

04 THE VISION

This section deals with the scale and growth of change predicted in Ashford over the next 30 years. It compares current Ashford with future Ashford against other places. It also promotes a strategic vision for the development of Ashford through the use of key themes embodied in the guiding principles set out by Ashford's Future partners.

In doing so, it clarifies the objectives established by the various workstreams, each informed by a range of background studies and developed in conjunction with the Client Group. These objectives provide the overall basis of moving forward with the development of a Strategic Growth Model and provide the basis for assessing the Working Masterplan.

The Vision derives from these objectives and establishes some overarching themes that can contribute to Ashford's future brand and values. These are important in communicating complex issues that underpin strategic growth and change to a wider public.

This section also deals with the way in which the Vision can be applied to the urban design of the town.

04.1 CLARIFYING THE OBJECTIVES

This section deals with growth in Ashford from the perspective of several specialist Workstreams.



The Workstreams

The formation of the ‘workstreams’ occurred at the project inception. Workstreams represent key areas of work that rely on specialist information and expertise. The role of the workstreams is to increase the net of expertise and participation within a specialist area of work. Each workstream group is led by a workstream coordinator from the Consultant group and a Client counterpart. The workstream group includes representatives from public organisations and agencies. The purpose of the workstreams is to explore and develop specific aspects of the project and to feed this back into the GADF process. The seven key workstreams are; Movement Networks (Alan Baxter and Associates), Environment (Studio Engleback), Infrastructure (Alan Baxter and Associates), Urban Core (DTZ Pieda Consulting), The Workplace (DTZ Pieda Consulting), Civic Domain (Urban Initiatives) and Neighbourhood (Urban Initiatives).

In order to equip the broad stakeholder group with an understanding of general principles and particular issues for development in Ashford, each workstream group developed a set of principles, issues, drivers and opportunities to reflect particular concerns of the specific Workstreams.

1) The Key Principles

The overarching ‘benchmarks’ to direct the project, and ultimately to guide appropriate development. This includes showing how the aims and objectives of the Sustainable Communities Plan can underpin development in Ashford. These benchmarks also enable the competing agendas outlined in Section 01.2 to be balanced.

2) The Key Issues

The central issues and constraints within Ashford that need to be addressed.

3) The Key Drivers/‘Non negotiables’

The firm priorities that are required to drive change in Ashford.

4) The Key Ideas and Opportunities

The primary ideas and opportunities that should be explored as early wins to set the benchmarks for future growth and change in Ashford.

Movement Networks

Connectivity and Permeability

1) Key Principles

- Mixed-use, more compact development
- Reduce need to travel by car
- A walkable city
- Human scale development
- Active ‘Living’ Streets

2) Key Issues

- Maximising international, national and regional rail networks for Ashford
- Spare capacity exists on many routes
- Localised congestion at Junction 10
- Enhance the local bus network
- Improve the local cycle network
- Create a decent pedestrian environment and movement network
- Integrate the road network with urban drainage design

3) The Key Drivers/‘Non negotiables’

- Fix the centre first, then expand Ashford – ‘mend it before you extend it’
- Change the perception and attitude to movement
- Create a viable and efficient public transport network
- Create a comprehensive and continuous pedestrian and cycling network

4) The Key Ideas and Opportunities

- Improvements to the Station Interchange and the surrounding area
- A new connection over the CTRL railway to relieve the single connection to the town centre
- Maximum intensity and mix of use within a 10 minute walk of the town centre
- Form of new settlement to sustain an economically viable bus service
- Down grading of the Ring Road
- Station Road as the 21st Century High Street
- Elwick Road as the Civic Spine
- Connecting missing links and extending the cycle network
- Comprehensive approach to SUDS

These aims and objectives have been informed by the Ashford Area Transport Study (AATS) and the Ashford Highway and Traffic Study (AHTS).

Environment and Natural Systems

Balance

1) Key Principles

- To create a robust sustainable resource
- Enhance quality of life in Ashford
- Promote local distinctiveness
- Promote biodiversity and habitat richness
- Minimise future risks – climate change, pollution, loss of green space
- Create a major environmental attraction for Ashford

2) Key Issues

- To promote net gain in biodiversity and interconnection of habitats
- The impact of climate change
- To see Ashford in a wider, regional context
- To develop high quality open spaces
- To promote net gain in area and interconnectivity of habitats and biodiversity
- To develop and extend the green corridors

3) The Key Drivers/‘Non negotiables’

- Address winter flooding and summer drought
- Maintain and enhance biodiversity
- Conserve cultural heritage
- Maintain and enhance landscape character

4) The Key Ideas and Opportunities

- Develop the concept of a comprehensive green grid for Ashford, made up of a network of accessible, sustainable and multifunctional spaces
- Incorporation of protected, conserved and archeological assets in the green grid
- Create great town parks
- Develop high quality water features in the urban, central areas
- Encourage the use of existing local resources for buildings to promote a regional identity
- Promote the use of locally sourced timber for building materials and energy generation
- Promote locally produced food and provide space and support for a local farmers market
- Use landscape to create strong rural edges to development
- Improve the quality of streams in Ashford through careful design and management of run-off and sewage treatment in combination with planting

Infrastructure

Efficiency

1) Key Principles - Efficiency

- Use water to develop great urban settings
- Use creative water management methods to address constraints including flooding
- Incorporate sustainable and energy efficient solutions in the design, upgrading and extension of infrastructure

2) Key Issues

- Development affecting flooding must not increase flood risk elsewhere
- Take into account the uncertainties of flood modelling and long term impact of climate change
- Water demand needs to be managed
- Significant investment in waste water infrastructure is required
- Change conventional perception and practice to meet sustainability requirements particularly in waste, water, sewage and energy use

3) The Key Drivers/‘Non negotiables’

- Limited development is possible in the floodplain, provided the capacity of the floodplain is unaltered.
- Create new waterways and wetlands as part of the urban landscape
- New infrastructure needs to meet the demands of the growth in innovative and creative ways
- Water efficiency and water demand management

4) The Key Ideas and Opportunities

- Capture winter water and use water as a positive feature to enhance development
- Careful design of drainage to reduce run-off
- Develop a townside SUDS approach for Ashford
- Design energy infrastructure in new neighbourhoods that is highly energy efficient and has the capacity to incorporate energy generated from renewable sources
- Minimise the demand for new infrastructure by designing into development resource efficient technologies
- Develop long term upgradable and flexible infrastructure to allow the town and surrounding villages to readily adopt improved sustainable services





These aims and objectives recognise that the impact of flooding should be of no detriment to the existing or proposed condition. It also takes into account the uncertainty of flood modelling and the long term impact of climate change

Urban Core Vitality and Intensity

1) Key Principles

- Accept the basic findings of the Ashford's Future Study (Halcrow, 2002)
- Enhance and promote the town centre qualities through good design and prior key projects
- Develop a greater range and number of housing units in the centre
- Promote high quality development around the Station area
- Downgrade the Ring Road
- Improve the street quality of Station Road and Elwick Road
- Develop parking areas around the centre
- Promote the lead projects that are catalysts for change
- Create better public realm
- Create a rounded and well run cultural offer that is sufficiently distinctive to attract local and regional visitors

2) Key Issues

- A step change is required to reposition Ashford and its future
- Early win projects will play an important role
- Develop a 'masterbrand' to promote investment in the core
- Pursue a land assembly programme
- Pursue a funding programme
- Secure strategic public sector investment in key projects
- Promote private sector partnerships
- Lack of cultural offer

3) The Key Drivers/'Non negotiables'

- Diversification and enhancement of the Town Centre
- A high profile public department relocation to Ashford
- A programme to develop and enhance arts and culture
- Promote distinctive town centre housing developments
- Play down the "cheap back office" card
- Anticipated infrastructure improvements are critical
- Major new campus development in or around the centre of Ashford

- Develop and build out the public realm so that Ashford becomes famous for the quality of its public space, gardens, squares, shop fronts and streets.
- A critical mass of cultural projects supported by policies, facilities and funding to attract and support the cultural industries and arts communities

The Workplace Opportunity and Inclusivity

1) Key Principles

- Economic development needs to be tied to the economic vision developed by Ernst & Young (2004) and further evolved by the Ashford's Future Economic sub-group
- Align the vision, strategy and action plan to the urban design framework
- Balance employment growth, housing delivery and workforce growth
- The opportunities need to be expanded across a range of employment sectors
- Promote the use of local labour and business to build out Ashford

2) Key Issues

- The lack of a defined image for Ashford
- The economy generally reflects low productivity and low incomes
- There is a weak skills base and a high out-migration of young people
- Limited capacity on junction 10
- Strong regional competition for investment within the Kent region and along the CTRL

3) The Key Drivers/'Non negotiables'

- Capitalise on CTRL and M20
- Raise skills base
- Gear up the 'quality of life' agenda – provide good quality public services, good quality public spaces, and a range of quality housing

4) The Key Ideas and Opportunities

- Develop a comprehensive programme to enhance the Town Centre
- Seek a range of high profile projects to help forge a new image for Ashford
- Develop a skills improvement programme
- Promote Ashford to entrepreneurs, set up excellent ICT links
- Form enterprise centres and incubation spaces for start up businesses
- Remove constraints on Junction 10
- Use the growth of Ashford to develop local skills and businesses

- Ensure that wherever possible, the growth of Ashford benefits rural areas

Civic Domain

Dignity and Civic Pride

1) Key Principles

- Integrate public resources into both new and existing areas
- Establish a high benchmark for the quality of design of public spaces and resources
- Promote good access to public resources
- Promote the role of the voluntary sector
- Promote the cultural aspect of public spaces
- Use the combined effects of a range of public resources to contribute to forming positive neighbourhoods as a seed for change
- Change the perception of Ashford through improved public spaces and service provision

2) Key Issues

- Quality housing and environment
- Integrating existing development and new development
- Maximising the potential of public investment in appropriate public spaces and resources to reinforce rather than fragment the town
- Create 'joined-up' links between public service providers and the voluntary sector

3) The Key Drivers/'Non negotiables'

- Establish a public space network with a clear public structure for Ashford
- Establish a range of public resource hubs
- Establish a public sector forum for joined up thinking
- Establish a strategy to deliver integrated public resource hubs

4) The Key Ideas and Opportunities

- Establish the primary structure for public investment across Ashford as a 'Capital Web'
- Deliver the Learning and Skills Campus and Discovery Centre as the central component of a new emphasis on learning
- Create a joined up and well managed network of green spaces that focus on two new Great Parks – the Discovery Park and Willesborough Dykes
- Establish a champion to oversee and deliver cultural, social, health and educational infrastructure

Neighbourhood

Opportunity and Inclusivity

1) Key Principles

- Build 31,000 new homes
- Build sustainable communities (economically, socially, environmentally)
- Balanced, cohesive and well-integrated communities
- Deliver places that support human interaction and a range of activities

2) Key Issues

- Provide sufficient choice (housing type and tenure)
- Provide safe and secure environments
- Identify the necessary support services and spaces
- Connect neighbourhoods to each other and the centre
- Reduce the impact of development on the environment, create clear buffers/defined edge
- Produce flexible and adaptable neighbourhoods to take account of emerging demographics, lifestyles and technologies

3) The Key Drivers/'Non negotiables'

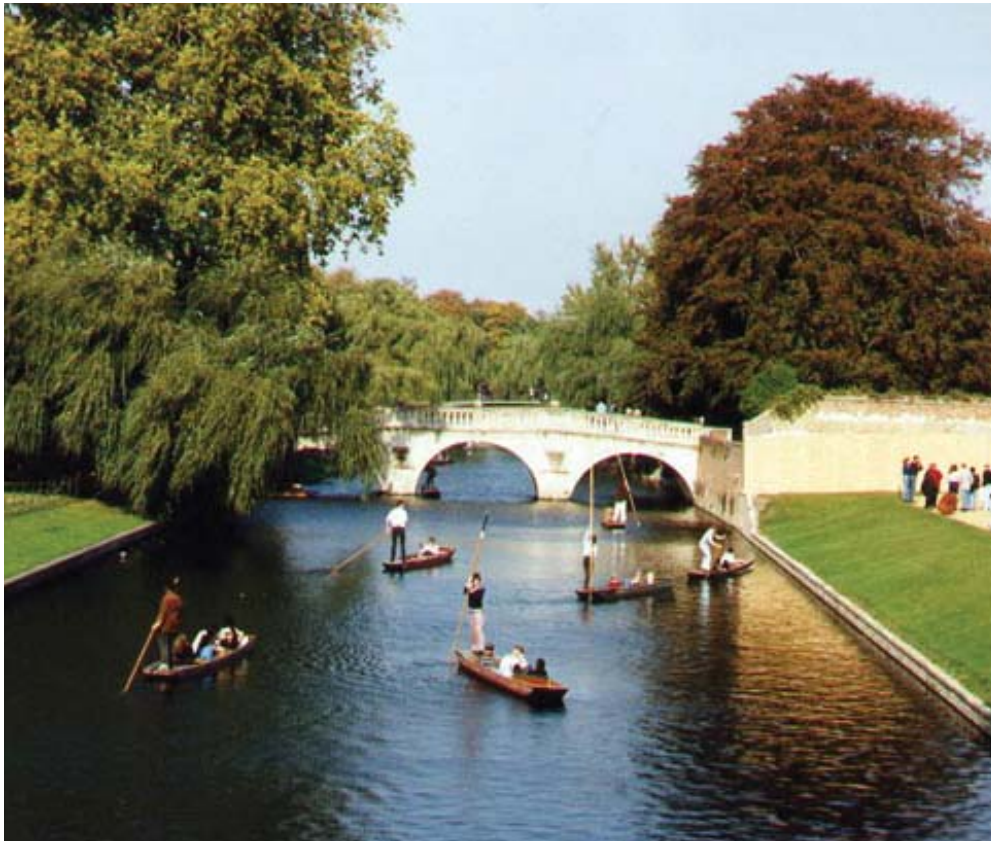
- Walkable neighbourhood environments
- Promote best practice to address environmental impacts. Work with accepted environmental standards and targets
- Address needs of both new and existing communities
- Exploit potential within existing urban areas

4) The Key Ideas and Opportunities

- Compact, mixed-use development
- Relate intensity and mix of development to most accessible locations
- Develop innovative construction methods, architecture, landscape and layouts
- Allow for a range of choice for neighbourhoods, meeting both the range needs of developers and the end-user through different locations, blocks and plots
- Promote the use of local, renewable and non-polluting materials in development to minimise environmental impact, enhance local character, and maximise the economic benefits of growth
- Adopt Eco-Homes 'Very Good' rising to Eco-Homes 'Excellent' within 5 years
- Design housing and neighbourhoods to facilitate waste reduction, reuse and recycling through design, construction and ongoing maintenance



04.2 DEVELOPING THE VISION



“We wish to encourage a holistic approach to the green space network in order to provide a **modern, functional** and **cohesive** green infrastructure which will enhance the new built environment”

Creating Sustainable Communities: Greening the Gateway (ODPM 2004).

The ‘Town in the Garden’

Arising out of the study is the strategic vision of ‘Ashford: The Town in the Garden’. This builds on the ‘Kent: Garden of England’ identity and firmly establishes the important relationship between town and countryside. It also establishes the distinction between the two, and so avoids the limitations of the garden city, with its inherent low-density urban sprawl.

What do we mean by ‘Town’

By use of the term ‘town’ we mean wholly immersive urbanism, that is a place that is distinctly built environment and seeks to create compact walkable neighbourhoods, districts and quarters - all connected and interrelated in a complex pattern of urban form and function. This means that we establish a clear relationship with the natural environment that is mutually supportive rather than repressive.

Building on the tradition of town-making that celebrates the morphology of Kent’s towns and villages we can contribute to a distinctive place. But we must recognise that the programme of growth will demand new forms of urban development that will add to this history.

Using principles that Abercrombie developed in nearby Aylesham, the town will require a fixed and controlled urban edge, clearly establishing limits for growth and ensuring that the surrounding countryside has a certain future.

What do we mean by ‘Garden’

The ‘garden’ is an essential component of urban living. It is no coincidence that great places have great parks and open spaces. Access to nature is an essential ingredient of urbanity. It is also clear that sustainable urbanism requires a closer working relationship with nature if it has to meet the targets of Smart Growth. This includes sustainable urban drainage, green energy, local food production and alternative forms of transport. In a modern world the countryside has a symbiotic role in dealing with the impacts of growth and change. Without ‘town’ we do not have ‘garden’, and vice versa.

Core Themes

Having established this vision we developed a set of themes for Ashford. The themes encapsulate the core areas that Ashford needs to develop if it is to meet its aspiration of a vibrant and sustainable town. These were presented and adopted at the first Eastwell Manor workshop and are incorporated in the Ashford Town Charter.

Key Themes 'Ashford: The Great Town in the Great Garden'



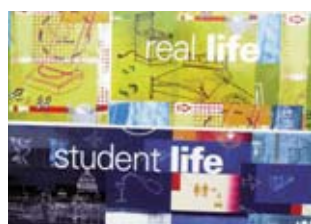
'Connected Ashford'

This builds on the International Station tag and stresses the European City dimension, the excellent transport links, strategic location and potential role as the 'Gateway to Britain' (tourism and conference) – convenience and connectedness.



'Start-up Ashford'

A focus on the small and medium enterprises; ease of starting a business; the fine-grain mixed use approach; the urban marketplace; links to learning, innovation and creativity – upliftment.



'Learning Ashford'

The concept of a learning quarter; educational hub and spokes; integration with all aspects of the above two strands.

'Smart Ashford'

This builds on the concept of "smart growth", low impact living, choice of living; integrated public transport systems, best practice in ecological design, moves to self-sufficiency, etc. - efficiency and integration.



'Walking Ashford'

Exploiting the flatness of the place and the regional walks to focus on the potential for creating excellent walks throughout the town and to the countryside, focussing on routes along the water systems, the great Streets, and walking Streets - promoting permeability, reducing severance, ease of access to public transport, cycling, etc. – ease of movement.



'Beautiful Ashford'

This strengthens the concept of great spaces, great streets, great parks and great neighbourhoods and establishes the benchmark for good design, ambitions and values – character and civic pride.

As regards the 'Garden' concept these are expressed as follows:



'The Water Garden'

This exploits the unique opportunity of water control and management required in Ashford giving rise to the potential for the great wetland park, the lake district and the canal district in the town. Ashford becomes an exemplar for environmental design, flood management, sustainable urban drainage and water treatment.



'The Woodlands Garden'

In concert with the above concept, Ashford builds a new urban forest that links with other forest systems, provides a clear definition of urban edge, interrelationships and linkages. – continuity and enclosure.



'The Country Garden'

The concept of local identity being strengthened in local foodstuffs, wines etc, and interrelationship with the marketplace, farmers market, self-sufficiency.

The Economic Vision

“A strong, self-sustaining and growing town, recognised as a world-class exemplar location combining an environment rich in resources with a technologically enabled, knowledge based learning economy”

“Recognised for the excellence of its physical, cultural, economic and digital connectivity with its surrounding region, the UK, Europe and the wider world.”

“The preferred location in the South East where, given the quality of the built environment and the quality of life, people of all ages aspire to work, study, live, relax and visit, and can fulfil their potential.” (Ernst & Young, 2004)

The Economic sub-group of the Ashford Future’s Board has developed an Action Plan, describing the range of activities and investments that will contribute to the delivery of sustainable communities in Ashford. Partners have sought to ensure these actions compliment and actively promote the formative Greater Ashford Development Framework in seeking to consider the economic implications of infrastructure, employment and phasing proposals. Project development has also been more widely informed by market intelligence outside of the GADF process including the 2004 Locate in Kent sector development study.

Whilst seeking to support economic growth to underpin the Sustainable Communities Plan for Ashford, this action plan is complimentary to, and consistent with, the SE Regional Economic Strategy, the Channel Corridor Partnership Area Investment Framework, Ashford’s Community Plan and the strategies of other partners in Ashford’s Future.

The plan is organised into 4 building blocks, each of which makes a distinct contribution to delivery of the Regional Economic Strategy and local investment plans. These are subdivided into 11 strategic objectives in the Ernst and Young study.

A fully-costed funding plan will be prepared as projects are developed further and partners seek to formalise provisional investment commitments through their respective corporate planning processes.

The Strategic Objectives

The economic vision (Ernst & Young, 2004) outlines 11 strategic objectives for Ashford to achieve sustained economic growth:

1. To have in place strong political, community and business leadership to create an environment conducive to realising Ashford’s vision.
2. To ensure that Ashford’s infrastructure of road, rail and other physical as well as digital infrastructure is exemplary in order to support and drive forward growth.
3. To retain a larger share of Ashford’s 15-34 year old age group to live, work, study and pursue their careers within Ashford, and to attract members of that age group from outside by provision of education, leisure and employment opportunities.
4. To improve significantly the provision, uptake and completion of education, learning and skills programmes within Ashford.
5. To improve the ability of property markets: industrial, commercial, office and residential to support Ashford’s future needs.
6. To revitalise the town centre as a venue for living, retail, leisure, business and related activities.
7. To build on the strong base of small business, attracting more businesses to locate in Ashford, facilitating new firm creation through the provision of enabling infrastructure, and encouraging the development of Ashford’s reputation as the best place to do business.
8. To develop a unique identity and brand that can be used to promote Ashford.
9. To identify and support initiatives to enhance the quality of life for residents and visitors in Ashford.
10. To grow Ashford as a community with active participation in creating the future, enabling all to take advantage of the opportunities offered by growth, ensuring that local transformations benefit all segments of the population, particularly those in greatest need of economic inclusion.
11. To grow Ashford’s economy in a way that considers the views of the existing community and is complementary to those of the surrounding towns and coastal areas, bringing benefits to the sub-region and region more broadly.

1.0 Enabling Leadership

Ensuring strategic direction, effective management and strong communications

There are three thematic objectives within this section of the plan:

1.1 Leadership

Ashford faces radical change: This means making fundamental decisions that will often require speedy responses. Strong leadership with clear strategic direction is required to ensure that issues are addressed head on, decisions taken, and action monitored into delivery and beyond into evaluation. It is therefore important that there is strong political, community and business leadership supported with effective management in order to create an environment conducive to realising Ashford’s Future.

1.2 Identity and Communication

Without a clear and well-defined identity Ashford will not be able to signal to its inhabitants and prospective markets what it is and what it stands for – both economically and socially. Ashford’s identity should be made up of and reflect Ashford’s past, its present and importantly its future aspirations. Identity will define and differentiate Ashford from its surrounding area. It is therefore vital that a unique identity is defined that can be used to promote and secure investment into the town.

1.3 Sub-regional Integration

It is important that Ashford maximises the outcomes and impact from existing economic development initiatives and partnerships to ensure there is not wasteful duplication, nor unnecessary competition, for investors or limited resources. It is vital that Ashford’s economy grows in a way that considers the views of the existing community and is complementary to those of the surrounding towns and coastal areas, bringing benefit to the sub-region and region more broadly.

2.0 Place Making

Delivering high quality design in physical development and effective infrastructure

There are three thematic objectives within this section of the plan:

2.1 Physical and Digital Infrastructure

Job creation and property development (industrial, commercial, office and residential) are dependent on the existence of a supportive infrastructure, the quality of which will differentiate Ashford.

At present there are significant physical infrastructure constraints impacting upon development which must be unblocked to realise Ashford’s economic potential: Ashford is well

positioned to develop as an exemplary regional transport node linking road (M20, M2), rail (CTRL international and domestic) and air (Kent International Airport, London Ashford Airport). There are also digital constraints but Ashford is well positioned to develop as an e-enabled town, with exemplary fibre and wireless technologies incorporated within its developments.

2.2 Property Markets

Ashford needs to offer a range of high quality, sustainable sites, premises and dwellings that meet a range of market requirements in terms of type, availability, flexibility and price in order to be attractive to various market sectors. Removing factors constraining the supply of space, boosting confidence within the market and promoting sustainable solutions are vital ingredients to ensure that the industrial, commercial, office and residential property offer is of the highest quality and supports Ashford's need to attract quality private sector investment.

2.3 Vibrant Town Centre

A broad ranging approach is needed to revitalise the town centre into a pole of attraction for residents, investors, domestic and international visitors. Revitalising the town centre through improved accessibility, making best use of existing assets and developing the retail offer and evening economy will mean higher rents; improved yields for investment; attraction of prosperous residents and visitors; the retention of young people; and improved local employment. Revitalising the town centre as a venue for living, retail, business and related activities is critical to the success of Ashford as a vibrant community.

3.0 Developing Communities

Building vibrant, skilled and successful communities

There are four thematic objectives within this section of the plan:

3.1 Learning and Skills Development

The level of skills and training needs to be increased to provide Ashford's existing and growing population with the necessary tools to survive in an increasingly competitive and knowledge intensive economy. This will serve as a magnet for retaining Ashford's missing generation of 15-34 year olds, and attracting young people from other parts of the region, the rest of the UK and abroad. Widespread access and take-up of lifelong learning for all the community as part of the knowledge economy concept will be critical to the renewed vibrancy of the town. The overriding objective is to improve significantly the provision, uptake and completion

of education, learning, and skills development programmes within Ashford.

3.2 Youth Retention

Socio-economic analysis of existing residents in Ashford shows there is clearly a need to retain a larger number share of Ashford's 15 – 34 year old age group. The overriding strategic objective is to encourage a higher proportion of Ashford's 15 – 34 year-old age group to live, work, study and pursue their careers within Ashford and to attract members of that age group from outside the area by provision of education, leisure and employment opportunities.

3.3 Quality of Life

Ashford is well connected and has a generous endowment of natural assets and resources that can form the basis of further development of the tourism and leisure industry. This includes open space, attractive countryside, existing infrastructure of hotel and tourist accommodation, cultural attractions, sports and leisure facilities. Development of these assets will also contribute to the creation of the identity that Ashford aspires to, while supporting several other of the elements underpinning the vision.

It is vital that initiatives to enhance the quality of life for residents and visitors are encouraged, maximising opportunities arising from the cultural heritage and physical location of the town.

3.4 Community Engagement and Participation

Many economic development initiatives are currently underway. It is important that Ashford maximises the outcome of existing initiatives and partnership structures to ensure that there is not wasteful duplication or unnecessary competition for clients or resources. Consideration needs to be given to the aspirations of the Local Strategic Partnership (LSP) which is delivering its three year action plan against a vision of "... a safe, healthy and thriving environment that offers an excellent quality of life to all who live, work and visit the area...". Equally important is consideration of the totality of offer beyond Ashford to adjacent areas in the sub-region considered by the Channel Corridor Partnership and the East Kent Partnership.

A critical element of work will be to grow Ashford as a community with active participation in creating the future, enabling all to take advantage of the opportunities offered by growth, ensuring local transformation benefits all segments of the population, particularly those in need of economic inclusion.

4.0 Creating Competitive Business

Making Ashford an exemplary place to start and grow business

There are three thematic objectives within this section of the plan:

In order to prevent Ashford developing as a dormitory town and to provide employment opportunities to meet the envisaged jobs growth target as set out in the Sustainable Communities Plan, inward investment must increase, the business formation rate must increase and existing businesses must update their activities so that they become increasingly competitive.

4.1 Stimulating Business Formation

Ashford needs to build on its existing base of small businesses by facilitating new firm creation through the provision of enabling infrastructure, high quality tailored advice and support networks that enhance the development of Ashford's reputation as the best place to start and develop a business. This enabling should be complemented by measures to actively stimulate and nurture interest in entrepreneurship at all levels of society.

4.2 Development of Indigenous Firms

To be considered as the best place to do business Ashford must provide an exemplary business support infrastructure in order to support the growth and development amongst indigenous firms. Building on the strengths of existing businesses, encouraging them to grow, facilitating additional clustering, and enhanced aftercare treatment are all vital elements. A vibrant and active business community is a powerful magnetic force. Continuous workforce up-skilling programmes are necessary to ensure that Ashford leads, not just responds, to changing technology and work place processes.

4.3 Inward Investment

Ashford must attract a greater share of inward investment by promoting and positioning Ashford's 'offer', taking advantage of opportunities in key growth sectors. The availability of high quality and well-designed commercial space, with effective linkages to transport infrastructure will support achievements of this objective. Developing and sustaining a workforce skills base that meets the technology and workplace process needs of potential inward investing businesses must be part of the Ashford "Offer".

04.3 DESIGN APPROACH

The design approach that the Team brings to the project is essential to both meeting the aspirations of the Brief and applying the Vision. In order to meet the challenge of the Sustainable Communities Plan we will need to make Ashford an exemplar in urban design. This is the approach we have adopted to making the 'Town in the Garden'.



Movement is the primary generator of Urban Form

Generative urbanism

The overall design approach focuses on the interaction of land use and movement. Post war planning (eg. New Towns, American New Urbanism) has promoted a suburban pattern of development that attempted to divorce development from interconnecting routes in order to mitigate the impacts of traffic. In many ways, Ashford typifies this approach with estate-based housing accessed off single connections from distributor roads. This approach however overlooked the activity-generating effect of movement. Learning from the way which towns and cities evolved over history, the foundation of any settlement was the crossroads – the point of maximum interaction and activity around which town grew up.

The approach exploits the potential of movement and create new 'main streets' for Ashford as the focus for local communities, creating a new sense of place and integrating development form, land uses and public transport accessibility into a more sustainable pattern of development.

Generative urbanism is proposed as our approach to a growth and change model for sustainable development. It is rooted in the belief that public transport accessibility in combination with walkability are the primary generators of urban form and, by definition, urban activity. The principle of linking density of development in existing areas to public transport accessibility, often by the use of Public Transport Accessibility Levels (PTALs), is well established.

Generative urbanism is an 'upside down' way of thinking of this but links this to patterns of urban morphology. This model asks the question about the type of urbanism that is needed to support new investment in public transport, whether this involves opening a station on an existing rail line, building a rapid transit system, establishing a quality bus corridor – or just improving the level of service along these routes. Each action, depending on the levels of accessibility, predetermines the need for certain levels of density and mixes of uses within easy walking of interchanges or stops.

In theory, a definitive growth/change model can be developed to demonstrate this in three-dimensional form, even showing the range of uses according to locational criteria, although this might seem too mechanistic. Good common sense and an iterative design process can easily be applied to achieving a successful outcome.

This approach can be used for urban extensions of a reasonable scale, to regenerate existing areas through a programme of intensification, or to plan new settlements. It also can be applied to a range of settlement types; their parts and their public transport conditions whether they are existing or planned.

Each action also recognises that in well-integrated urban environments the urban dweller makes countless decisions about choice of travel. These are often influenced by such factors as the offer of shopping and leisure en route; quality of the walk; the desire for social interaction; feeling of safety – even the sense of well being. All of these might influence the direction, duration and continuity of the journey. In other words, the urban dweller might chose to walk longer to catch a bus that best serves his needs, or take a longer route because it is more pleasant.

This means that we cannot adopt simplistic approaches to movement as propagated by the New Urbanist movement. Single responses like putting a 400-metre walkband around a centre does not guarantee sustainability, any more than it sustains a public transport system. In the same way the blanket application of density does not lead directly to sustainable communities. Good urbanism is sophisticated and requires a more complex approach to building its urban structure and fabric. This recognises that a cascading zonal approach that classifies the high accessibility core, the intermediate zone and the periphery of the settlement up to the urban edge as three distinct urban conditions each requiring their own morphological approach – each requiring their own response to density, urban mix and physical context.

Good urbanism is good environmentalism

Environmental Quality will determine economic vitality of the town and the health and well-being of its citizens. Many people see this as being in the quality of the setting and spaces in the town. This quality is realised through good design and good future management.

Too often urban spaces are under managed, and consequently lower the quality of the experience or worse, add to a sense of fear. We are interested in a variety of data emerging from this country such as OC and Tiesdell's report on safer city centres in the UK, work by English Nature, and ideas promoted by the National Crime Prevention Institute in the USA in their report "Crime prevention through environmental design".

If such spaces fulfil more than one role they generate a greater feeling of value for more people. This issue has been dealt with in a number of recent studies including English Nature's report on Multifunctional green networks in and around towns and cities, and Rohde and Kendle's report on 'Human well-being, natural landscapes and wildlife in urban areas - a review'. The Urban Green Taskforce and Urban Parks Forum, along with the Landscape Foundation and CABE Space are all tackling aspects of the quality of urban green spaces, whilst alternative space standards such as the ANGSt model promoted by English Nature. Reference needs to be made to these studies and other studies in the preparation of a strategy for a public open space network and hierarchy of spaces for Ashford.

Ashford aims to lead the way by pioneering sustainable natural resource management, conserving natural assets, aiming to be carbon neutral, capitalising on new environmental technologies and applications and in creating a viable and sustainable food and agricultural economy. We feel that the green spaces that help to link the neighbourhoods of the town together and the sensitive urban fringes need to have a multi-functional environmental role, not only to be efficient in dealing with currently targeted uses and aims such as conservation and mitigation of impacts, but to provide a degree of flexibility for possible future roles not yet envisaged. Some of these issues were raised in the pioneering PSA reports on 'Energy Saving through Landscape Design' and studies of the Urban fringe. This holistic approach to urban planning can be called 'ecourbanism'.

The town recognises the need to seek social cohesion and a high quality of life for all its citizens through educational, vocational, cultural and leisure pursuits, and these aims are central to the Urban White Paper and the aim of the ODPM. These are valid aims but a variety of approaches are required to ensure that the spaces between buildings are 'places' in their own right and provide legibility within the context of the town. In this regard we may look to the example of Jan Gehl in Denmark who investigated the 'Life between buildings'. Too often 'green corridors' can be seen as divisive elements, a no-mans land. In order to work, they need to achieve a sense of ownership and regular use by the local population. This can be achieved through high quality design and community participation in the planning stage and in the future management of these areas – not just maintenance, but also planning of a regular programme of activities to encourage greater use and appreciation of the resource.

A variety of action and interest groups can be involved ranging from local wildlife, anglers, rambling, parent teacher associations, sports clubs etc. Above all, especially in the current climate, people need to feel these areas are safe to use. Populating and overlooking key areas helps in this. Understanding that the green areas are also part of the natural processes in the town dealing with surface water attenuation, for example, also helps.

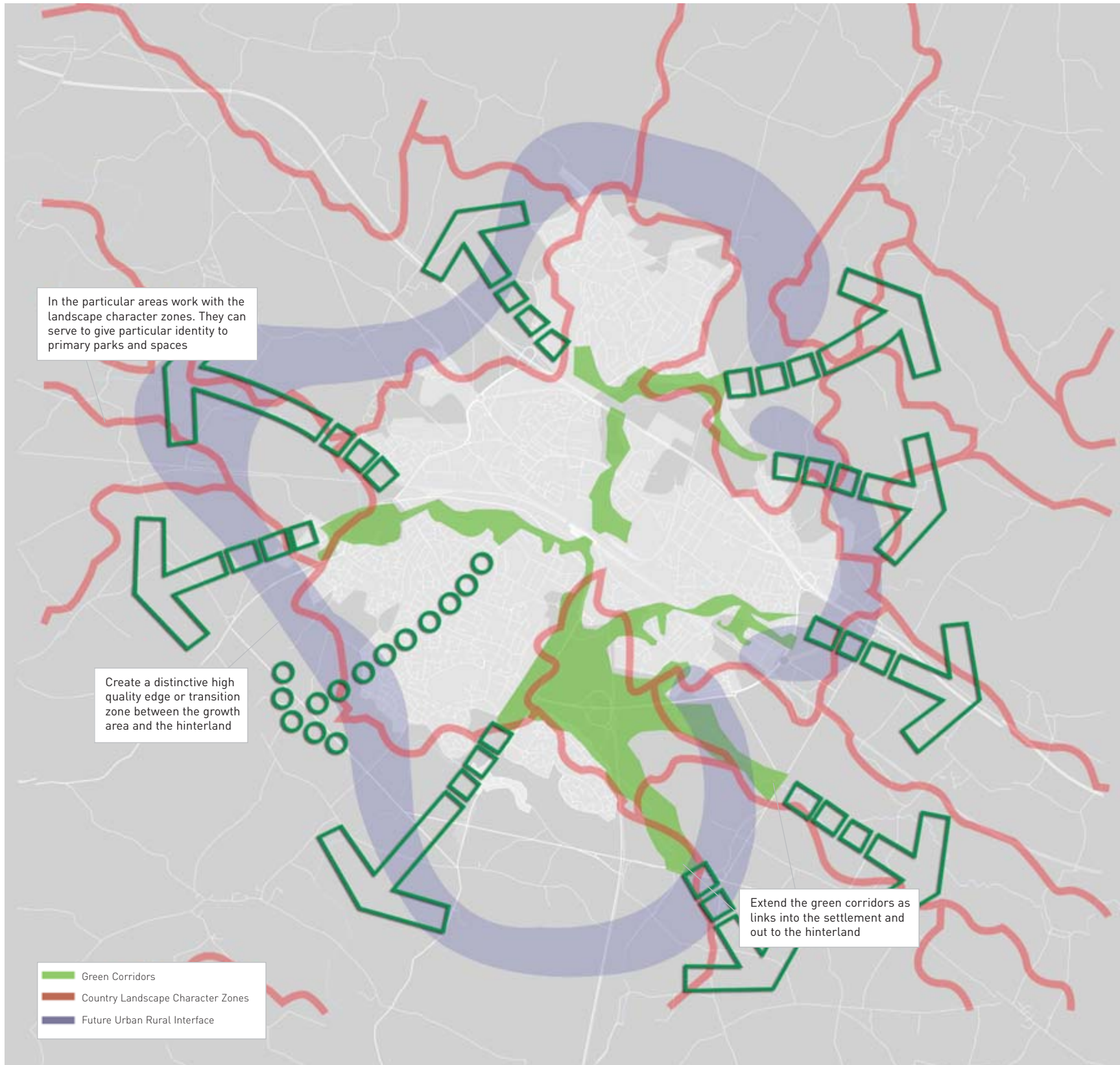
Part of the transport objectives in Ashford includes an aim to encourage people to live and work locally, to avoid urban sprawl and to encourage a denser urban form. Although Ashford already has major car routes and zoning that tends to encourage car use, the planning and design of the green space network can act as a 'green glue' to encourage safe walking and cycling and access to public transport.

Regional Planning Guidance for the South East (RPG 9) has already noted the need to achieve growth in a more energy efficient way that also makes a more sustainable use of natural resources, particularly of water whilst minimising the risk of flooding, and not increasing pollution of air, land or water. The design and layout of future neighbourhoods, allied closely to the strategic arrangements of the green infrastructure can help to achieve these aims.

There are five main rivers flowing through Ashford, all with a history of flooding. The increase in roofs, roads and other impermeable surfaces can increase the risk of flooding unless dealt with in a holistic manner. The Environment Agency LEAP reports for the local catchment areas and the UKCIP report, 'Rising to the Challenge - Impacts of climate change on the South East in the 21st century' note the changing pattern of rainfall here, with wetter winters and drier summers linked to greater incidence of violent storms. The Sustainable Urban Drainage (SUDs) best practice manual produced by the DTI and CIRIA only addresses some of the methods that can be used to attenuate the water problem.

We need to build into the development plan a commitment to additional means which may include planting of alternative energy crops such as willow coppice and hedges in flood plains upstream from Ashford to take the energy out of flows and to hold the water in place for longer (there is already a considerable body of data about this); extensive use of green roofs and garden water storage (not covered in SUDs literature, but important in Germany to tackle this issue) to attenuate flows and to reduce summer water consumption during droughts; use of a network of bioswales and temporary water storage features in the landscape; and increased use of phyto-remediation techniques to clean grey water and surface water run off. All of these issues impact on the landscape and can be used to create new urban and rural landscapes that have a strong sense of place and worth.

This design approach has informed the development of the Strategic Growth Model and the further iterative work on the Strategic Options and Working Masterplan. It has proved robust in balancing the competing agendas for growth and change and has provided a valuable means of communicating with the wider stakeholder group and agencies.



Urban Fringe Treatment changes to match surrounding landscape character

04.4 ENVIRONMENT

The key landscape design issues are complex and cross cutting. The ethos of the environmental design is to create biodiverse multi-functional landscapes as part of a sustainable urban vision. It is important to grasp the big picture – this can be summarised in the points developed below:

- Climate Change
- Changes to radiation and cloud cover
- Changes to wind speed & storm hazard
- Natural and cultural heritage
- Local Distinctiveness
- Green Matrix
- Legibility
- Distribution, use & diversity of greenspace
- Green Corridors
- Green Edges
- Primary Green Spaces
- Quality, protection & resource management
- Land Banking
- Rural Urban Fringe
- Integration and enclosure
- Distinctiveness, character and environment
- Sustainable Urban Drainage
- Biodiversity

Climate Change

The quality of the environment will ultimately be affected by climate and the design responses and protection measures taken to address this.

The implications of climate change have been considered in detail in the Integrated Water Management Study, undertaken by Black & Veatch. This work has led to revisions of the Section 105 maps for the defended and undefended flood plain extents and to an additional assessment of the long term impact of climate change on the 100 year flood plain within Ashford. The development foot prints of the Masterplan, as well as more detailed proposals, have taken this work into account.

Preparing for climate change must be an integral part of any new urban design and must influence the objectives and detail of the design codes to create a balanced environment capable of coping with change. It is not just about flooding and drainage but also about dealing with other impacts.

These include:

- The incidence of storms and how development orientation combined with green infrastructure, plus altered building codes addresses this risk.
- The need to allow sufficient space for water and water related issues in the spatial planning such as Sustainable Urban Drainage Systems (SUDs), alternative local level phyto-water treatment, and a broader level of flood mitigation interventions.
- The impact of longer, hotter summers on human comfort, health, water supply and use, and soil moisture. This has resonances for construction in relation to insurance, building codes in relation to comfort and reducing energy requirements, vegetation in relation to summer cooling, human and ecosystem health, water and air quality.
- The effects of sea level rise on competing towns and cities, which will affect transportation & infrastructure, economics and demand for housing.

Changes to Solar Radiation and Cloud Cover

In looking at Greater Ashford we must not only consider the local microclimate but the wider regional and global influences. The South East of England will experience the greatest rises in temperature, and cold winters will become more rare. By the 2080s, the high emissions scenario prepared by the UK Climate Impacts programme (UK CIP) may mean that the South East is an average of 5°C warmer than at present. A hot summer such as experienced in 1995 or 2003 may occur one in five years by the 2050s and three in five years by the 2080s under the medium-high emissions scenario. Even at the low emissions scenario, two summers in every 3 may be as hot as 1995. With this temperature rise, summer precipitation may decrease by 50% or more by the 2080s, whilst winter precipitation may increase by 30%. Of great significance to the vegetation of the area, in this same period soil moisture has been predicted decrease by 40% for the high emissions scenario.

The increase in solar radiation is considered to lead to a reduction in cloud cover of between 10-20% by the 2080s in this area. Relative humidity may also decrease through the year for all scenarios with perhaps a 20% reduction in fog during the winter for the medium high scenario by the 2080s.

These factors may also have an effect on the incidence of skin cancers. They point to the need for shade trees in streets and parks as seen in southern Europe. There are also consequences for building design: Planting on building walls and roofs can help to reduce solar gain as vegetation has a much higher albedo, or reflective capacity, than masonry as well as providing a cooling effect through evapo-transpiration.

Changes to Wind Speeds and Storm Hazard

High winds can be very damaging and contribute to £1billion in building insurance claims every year. Estimating future wind speeds is difficult. Studies of recent storm events in northern Europe appear to show an increase in severe autumn/winter winds. Perhaps more alarming is the apparent change in the tracking of winter storms from the Atlantic.

The Benfield Hazard Research Centre has illustrated that mean winter tracking of storms is increasingly affecting the United Kingdom and northern Europe. Research by Dronia published as "Zum vermehrten auftreten extremer tiefdruckgebiete über dem nord-atlantik" in Die Witterung in Ubersee (1991), showed that normal winter storms tended to split before reaching the British Isles due to pressure systems, tracking to the north of Scotland and south to Biscay and northern Spain. Warmer winters are closing this divergence with increased storms tracking through the English Channel, Southern England and northern Europe. This has been borne out by storm events over the past 15 years.

The development in the south of Ashford would be prone to these south-westerly storms as the land to the south west is generally very flat and open – it was until quite recently the sea. Shelterbelt planting is already a feature of the farmed landscape ranging from high hedges to planting of alders or poplar belts.

Belts of trees between the housing will help to take the energy out of the wind and to provide protection to the development from storms. In summer time they will help in cooling urban areas. Outwardly of aesthetic value these tree belts could also combine with a network of Sustainable Urban Drainage swales and wet woodlands, and in so doing enhance the biodiversity of the area.

Natural & Cultural Heritage

Due to its proximity to continental Europe, east Kent has seen many waves of immigration and invasion that have enriched its cultural heritage and affected its natural heritage. Kent is one of the most wooded counties in England, formerly part of the vast Wealden Forest the current landscape still bear strong links to the Saxon occupation and clearance, hence the rampant white horse as county emblem – also an ancient Saxon emblem.

The Romans made their first footfall in this area, and left Roman roads and other remnants of their occupation. Due to the nature of the ground little evidence is apparent visually, and much is still to be discovered. Roman and Bronze Age sites have already been excavated within the boundaries of the proposed extended town, and future finds would need to be protected and incorporated into a green matrix.

The river valley and woodland habitats are enhanced in richness by the diverse underlying geology – chalk, sandstone and clays which give a distinctive grain to the wider landscape.

Local Distinctiveness

A sense of place, or local distinctiveness, is important not only for marketing the town as a place to live and work, but also to ground new social networks. A clear identity to 'place' is more than the style of architecture, and in Ashford, the varied geology has given rise to a number of distinct areas within the development area. This needs to be recognised and reinforced. The Genius Loci is the special sense of place.

The Green Matrix

The Green Structure is perhaps more aptly termed the green infrastructure, or green matrix. It is more than green zones between built elements and infrastructure.

Whilst the green matrix needs to deliver a series of functions or services, overall it is helping to set the tone and character for the development framework. Development is being proposed that will ensure key elements of built, archaeological and landscape heritage are set within the green matrix, along with functions such as Sustainable Urban Drainage, non-vehicular urban choreography, and biodiversity. Linkage is important for each of these elements.

Legibility

The topography of much of the town is low and fairly level; where it rises, the topography is gentle and rarely dramatic. Higher land therefore becomes important in terms of orientation, for example Singleton Hill, the rise south of Kingsnorth, the ridge between Sevington and Mersham and Colliers Hill near Cheeseman's Green on the northern end of the Aldington Ridge.

The varied character of the areas around the town are key drivers for accentuating the difference between parts of the town to aid legibility and sense of place.

The green corridors are key devices in linking the various parts of the town by a contiguous open space network.

Distribution, Use and Diversity of Greenspace

The ANGSt model and the NPA 'Six Acre Standard' set out a clear framework for the distribution of formal and informal open greenspace. The green space provision in Ashford needs to meld national guidance and aspirations of ANGSt an NPA with local needs highlighted in PPG17 (2002). We believe that the green spaces should contribute to a multi-functional, biodiverse, green infrastructure that in turn reflects local landscape 'signatures' identified in the Ashford LCA. The British Medical Journal pointed out some years ago the benefits of greenspace on health outcomes, and this has been echoed in the recent CABE space report 'The Value of Public Open Space' (2004).

The ANGSt standards have been promoted by English Nature because they improve quality of life and enhance existing natural resources. In particular:

- Research is showing that everyday contact with nature is important for well-being and quality of life.
- Equality demands that everybody should be able to enjoy this contact in safety, and without having to make a special journey to do so.
- Natural greenspace in towns and cities can play an important part in helping to safeguard our national treasure of wildlife and geological features.
- Accessible natural greenspace gives everyone a chance to learn about nature and natural processes, and the opportunity to help to protect it in practical ways.

Green Corridors

Ashford already has a network of green corridors and parks. Their full potential has not yet been realised. The proposed expansion extends the system of corridors and proposes major new green spaces linked to them.

A key observation is that at present residential development tends not to address these key assets, instead turning their backs on them making them feel like back-lands in some instances, and promoting a sense of lack of safety. This way of thinking needs to be reversed for better integration of green spaces with the town so that they can fulfil their role in promoting social cohesion.

Green Edges

Edges and interfaces are all important. These include edges within the town looking onto organised and semi-natural greenspace, and the rural-urban fringe. Because the primary green corridors also serve a key function as part of the river Stour system, particular regard needs to be taken of the natural processes at work, the role of living riverine systems - hydrological and ecological through the town, and how formal urban edges meet softer 'natural' ones.

Primary Green Spaces

Ashford already has a significant green space legacy, but this needs to be co-ordinated and enhanced. The primary green spaces should be multi-functional

Quality, protection and resource management.

The quality of the new, and the protection and enhancement of the existing Ashford environment will be an important part of the design code process to ensure that the natural resources are used wisely and important habitats and landscape features are protected and enhanced. This requires an established method of maintenance and a 20 or 30 year landscape management plan. Subtle issues like the quality of the darkness of the countryside around Ashford should be recognised as many conventional street lights result in light pollution where some light fittings emit as much light to the sky as to the streets and parks they are designed to make safer. Light pollution also has a detrimental effect on wildlife. This is a particular issue that needs to be addressed in the floodlighting of existing and proposed lorry parks and railway marshalling areas. The cumulative effect of inefficient lighting will destroy a particular quality of place around Ashford that bodies like the Movement for Dark Skies are keen to protect.

Soil or fill material is also a valuable resource that must be stripped retained and reused onsite where development is planned in those areas where uncontaminated topsoil or subsoil exist. Topsoil, which is a dynamic living material, can take many centuries to develop and should therefore be respected, while existing fill material should be used creatively on site to avoid unnecessary transportation or disposal costs.

Sites stripped of soil and being prepared for development easily become a source of siltation pollution for rivers, altering their nutrient balance and smothering vegetation. This was a clear result of works to the M20 and the CTRL in recent years. The development of planted 'catch waters' in advance of any development, that are part of the overall strategic Sustainable Urban Drainage and green network must be installed before any site is worked upon. They are low cost solutions that can have significant environmental benefits.

Land Banking

Land banking is needed to allow for the provision of new facilities or infrastructure. This includes green infrastructure, for example an extension to the floodplain capacity in the event that current flood predictions fall short of climate change outcomes, provision for phyto water cleansing instead of traditional sewage treatment, provision of local biomass for power etc. If we look back over the past 30 years and look at the significant changes in thinking about urbanism and environment, we can assume that there will be great changes in the future too and some provision needs to be made to allow flexibility in future planning decisions.

Rural Urban Fringe

Management of the rural urban edge is vital in ensuring that the setting of the town is maintained or enhanced, and that pressure on natural systems is reduced.

This hinterland area not only provides the setting for the town, it also has the potential to provide key services to the green infrastructure in terms of a sustainable approach to waste water cleaning, Sustainable Urban Drainage and attenuation of flooding, protection from violent storms, a source of biofuels for local energy production, an ecological driver for the green matrix and a link with the surrounding countryside.

The rural urban edge will respect the local character of the area, conserving elements such as ancient lanes and hedges, existing or former (pre recent industrialised farming) field boundaries, and buffer zones to existing sensitive sites. Due to geological conditions, there are a rich diversity of landscape characters around the current town boundaries and the wider hinterland into which the town will expand. Macro level design codes will be considered alongside the local character areas to realise local distinctiveness.

Integration and enclosure

The wooded nature of the south, combined with the high hedges and hedges with hedgerow trees are characteristic of the mixed farmlands surrounding the town, but contrast with the open fields of the floodplain which have been subject to enlargement for modern agriculture. The landscape has a higher capacity for development where it can be absorbed visually within a matrix of trees and hedges. These features will be reinforced or renewed as key features in and around the expansion areas in order to better integrate the rural urban fringe.

Connecting places and spaces is as important locally as it is strategically in order to improve the accessibility and amenity value of the landscape as well as its natural process functions and overarching biodiversity. Primary green corridors within the town, allied to primary edges around it, are key drivers that will make a finer grain of green networks linking spaces, places and people work better.

Distinctiveness, character and environment

The strong landscape influences and elements of local distinctiveness around Ashford relate to the Wealden Clay, Greensand and Gault Clay and River deposits on which the town and the expansion areas are located, and the backdrop of the Chalk North Downs. There is a strong Northwest to South East 'grain' to the landscape that reflects the underlying geology and topography. This is overlaid by the 5 'main' rivers comprising the upper Stour system.

There are 7 county landscape character areas impinging on the town and 18 within a 3km hinterland of the existing town limits. At a finer grain, within a 1km hinterland of each expansion zone, there are a total 160 landscape description units that relate to seven broad historic landscape character types.

The Kentish landscape is still heavily influenced by the Saxon period, and contains a rich heritage of elements from antiquity to the modern era. In the last 50 years modern farming techniques involving field enlargement and drainage, plus major national infrastructure of the M20 and CTRL have significantly damaged a swathe of the countryside cutting the county in half and more specifically, CTRL dissecting the town. These are areas requiring restoration and creation of new landscapes.

Kent is one of the most wooded counties in England, and Ashford Borough has 16% of the county's woods covering 11% of the borough's land area. Around Ashford, much of this is just to the south of the town relating to the former Saxon coastline. This is significant as it provides a precedent to create new woodlands around the town as a way of integrating town and county. Many of these woodlands are managed by coppicing, a rotation of cropping timber which then regenerates from the 'stool' of each tree. As such this has positive implications for possible biofuel production as a new *raison d'être* for managing a major resource of biodiversity and aesthetic value for which the traditional markets have largely disappeared.

The sea-shift in landcover from pasture to intensive arable use over the last 50 years has not only degraded areas of the landscape, turning a 'bocage' landscape into a 'prairie', but it has also altered the water holding capacity of the land, exacerbating the 'flashy' nature of the rivers draining a catchment mainly on impermeable clay. Changes in the Common Agricultural policy impact the landscape and how it functions in a wider sense. These changes are important to a town prone to flooding and need to be recognised.

The Low Weald is characterised by a multitude of moats, ponds, and wet woodland, features that can be employed in Sustainable Urban Drainage Systems thereby reinforcing this characteristic.

Sustainable Urban Drainage systems

SUDS must be incorporated into the green matrix and green spaces adjacent to the built development they serve.

In the wider area, catch waters must be incorporated into the green girdle around the town to attenuate flows into the Stour river system, and to clean surface water run off during the construction phase in particular, when the ground is disturbed.

SUDS systems must take account of:

- (a) The underlying geology for choice of generic drainage solution
- (b) The landscape character of the areas to be drained

There are a variety of wetland habitats in and around Ashford that relate to local geology. Many of these are target habitats in the Kent and UK Biodiversity and Habitat Action Plans. They are characteristic landscape features of the area and so should be the precedents for wetland SUDS features.

A variety of SUDS options may be appropriate on different soils / underlying geology, and within a geological area.



Green Systems Strategy

The Landscape and Natural Environment Design Strategy aims to deliver a distinctive, attractive, safe, diverse and sustainable landscape for the Greater Ashford Development Framework. The focus is at the macro scale dealing with strategic issues, but also needs to inform detail, to prescribe flexible site-specific responses that will respond to changing times. It is important to emphasise that environmental issues often cut across professional boundaries and so require new and more integrated approaches to their design. This is exemplified by the idea of a 'Landscape of Layers' which is illustrated in the diagram opposite.

Development sites cannot be regarded in isolation to the whole urban condition. Macro issues such as micro climate, primary and secondary movement or 'choreography' and drainage issues are part of the green spaces and ecological programme for the town and its immediate surroundings. The development sites become homes and destinations and the interaction of people and places help to make the place safer.

Green systems are essential infrastructure

In looking at the whole system and its setting, the GADF study is akin to the discipline of ecology which looks at the life form and its environment. The term Ecocity has been used for an EU funded research project to investigate a framework for sustainable urban development. The project features seven case – study cities in diverse European countries (UK not included) to demonstrate how sustainability objectives might be achieved under different conditions and in a variety of urban situations.

Some of the key projects have a resonance with the UI concept for GADF:

- City of short distances
- City of minimised land consumption
- City of balanced mixed use

We aim to establish a green matrix framework, that encompasses the principles of open space design, energy and resources, biodiversity, conservation, detail, materials and maintenance. In this way sustainable policies are melded with design intention.

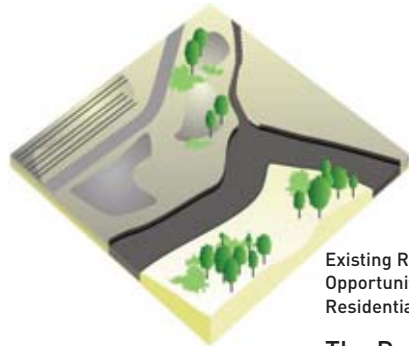
The landscape and overall environment needs to be multi-functional, people orientated to fulfil this objective, responding to the special landscape, cultural and ecological qualities of the town and its hinterland. In particular, it addresses the opportunities and constraints presented by drainage and flooding, as well as concerns of, access, accessibility and connectivity between neighbourhoods and other functions.

Furthermore, it addresses its micro climate, sewage disposal, energy conservation, air quality, community and safety. The Design Codes set down rules for providing a series of attractors in the expanded town that add up to a major sales pitch for Ashford, as well as by reinforcing and creating a sense of place and rejuvenated identity.

The design codes must address fundamental issues of what brings a quality of life and provides spaces for people and nature.

Our strategic objectives are to develop a design framework that:

- Respond to the landscape character, ecology and site context.
- Develop a hierarchy of spaces and places.
- Provide definition and identity to Ashford and its new extensions.
- Manage natural resources while improving accessibility and understanding.
- Develop a holistic approach of Sustainability and Ecurbanism.



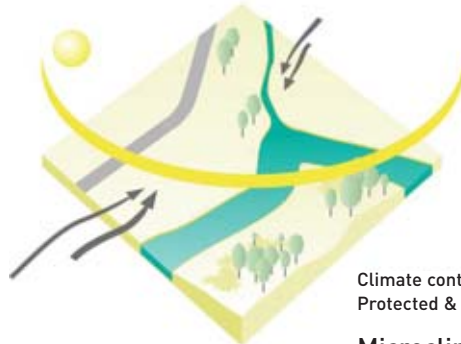
Existing Resources, Opportunities and Constraints, Residential Views and Concerns.

The Development Site



Green spaces in and around the site. Use of green spaces, gardens, recreation, wild.

Green Spaces



Climate context - wind, rain, sun Protected & exposed areas.

Microclimate



Ecological context, local resources, needs and opportunities. Create a network of green corridors

Ecology



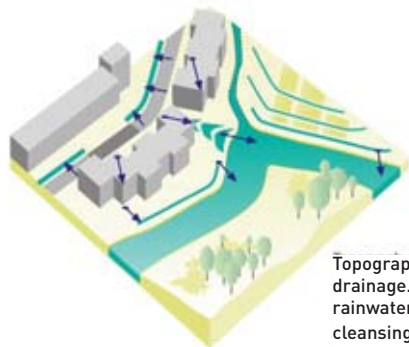
Pedestrian, Cycle and Vehicular movement through and within the site. Maintenance access Local & City wide context.

Site Choreography



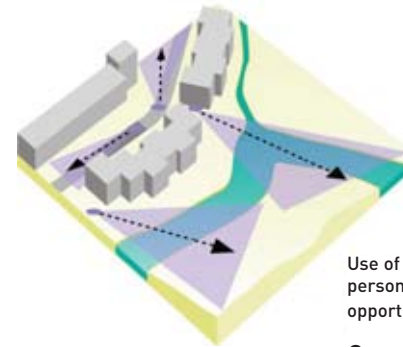
Neighbourhoods as perceived by residents. Local shops, schools, community facilities, work.

Homes & Destinations



Topography and general land drainage. Opportunities for rainwater collections and cleansing Bioswales and ponds.

Drainage



Use of design to increase personal security and reduce opportunities for crime.

Community Safety

Implications for Delivery

Forward Planning

The Green infrastructure needs to be considered and implemented ahead of development. Planting takes time to establish and make its mark on the landscape, so key structural planting should be installed ideally be 6 years ahead of development. This not only provides a setting it should also raise land values.

Reducing Construction Impacts

Another role of the green infrastructure is to deal with surface water run-off during and after construction. A consequence of the CTRL and M20 works was serious siltation in the sensitive river Stour as rain washed disturbed soil from construction sites away. We have recommended that a series of 'catch waters' combined with woodland planting are located between the base of slopes and water courses well in advance of development. This work should be carried out by developers and set out as a condition by Planning.

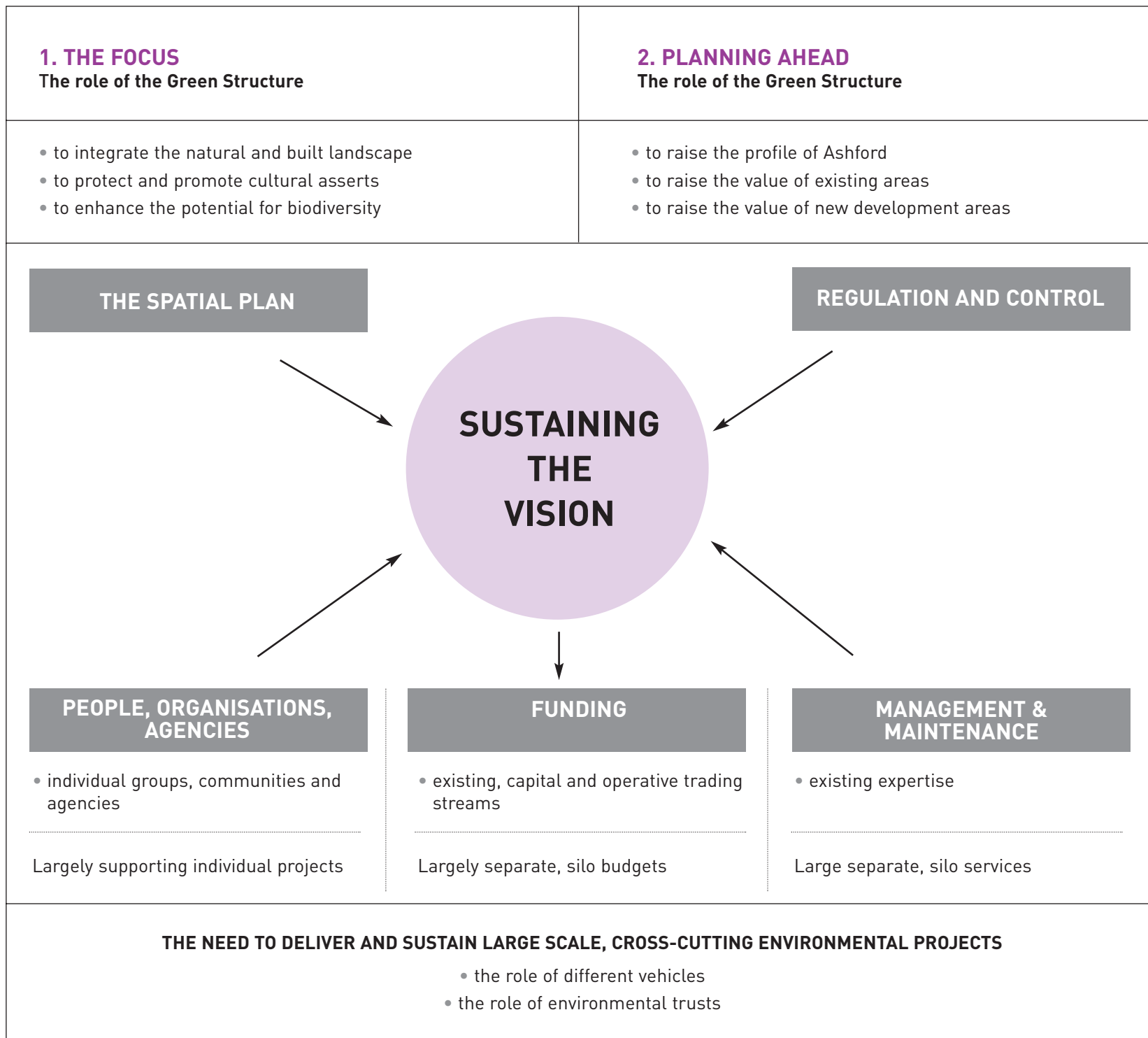
Landscape Regeneration

The existing green corridors, proposed 'green necklace' and primary parks will be an attractor for the town and so it is proposed that they are established early in the development phasing. There are successful precedents for landscape led regeneration across Europe. These parks need to be well funded to achieve high quality design and implementation, it is fundamental that they should also be well funded into the future with regards to maintenance.

Delivering a multi-functional landscape

Throughout we have called for a multi-functional landscape, and this suggests that the funding may reach across boundaries and interest groups. In particular with regards to the 'green services' that this landscape will be delivering as green infrastructure. There are some mechanisms already in place such as the nature conservation forum where a range of interest groups in open spaces meet on a regular basis with members of the council present. This needs to be extended and formalised into a funded body with the charge of co-ordinating the green infrastructure implementation and management.

The details of the funding and planning gain need to take account of the proposed green space development so that adequate funding is made available to improve and maintain the proposed green network in an exemplary manner.



The Environment - Implications for Delivery

04.5 DELIVERING SUSTAINABLE DEVELOPMENT

Introduction

Delivering sustainable development is no longer an option: it is an imperative. The UK Government Sustainable Development Strategy "Securing the future" states that;

"Make the wrong choices now and future generations will live with a changed climate, depleted resources and without the green space and biodiversity that contribute both to our standard of living and our quality of life. Each of us needs to make the right choices to secure a future that is fairer, where we can all live within our environmental limits. That means sustainable development."

The options set out in this document will set the future course of growth in Ashford far beyond the period of this plan. New settlements, neighbourhoods, infrastructure and buildings developed today will be with us for hundreds of years, either as parts of thriving communities or if we get it wrong as a legacy of blight.

Throughout the document the plan seeks to find a balance between:

Urban form, movement and the physical environment; in order to achieve the optimum location, pattern and quality of growth.

and

Community, economy and environment; in order to ensure that the benefits of growth are optimised across all three areas rather than the norm which has often been to deliver economic growth at the expense of environmental quality and social cohesion.

The UK's approach to sustainable development has five guiding principles:

1. Living within environmental limits
2. Ensuring a strong, healthy and just society
3. Achieving a sustainable economy
4. Promoting good governance
5. Using sound science responsibly

It describes climate change as 'the greatest threat'¹ to the world today. The Energy White Paper 2003 sets out the framework for a low carbon economy with the goal of reducing greenhouse gas emissions by 20 per cent below 1990 levels by 2020, and by 60 per cent by 2050.

NATIONAL TARGETS ²	
2050	60% reduction in CO2
2010	10% of electricity generation from renewables
2020	To increase renewable generation to 20%
2010	Reduce domestic energy consumption by 30%
2010	Good quality Combined Heat and Power generation of 10K MW
2018	Eradicate fuel poverty in vulnerable households
REGIONAL TARGETS ³	
2010	5.5% electricity generation capacity from renewables
2016	8% electricity generation capacity from renewables
2026	16% electricity generation capacity from renewables
SUB-REGIONAL TARGETS	
2010	111MW renewable energy target (land based)
2016	154MW renewable energy target (land based)

Table 1: Summary of Key national, regional and sub-regional carbon and energy reduction targets

¹ UK Sustainable Development Strategy: Securing the future, 2005

² DTI, Energy White Paper, 2003.

³ Defra, Governments Strategy for Combined Heat and Power to 2010, 2004

⁴ DTI, The UK Fuel Poverty Strategy, 2001. RPG9 South East, ODPM, 2004 (Amended Chapter 10 (Energy Efficiency and Renewable Energy))

Regional Policy Guidance 9 for the South East

RPG9 covers the period up to 2016 setting out the framework for the longer-term future. Much of the guidance relates to how sustainable communities are to be planned and built. It recognises that the South East Region is particularly sensitive to the effects of climate change and without adaptation, water shortages could be commonplace every summer and flooding in winters could make flood plains more hazardous places to live.

It sets out 12 key Development Principles around issues such as the pattern of development, sustainable housing and access to jobs, services and cultural facilities. Another of these principles is that development is located and designed to enable more sustainable use of the Region's natural resources, in the supply of food, water, energy, materials and timber, in the effective management of waste, the promotion of renewable energy sources and to assist in reducing pollution of air, land and water.

It also sets out specific targets for Energy Efficiency and Renewable Energy (as seen in Table 1) and Waste.

Measuring the scale of the challenge

Sustainable development has been described in some circles as 'living on the planet as if we intended to stay'. The overall ambition for the planned development must be to reduce Ashford's ecological impact on the environment as a whole, even as it grows.

One way of measuring environmental impact is to use Ecological Footprinting (EF), an accounting tool used to analyse the environmental impacts of a process or a person's lifestyle in terms of an area of land required to sustainably produce a particular natural resource or to absorb waste from consumption. The analysis measures the area of biologically productive land that is required to meet the needs of a given product, person or population. It compares this area with the actual available area on Earth and informs us whether we are living within the Earth's regenerative capacity. The notion of an 'eco-footprint' has been coined to define a person or communities total consumption of resources including from energy, food, transport, work and leisure.

SEEDA commissioned a report Taking Stock⁴, to measure the ecological footprint of the South East. It estimated that the SE of England consumes more than 3 times the resource available to its population based on the ecological footprint analysis, or in other words, it suggests that if everyone on earth consumed natural resources and polluted the environment at the level of communities in the South East, it would take the equivalent of three planets to sustain the world's current population. Clearly, this is not a viable or sustainable situation.

Taking Stock identified that the major contributors to the South East's unsustainable levels of resource consumption included shared services, for example running schools, hospitals, roads, airports, lighting and maintaining the public realm and parks, public buildings and offices. In addition, the construction of public and social buildings makes a major contribution and it is therefore incumbent on everyone involved in delivering Ashford's Future to embrace the sustainability agenda.

Whilst the human race will undoubtedly become more efficient in its use of resources, including the ability to extract, process and dispose of materials, this has to be set against the current growth rate of the global population (which the United Nations forecasts will rise from 6 to 9 billion people by 2050) and the increase in the consumption of resources (based on historic trends global GDP is forecast to rise by more than 2% per annum). This is largely being fuelled by the developing world, where countries like China and India, are growing at a prolific rate. Unless there are radical changes to production and consumption patterns it has been calculated (Rocky Mountain Institute and the Wuppertal Institute for the Club of Rome) that societies everywhere will need to become 10 times more efficient in their use of resources by 2050 just to maintain our impact on the biosphere at 1990 levels.

A further consideration is that it has been estimated that global production of oil will peak within the next 5 years and will then steadily decline whilst demand will continue to rise. As a result oil, which is already topping \$50 a barrel, is likely to increase in price substantially. This may encourage a move towards the adoption of non-fossil fuel sources of energy and therefore a requirement to incorporate flexible power generation and supply networks into new and existing development to cope with this transition.

As a result of the work that has been done on understanding the current and future relationship between global consumption patterns and the planets sustainable carrying capacity, the concept of 'One Planet Living' has been coined by BioRegional and WWF to describe new approaches to the design and management of settlements that aim to reduce demand for resources to a sustainable (one planet living) level.

The long term ambition for growth in Ashford must be to deliver developments that achieve One Planet Living standards, whilst recognising that it will take time and radical changes in the capacity of the development industry, consumer demand, economic and fiscal circumstances and technology to achieve this ambition.

⁴ Centre for Urban and Regional Ecology (CURE) and EcoSys Environmental Management and Education, Taking Stock: Managing Our Impact', 2001.

What is One Planet Living?

One Planet Living is a joint response from Bioregional and WWF to the challenge of how people everywhere can enjoy a high quality of life, within the carrying capacity of one planet? It is the realisation that if everyone on the planet were to consume natural resources and pollute the environment as we do currently in the UK, we would need three planets to support us. The One Planet Living programme aims to show how this can be possible by promoting OPL guiding principles and building OPL networks across the world. They define a One Planet Living Community as one that adopts the following principles:

Zero Carbon

Sustainable transport

Local and sustainable food

Natural habitats and wildlife

Equity and fair trade

Zero Waste

Sustainable materials

Sustainable water

Culture and heritage

Health and happiness

One Planet Living, WWF and Bioregional, 2004

Ashford's response to the challenge of delivering sustainable growth

This development framework offers a major opportunity for Ashford to contribute to the UK's sustainable development agenda. By planning and designing communities that enhance the environment and promote a high quality of life for new and existing communities, development can make a positive economic, social and environmental contribution to the whole borough and sub-region.

This framework recognises that Ashford must strive to be sustainable and contribute to regional and national sustainability objectives. Sustainable approaches to development must inform both the way Ashford is regenerated (mend before extend) and grows.

The greatest opportunities to deliver Sustainable Development occur in the way the new urban villages are designed, built and managed because it is in these areas that the whole approach to resource management can be considered afresh from the choice and design of physical and social infrastructure, to the layout of villages and the design of individual homes.

However, there are opportunities to incorporate new sustainable technologies and thinking into the regeneration of the town centre, for example by installing flexible infrastructure into the design of new road developments that support energy

efficient community heating schemes, sustainable urban drainage and water management and by creating cycle and pedestrian friendly streets.

Delivering sustainability is a core objective of the local development framework and the studies and workshops that have informed it. In 'Ashford's Future: The Overarching Report' (2002)⁵ 'sustainability was identified as key driver and shaper of growth:

New development should be designed such that it... reduces energy and water consumption ... respects biodiversity and enhances local landscape ... and design excellence should be a hallmark of urban growth in Ashford, demonstrating the best in modern, high density, European-style housing design.

A workshop to review the vision for growth 2002 identified that there was an overwhelming desire among key stakeholders for Ashford to deliver a rounded and ambitious environmental agenda for growth. Aspirations arising from the workshop included: Lead and pioneer sustainable natural resource management (water, energy, waste, land, biodiversity)

- Capitalise on new environmental technologies and the rural connection for economic gain
- Create a viable sustainable food and agricultural economy
- Aim to be 'carbon neutral'.

Principles for delivering sustainable development

Delivering development in Ashford that meets and goes beyond the government's agenda for sustainable development requires new thinking and approaches to urban design and the growth agenda. The core principles that underpin this work are listed below and are further developed in section 4 of this report by each of the workstreams. These principles are adopted throughout this document in the approaches proposed for urban development, transport, the environment and economy. They are reiterated in the Design Codes and the Town Centre Development Framework. They give rise to the standards for development that have been used in the Strategic Environmental Assessment, the tool used to assess this document (see section 3) and in the table at the end of this section.

The overarching aim of these principles is to ensure that development is resource efficient, non-polluting or damaging to health, enhances the natural environment, promotes the use of local products and services, enhances the well-being of the community and contributes to the development of a distinctive and attractive place to live.

In aspiring to deliver high quality environmental development it is recognised that this must not be at the expense of economic and social improvement, and the principles must enhance rather than impede good quality generative urbanism.

The principles are designed to cover all stages of development from planning to site design, construction, management and maintenance.

The adoption of these principles is supported by a number of the recently published Planning Policy Statements (PPS), including PPS 1: Creating Sustainable Communities.

CORE PRINCIPLES⁶

Creating compact urbanism

Compact urbanism is the most effective way to deliver the sustainable growth of Ashford. This approach has been endorsed by key stakeholders through community consultation because it delivers efficient land use, and a density of use/population enough to support public transport and commercial/ community services.

In practice this has meant:

- Creating a range of development densities for the town centre, neighbourhood centres and villages to correspond to proximity to transport and other facilities;
- Locating development close to existing and proposed transport links including a Smart Link public transport system, new stations and improved bus services;
- Ensuring there is efficient use of plot area and height compatible with locale and amenity;
- Being more efficient with the space given over to cars by for example reconsidering the parking strategy, creating urban streets in place of busy car dominated road corridors and giving priority to pedestrians and cyclists;
- Encouraging the use of public transport, cycling and walking through the location, layout and design of new communities
- Allowing adequate green space within and throughout the development area.
- Minimising the overall land take required for growth and concentrating on development in and around the town center as far as possible.

Accessibility and Ease of Movement

Development layouts should, as far as possible, be accessible to all modes of transport and where appropriate, depending on the situation, limit vehicular access to some areas. All routes are linked into surrounding areas; they create new links where necessary, particularly around the town and ensure ease of movement within developments.

For example:

- Trip generators are located adjacent to public transport wherever possible;
- New and efficient public transport routes have been laid out;
- Vehicular speeds are controlled as appropriate, whilst giving priority to public transport;

- Consideration is given to the provision of cycle facilities/showers in new neighbourhood centres and the town centre;
- Corporate green transport plans will be encouraged for larger employers;
- Efficient vehicular access to all neighbourhood centres and residential developments is provided for in the codes;
- An integrated and connected network of greenspaces, parks and urban squares has been set out;
- All new developments are laid out to be permeable and to achieve a pedestrian friendly block size;
- New linkages are proposed where they are missing.

Enhance social and economic conditions

A guiding principle of this framework is to ensure all growth, including infill development delivers the maximum benefit possible to everyone and particularly the existing population of Ashford and to the poorest and most disadvantaged communities.

One core way in which this is to be achieved is to ensure growth contributes to the development and regeneration of existing communities, the 'mend it before we extend it' principle highlighted in other parts of the framework. These proposals aim to improve the quality of life for residents and visitors to Ashford, by for example:

- Proposing mixed use development, where everyday facilities and workspace is located close to new homes that is easily accessible by foot or public transport;
- Growing jobs at a rate that is commensurate with the growth in population in order to avoid the creation of commuter and dormitory settlements;
- Improving the range and level of education provision in Ashford, particularly further and higher education.
- Proposing a wider range and mix of offices from low cost incubation and hatchery facilities to modern large footplate office accommodation.
- Proposing mixed tenure development to meet the needs of all members of society no matter what their physical, cultural or social circumstances;
- Ensuring that the supply of affordable housing meets demand

Sustainable Development and Design

1.27 High quality design ensures usable, durable and adaptable places and is a key element in achieving sustainable development. Planning policies should promote high quality design for new development areas and individual buildings in terms of functionality and impact, not just for the short term but over the lifetime of the development. Good design is not just about the architecture of individual buildings, but also about the functionality and impact of the development on the overall character, quality and sustainability of an area including resource efficiency (for example energy consumption). There should be no acceptance of ill-conceived designs which do not contribute positively to making places better for people.

Design policies should encourage developments which:

- Are appropriate to their context in respect of scale and compatibility with their surroundings.
- Secure positive improvement to the streetscape or place where they are located.
- Create safe environments where crime and disorder or fear of crime does not undermine quality of life or community cohesion.
- Make efficient and prudent use of natural resources.
- Address the needs of all in society, including people with disability.

Planning Policy Statement 1: Creating Sustainable Communities, ODPM 2004

- Requiring landowners and developers to deliver development that is fully accessible;
- Promoting Lifetime housing standards;
- Promoting healthy lifestyles that encourage walking, cycling, through safe and well designed neighbourhoods and greenspace.
- Delivering high quality development, whereby all major development is scrutinised against a set of design codes and through a process of high quality independent review.

⁶ Core Principles adapt those of the Landscape Design Associates.

- Delivering high quality development that attracts inward investment by businesses and creates confidence among existing residents and businesses to investment in and support the growth of the town
- Promoting the use of local materials and products from food to construction materials.

Environmental Capital

Wherever possible new developments have been located to avoid land with high environmental capital, and are designed to preserve and actively enhance biodiversity and nature conservation. In addition, it is important particularly in a rural location like Ashford that all development meets the 'Dark Skies' standards (see box below) for development and minimise their impact on surrounding areas.

Throughout the document this has meant:

- Carrying out an assessment of the environmental risks associated with proposed development sites and with this in mind a detailed landscape character and ecological assessment has been commissioned;
- Implementing measures to prevent added flooding risks or pollution resulting from the development;
- Putting forward proposals to protect and enhance existing landscape, ecological, and cultural assets and in particular by measurably

Lifetime Homes

The concept of Lifetime Homes originated in 1991 by the Joseph Rowntree Lifetime Homes Group. Lifetime Homes have sixteen design features that ensure that a new house or flat will meet the needs of most households. This does not mean that every family is surrounded by things that they do not need. The accent is on accessibility and design features that make the home flexible enough to meet whatever comes along in life. The core idea beyond Lifetime Homes is to build in flexibility to homes that can adapt as peoples' lives or occupant's change. Examples of a Lifetime Home standard include design of homes for future provision of a stair lift, or that the approach to all entrances should be level or gently sloping.

www.jrf.org.uk

increasing biodiversity in and around Ashford. In particular existing designated habitats (SNCI's, LNR etc) are to be protected from damage by development;

- Encouraging the re-use of Brownfield land especially in and around the town centre;
- Specifying the use of local species in landscape schemes;
- Identifying greenspace and habitat improvement areas and avoiding habitat fragmentation, whilst increasing connectivity;
- Achieving Dark Skies standards for all development;
- Conducting a formal Strategic Environmental Assessment (SEA).

Site context, character and sense of place

Modern development too often lacks identity and a sense of place. As Ashford grows it is essential that it retains and enhances its sense of Ashfordness, both in order to attract business and people to use the town centre and to help build attachment and sense of belonging in the new urban villages. Development proposals are based on a robust appraisal of the site's context, character and local distinctiveness, whilst avoiding the temptation to simply mimic what is nearby. This approach is similarly promoted through the design code work, which accompanies this document.

Prime concerns include:

- Protecting and enhancing elements that contribute to the character and distinctiveness of different areas within Ashford;
- Planning new developments that are responsive to landscape character and views to and from sites;
- Use of topographical features to maximise wind protection and solar access;
- Responding to existing settlement patterns and topography;
- Ensuring the architectural style, massing and patterns of development fit local context;
- The preservation and sympathetic incorporation of built heritage;
- Protecting and enhancing the quality of the environment adjacent to new and infill development sites by ensuring that development embraces rather than turns its back on natural Ashford, particularly the river corridors;
- Promoting localism at all stages of the development process, by specifying for example

where possible the use of local materials in construction, the use of local/indigenous plants in landscape schemes etc;

- Working with landform, landscape character, heritage and cultural assets to inform the masterplan, thereby enriching the sense of place.

Continuity and enclosure, security and a safe environment

Streets and spaces are designed to be overlooked with continuous street frontage and a consistent design approach between the roadway and building line. This theme is developed further in the design codes.

This is achieved by proposing:

- Overlooking and enclosure of main streets and spaces through the use of perimeter blocks (buildings to front of plot);
- Urban structures that create continuity and clear enclosure of streets and spaces;
- Appropriate building heights in relation to street and existing urban form width to create enclosure;
- An improved, more animated and safe public realm – providing for passive surveillance of public areas and the reorganisation of pedestrian and cycle routes to ensure they are overlooked;
- The promotion of active frontages in all developments;
- Entrances that contribute to streets/spaces;
- Clearly demarcated public and private spaces.

Legibility

Ashford has been hidden to visitors who often know it only by its international station or the out of town developments, such as the Designer Outlet. As Ashford has grown it has become disjointed, in part because of the nature of the natural environment and particularly the flood plain and in part because of the impact of new infrastructure, especially road and rail that have cut swathes across the town. This plan works to stitch the town back together, physically and socially and thereby transform the image of the growth area and enhance the sense of place and identity.

Layout designs have therefore focused on:

- The hierarchy of pedestrian and vehicle movement around the town and between suburbs and villages;
- Street cross section and position, scale and form of buildings to support the hierarchy

- The relationships of new development to existing views/vistas/landmarks for orientation;
- The creation of distinct districts/sub-areas/character areas with their own local identity;
- Responding to existing pattern of townscape/landscape;
- Proposals for new landmarks;
- The use of locally distinctive materials and planting.

Variety and diversity

Wherever possible a mix of uses, variety and choice of property types and places has been proposed. In practice, the ability to deliver these aspirations will be partially dependant on market demand, location and other factors, but the development framework makes a major contribution, principally by:

- Stipulating a mix of uses both within the overall development and within individual buildings;
- Requiring a mix of tenures and property types with affordable housing pepper-potted throughout residential developments;
- Retaining good quality existing buildings where they exist, especially in the town centre;
- Advocating diversity in unit sizes and rents compatible with locale, supported by the economic vision and strategy;
- Promoting active ground floor uses.

Adaptable neighbourhoods and buildings

Society is changing fast: the nature of work, climate change and environmental awareness, communications, leisure and retail, demographics, the way social and health services are delivered and almost every other aspect of life is undergoing radical change and no one can predict what society will look like or what its requirements will be in 30 years time.

A core principle therefore is to ensure that all new development no matter how big or small is designed to be flexible so that new standards and technologies can be readily adopted over time with the minimum of disruption and with the objective of minimising whole life costs and use of resources. Successful neighbourhoods, places and buildings change their use several times during their lifetime and such flexibility is vital to long-term sustainability.

The following has therefore been considered:

- Layouts for new developments with a block

shape and size that allows for maximum future adaptability. In practice, this has meant a grid layout, a concept that has been developed further in the accompanying Design Codes;

- Buildings which are capable of alternative uses and future adaptation;
- Simple, uncluttered and useable public spaces;
- The development of buildings suitable for conversion and extension e.g. lifetime homes

Resource use and energy efficiency

Buildings and landscapes should be designed to minimise resource use during construction, operation and maintenance and further to use renewable and sustainably managed resources efficiently. This principle is further developed in the next section on standards where specific targets are identified for different essential resources.

In summary however this has meant:

- Consideration is being given to passive energy efficient design including solar gain, shelter and shade whilst avoiding over-heating and the need for air conditioning. Compact building forms have an important function to play in delivering this principle;
- Designing with natural ventilation and light and incorporating this principle into design briefs;
- Promoting low energy demand buildings and places as a principle in this document, and ensuring this principle is carried through into design briefs and planning documents;
- Promoting the use of renewable energy to power buildings, street lights etc.
- A requirement to justify for inclusion of any energy intensive services;
- The incorporation of sustainable drainage system (SUDS) / grey-water recycling in the design of infrastructure and buildings;
- Promoting minimal length of service runs and extent of road surfaces;
- Re-use of land, existing buildings and infrastructure;
- Promoting through planning guidance waste minimisation and incentives for recycling;
- A focus on whole life performance and costs, whereby revenue and maintenance budgets are considered alongside capital costs when designing new developments.

Dark Skies

Dark Skies is a campaign by the Council for the Protection of Rural England and the British Astronomical Association concerned with the loss of night skies through intrusive and unnecessary light pollution. This outdoor lighting spills into and colours the night sky and reduces the visibility of the stars, and also reduces the feeling of remoteness in rural areas introducing a suburban character deep into the countryside. The Dark Skies campaign presses for:

- Better protection for our remaining unlit landscape and countryside
- Greater attention to the siting and type of lighting used both in the country and in town, in order to reduce wasted light, and
- Removal of unnecessary lighting because of its impact on the night sky.

www.dark-skies.org

Sustainable Design Standards

Principles are all very well, but in order to give them teeth the Local Development Framework has developed a set of standards that will apply to all new development in Ashford.

This approach builds upon the RPG9 policy for delivering the enhanced quality of life following the principles of sustainable development, including the recommendation to adopt the SEEDA Sustainability Checklist. We have taken this recommendation and adapted it in the standards set out below.

These standards will constitute the minimum build quality that will be expected. The standards fall into two categories, the first is the adoption of good urban design practice that is largely covered in other sections of this document and the accompanying design code. The second set of standards (together with the Strategic Environmental Assessment) form the environmental resource management standards that all development will be expected to achieve. As outlined in RPG9 the SEEDA Sustainability Checklist for Developments will be used alongside the design codes and sustainability standards to implement such standards at a development level⁷.

The environmental standards include both the adoption of the Building Research Establishment's Eco-Homes and BREAM standards. The Eco-

Homes standard is designed to cover residential development, whilst the BRE standards cover other types of buildings including public buildings and infrastructure as well as office and industrial development.

Eco-Homes and BRE have been adopted because they are a recognised quality assured scheme. They have the advantage of:

- Allowing most of the core issues to be addressed in one target;
- Providing an independent method of judging development standards on a level playing field.

At the same time it is recognised that the government is introducing a sustainable building code, which will attempt to rationalise and formalise standards that all new development should adopt but these standards above are expected to complement the code.

Specific resource issues

The second part of the approach to management is to adopt a comprehensive set of qualitative and in two cases quantitative standards for 6 key areas of resource use identified in the Ashford Capacity Study and echoed in the Strategic Environmental Assessment (SEA) and in SEEDA's Taking Stock report. These standards have been adopted as an accompaniment the BRE assessment methods because whilst the BRE assessment methods are very useful they allow developers the flexibility to prioritise certain areas at the expense of other important resource issues.

The consequence of this can be that water conservation, which is a fundamental issue for

Ashford does not necessarily have to be considered in order to achieve a 'very good' Eco-Homes rating if other factors a given priority. Because this plan will shape development for a long time to come, it is felt that each of the major resource issues needs to have its own standard.

The consequence of this can be that some resources, for example water, which is a fundamental issue for Ashford, do not necessarily have to be considered in order to achieve a 'very good' EcoHomes rating if other factors a given priority. Because this plan will shape development over the long term, it is felt that each of the major resource issues needs to have its own standard.

Phasing in sustainable standards

Whilst government and regional policy promotes the adoption of sustainable development standards across all communities Ashford recognises that it is far easier and less expensive to design sustainability into new build than to apply sustainable standards to existing neighbourhoods.

There is great potential to establish flexible and sustainable infrastructure in new development, for example district and community heat and power systems, sustainable urban drainage, improved cycle and pedestrian routes, home zones and bus stops, extensive biodiversity measures and waste management and recycling systems.

The intention therefore is to focus on these areas initially and introduce sustainability measures to existing communities more gradually.

For all types of development, standards are designed to become more demanding over time because it is recognised that developers and the

public sector will need time to gear up to meet these objectives. It is anticipated that over the period of this plan European, National and Regional policy will change and standards will become increasingly onerous. This is reflected in the standards set out below.

The standards set out here are for new build only and are therefore more challenging than current government policy because government targets apply to the whole of the Borough, but for reasons given above, new build is expected to deliver radically higher standards that take into account the impact of growth on the delivery of sustainable development and quality of life across of the Borough.

The standards have been sub-divided into 3 categories to cover the 3 types of development; the new urban villages, town centre development and regeneration. The reason for this is that it is easier to achieve these standards in green belt developments where construction costs are relatively low, development is relatively unencumbered, and returns on investment are high. Town centre development will typically take place on Brownfield sites, which can be expensive to reclaim but offer good sale values, whilst regeneration sites are both difficult and expensive to develop and tend to achieve fairly poor returns.

Eco-Homes (BRE)

Eco-Homes is a widely recognised quality assured scheme that independently assesses the environmental performance of a home. The scale of the assessment starts from 'Pass', 'Good', and 'Very Good' to 'Excellent'. It is an easy way to understand the wider environmental concerns of climate change, resource use and impact on wildlife balanced against the need for a high quality of life. It allows developers the flexibility to achieve better environmental performance of their developments along seven categories of:

Energy
Pollution
Transport
Health and well-being

Water
Materials
Ecology and land use

Eco-homes guidance 2005, BRE, 2005

THE 6 KEY AREAS ARE:

Energy

Each person in the UK produces approximately 12 tonnes of CO2 emissions per year, contributing significantly to global warming. The long-term objective is to create carbon-neutral development. The plan is to move towards this gradually by setting increasingly ambitious targets that will be introduced over the life time of this document in order to allow developers time to gear up. The means for achieving these reductions can be summarized as:

- Reducing energy demands from buildings and infrastructure;
- On-site power generation from low-carbon and renewable sources;
- Gradually set up energy supply companies (or work with existing suppliers) to manage sustainable energy supply;
- Consider establishing combined sustainable suppliers of energy, waste and water supply companies, focusing on the new urban villages.

Water

The average person in the UK consumes 150 litres of water a day. The South East is getting increasingly drier in the summer and prone to flooding in winter. In view of the existing environmental constraints on water abstraction, the fact that development already planned for will increase demand, and the likelihood that climate change will cause increased demand and reduced supply, planning for any further increase in water

consumption in Ashford is imprudent. The analysis in the Handbook for Change points to an option that all future development should be 'water neutral' - that is, using a combination of on- site and off- site measures to achieve no net increase in water consumption. This has been shown to be technically possible for individual houses in areas with lower average rainfall than Ashford. This is however more ambitious than some stakeholders feel comfortable with. Increasingly strenuous water use targets are therefore introduced over time.

Measures that need to be considered in order to achieve this ambition include:

- The adoption of Sustainable urban drainage systems in all new development sites and the gradual incorporation of SUDS throughout the development area.
- The incorporation of grey and black water recycling systems into new development areas.
- On site capture and reuse of rainwater in gardens and for other uses
- The adoption of low water demand gardens
- The adoption of green roofs and other on site rainwater capture systems
- The adoption of water metering not only in all new development but throughout Ashford in conjunction with an information and education service to encourage water use reductions
- The adoption of variable water tariffs that give a financial incentive for water efficiency that reduces peakdemand.
- Roads and streets should be designed for

extreme rainfall events that overload drainage systems and cause them to behave as watercourses that may channel water into homes e.g. via drop kerbs.

- Homes at risk of flooding should be designed to be flood tolerant and include emergency access to and from the building and neighbourhood.
- The promotion of low water use white goods
- The adoption of low flush toilets, spray taps and showers and other measures to reduce use in new and existing buildings.

Waste

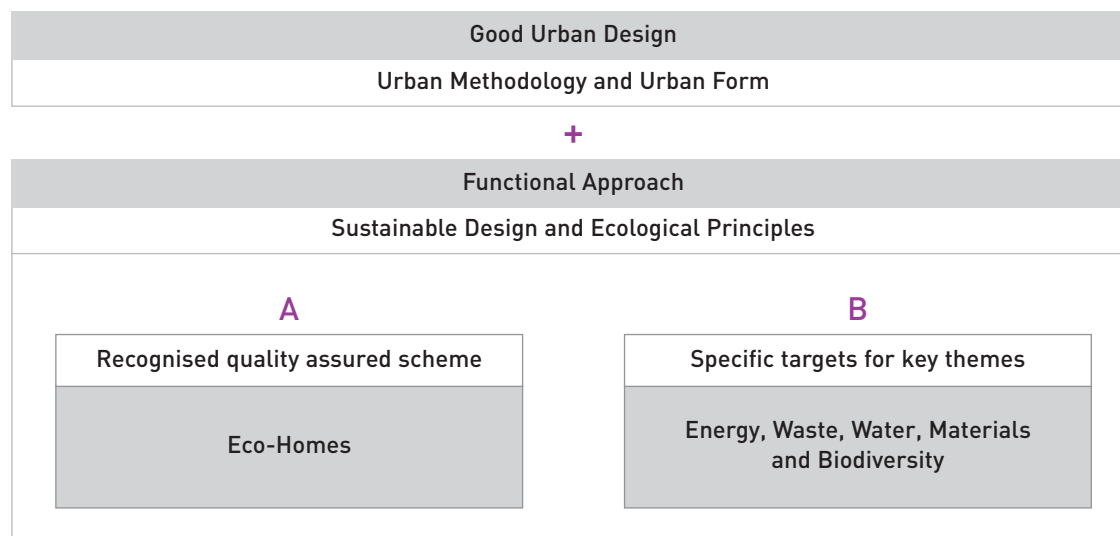
Municipal waste arisings are growing by 3% per annum and are inextricably linked to growth. 75% of waste currently goes to landfill and less than 10% is recycled. Increasing pressure on limited landfill capacity within Kent, limits to the physical possibility and political acceptability of shipping waste outside the area (contrary to the 'proximity principle') and the extreme political contentiousness and environmental impacts of incineration all point firmly to the priority of reducing waste arisings associated with new development. The ideal is 'waste neutral' development that combines on- site methods of reducing, reusing and recovering waste with off-site investments to offