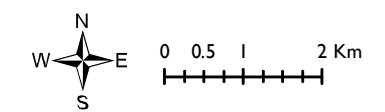
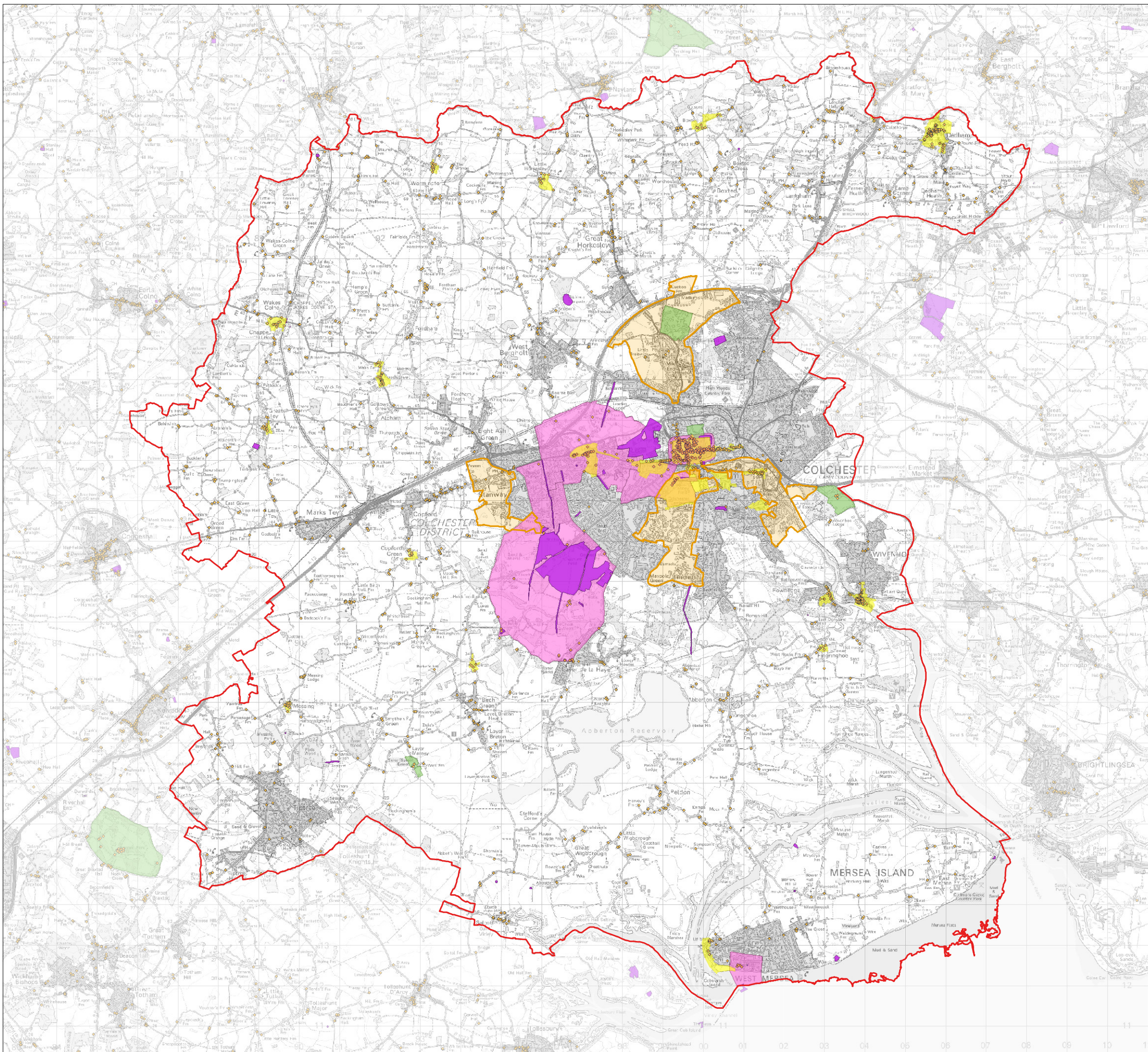


Colchester Borough Green Infrastructure Strategy

Figure 3.7: Cultural Heritage

Key

-  Borough boundary
-  Growth Areas
-  Scheduled Monuments
-  Registered Parks and Gardens
-  Listed Buildings
-  Areas of High Archaeological Potential
-  Conservation Areas



Source: Colchester Borough Council
English Heritage

Date: 20/04/2011
Revision:



Colchester Borough Green Infrastructure Strategy

Figure 3.8: Historic Environment Character

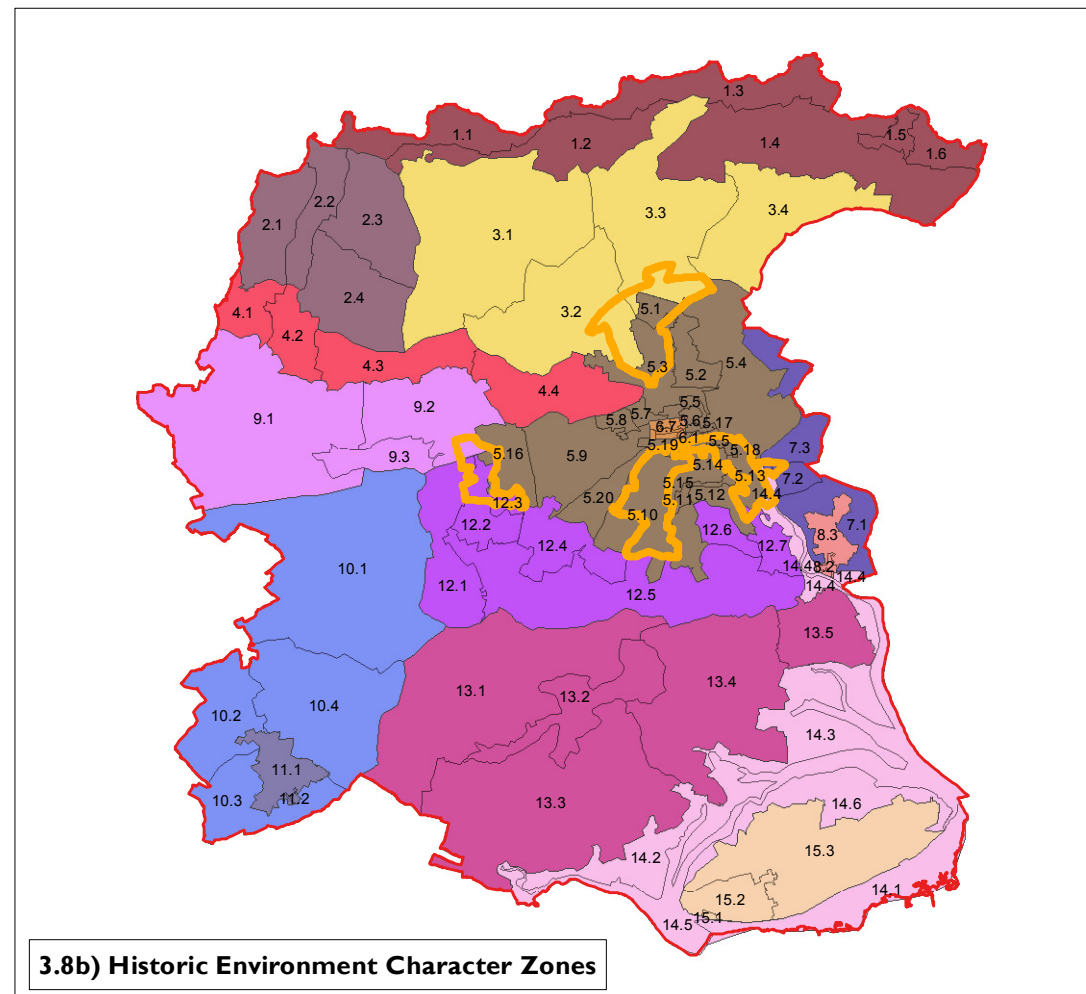
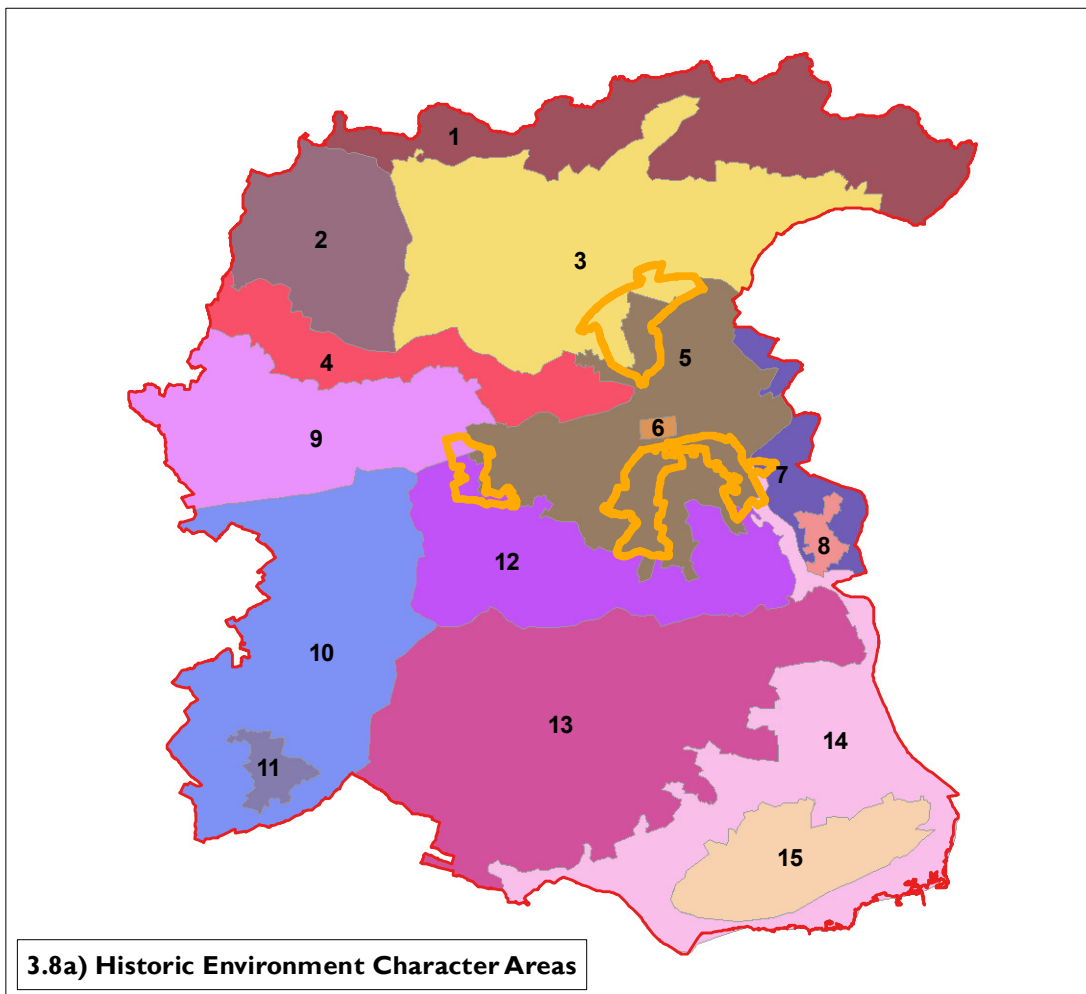


Figure 3.8a

- Borough boundary
 - Growth areas
- Historic Environment Character Areas
- 1: RIVER STOUR VALLEY
 - 2: BURES AND FORDHAM
 - 3: GREAT HORKESLEY AND WEST BERGHOLT
 - 4: COLNE VALLEY
 - 5: MODERN COLCHESTER
 - 6: COLCHESTER WALLED TOWN
 - 7: WIVENHOE AREA
 - 8: WIVENHOE TOWN
 - 9: GREAT TEY AREA
 - 10: MESSING AND MARKS TEY AREA
 - 11: VILLAGE OF TIPTREE
 - 12: ROMAN RIVER VALLEY
 - 13: ABBERTON AREA
 - 14: COLNE ESTUARY
 - 15: MERSEA ISLAND

Figure 3.8b

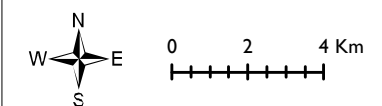
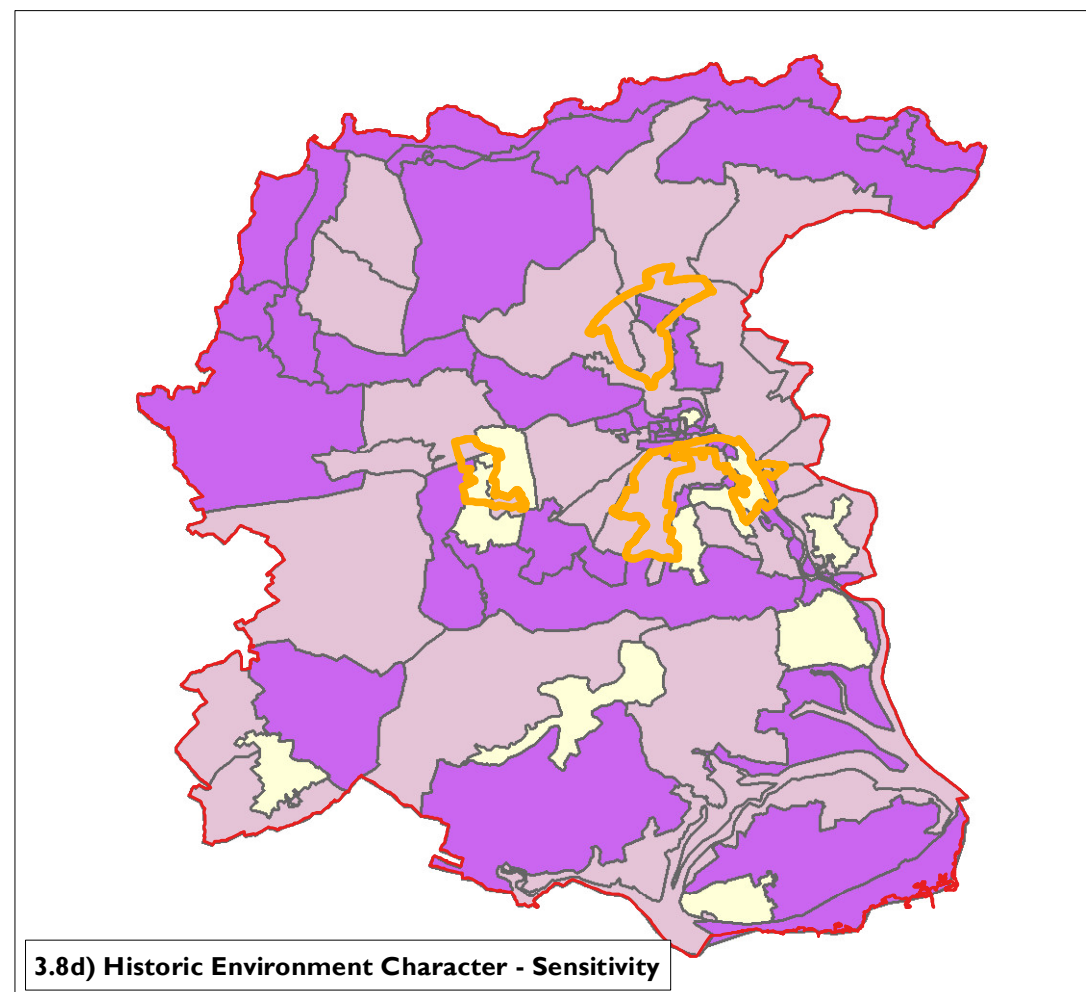
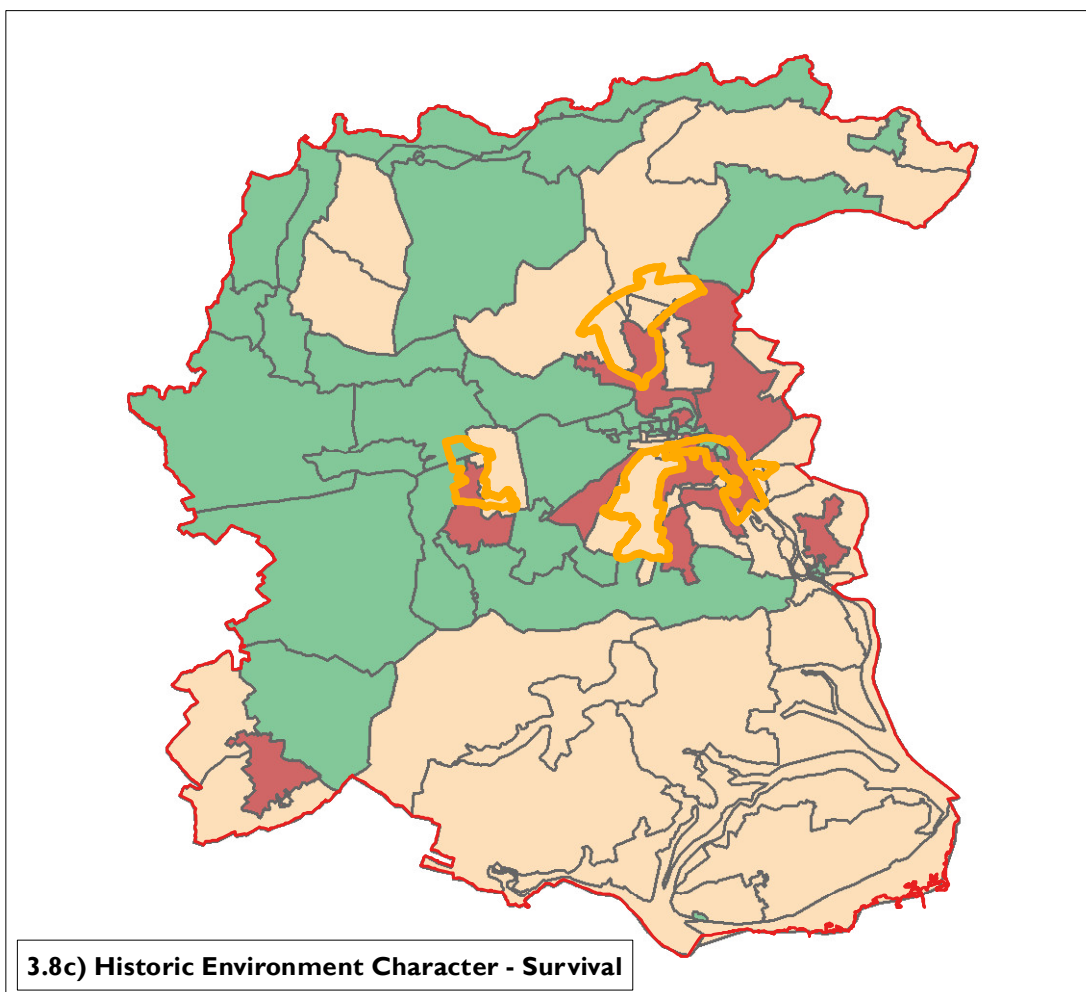
- Historic Environment Character Zones

Figure 3.8c

- Survival
- Zone extensively disturbed by for instance quarrying or development. Likelihood is that whilst many of the assets have been disturbed or destroyed there is the potential for survival in some areas or of some types of assets.
 - Zone has little disturbance but there are few known assets, or there are many known assets but there has been some adverse effects from, for instance, development or quarrying.
 - Zone contains known assets which are well preserved.

Figure 3.8d

- Sensitivity
- The historic environment of the zone could accommodate medium to large scale development, however specific historic environment assets may suffer adverse effects.
 - Zone has little disturbance but there are few known assets, or there are many known assets but there has been some adverse effects from, for instance, development or quarrying
 - The zone's historic environment is highly sensitive to medium to large scale development







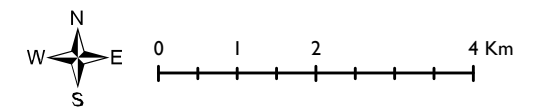
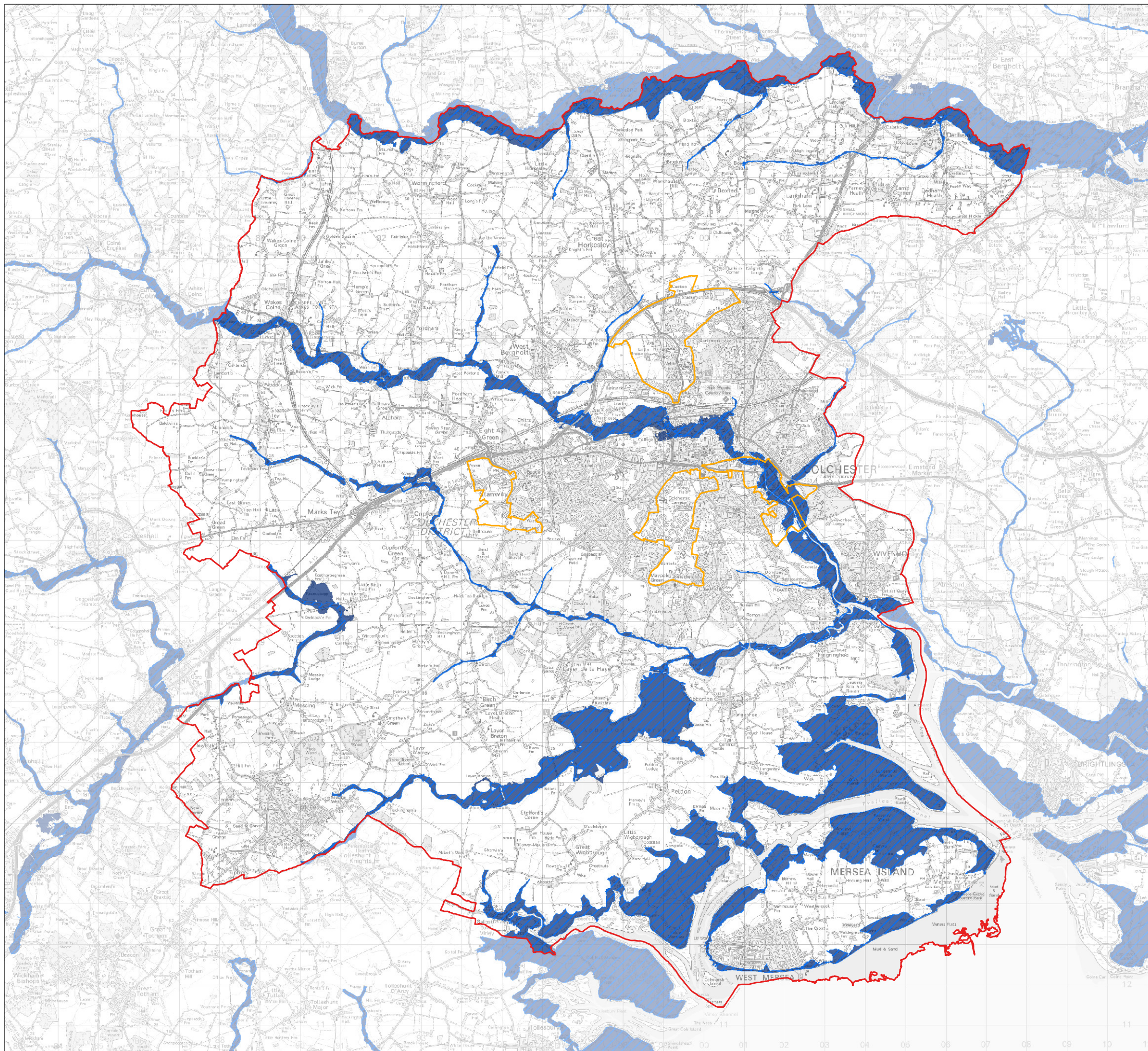
Source: EWT, Natural England Date: 20/04/2011

Colchester Borough Green Infrastructure Strategy

Figure 3.9: Flood Risk Zones

Key

-  Borough boundary
-  Growth Areas
-  Flood Zone 3
-  Flood Zone 2



Source: Environment Agency
Colchester Borough Council


Date: 20/04/2011
Revision:



Colchester Borough Green Infrastructure Strategy

Figure 3.10: Agricultural Land Classification

Key


 Borough boundary

 Growth Areas

Agricultural Land Classification

 Grade 1

 Grade 2

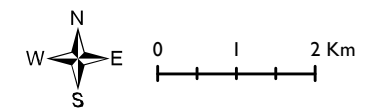
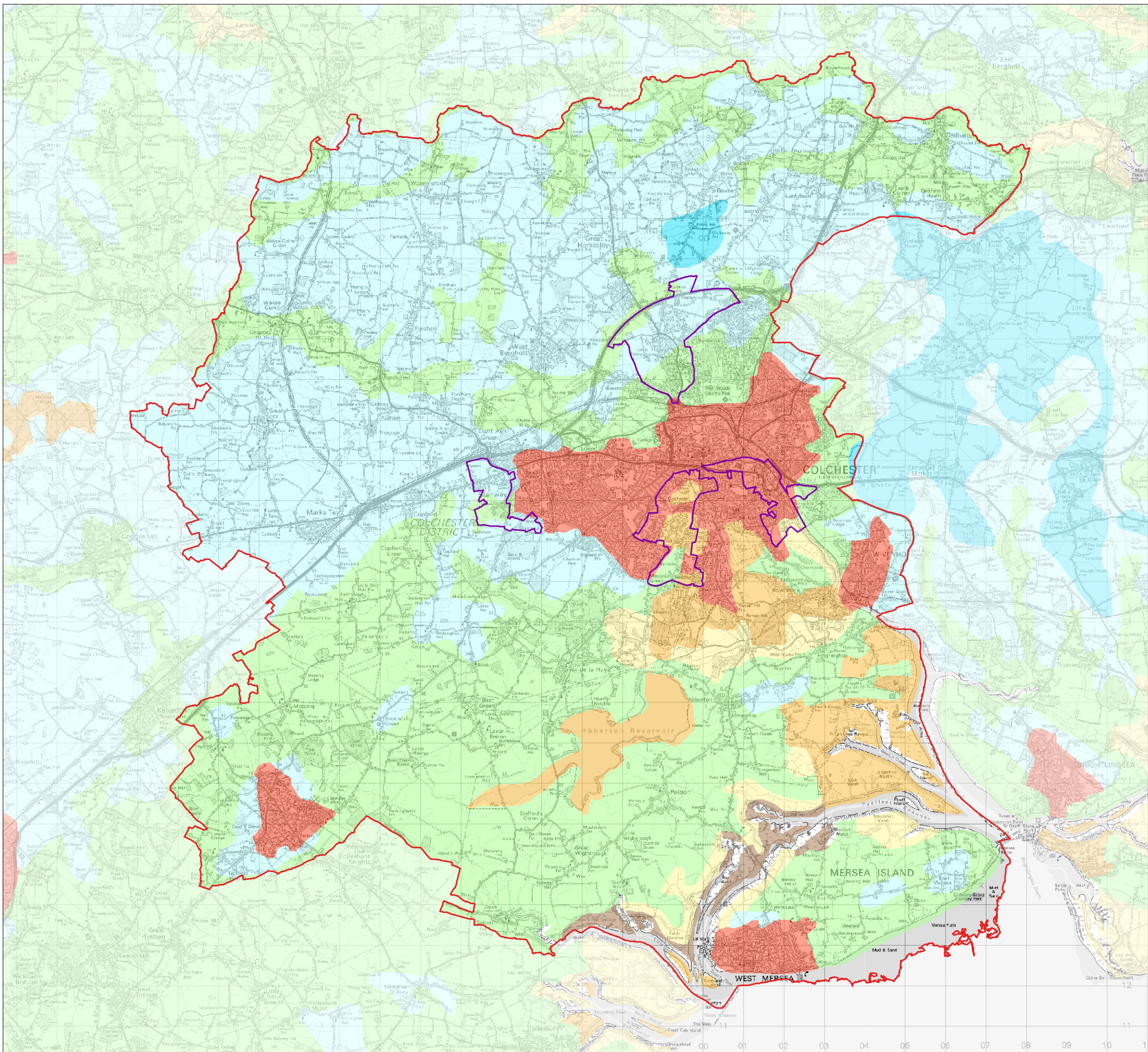
 Grade 3

 Grade 4

 Grade 5

 Non Agricultural

 Urban



Source: Natural England

Date: 20/04/2011


Revision:



Colchester Borough Green Infrastructure Strategy

Figure 3.1 I: Woodland Inventory

Key

 Borough boundary

 Growth Areas

Interpreted Forestry Type selection

 Broadleaved

 Coniferous


 Mixed

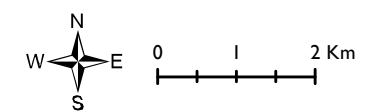
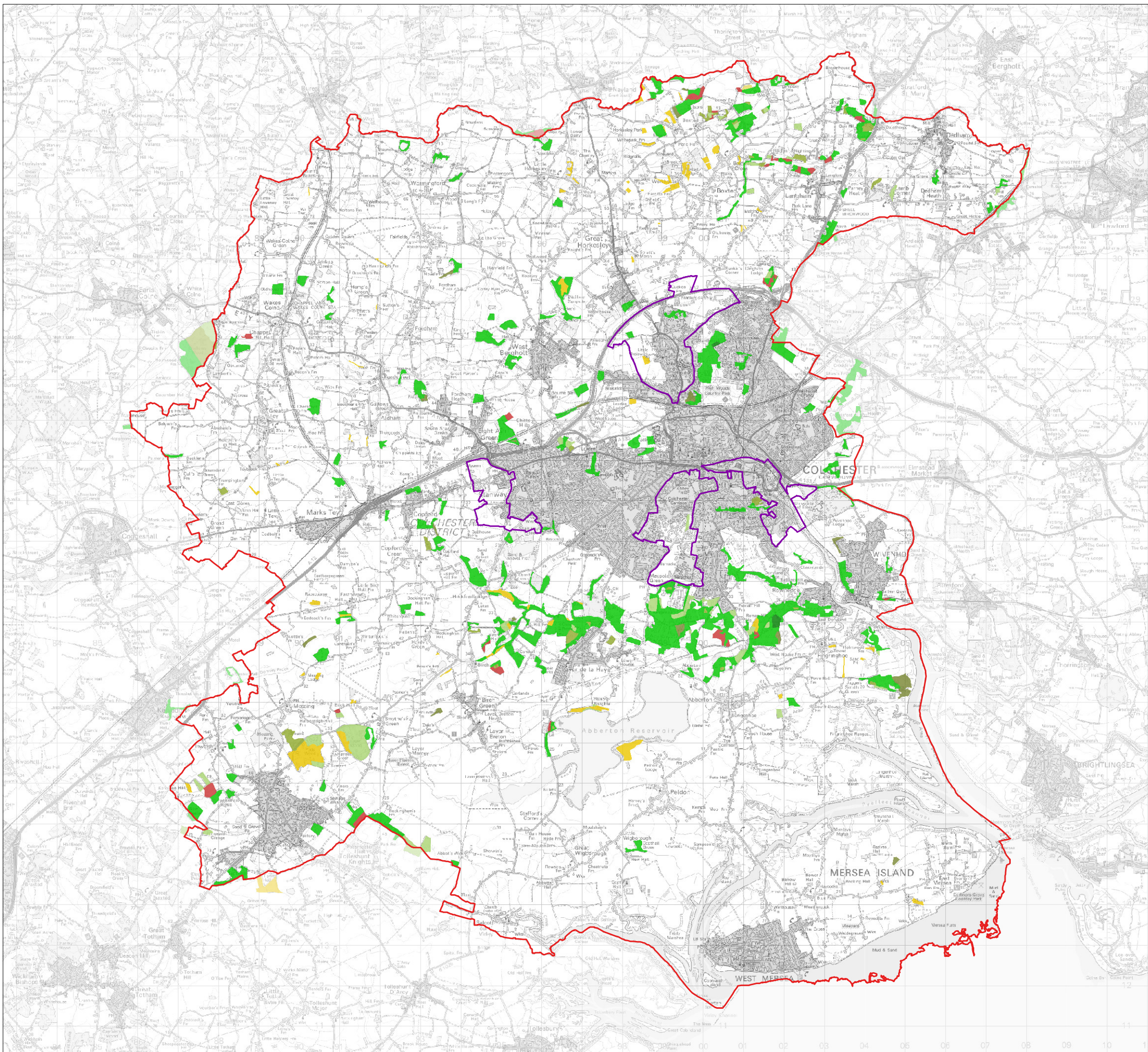
 Coppice

 Shrub

 Felled

 Ground prepared for planting

 Young trees



Source: Natural England

Date: 20/04/2011













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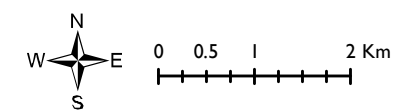


Colchester Borough Green Infrastructure Strategy

Figure 3.12: Open Spaces

Key

-  Borough boundary
 -  Action Zones
 -  Growth Areas
 -  Green links
 -  Access links
 -  National Route (Sustrans)
 -  NCN Link (Sustrans)
 -  Local cycle routes
-
- ### Open Space
-  Allotments and community gardens
 -  Amenity greenspace
 -  Cemeteries and churchyards
 -  Civic spaces
 -  Greencorridors beaches & estuaries
 -  Greenspace
 -  Outdoor sports facilities
 -  Parks and gardens
 -  Young people & children



Source: Sustrans
Colchester Borough Council

Date: 20/04/2011
Revision:

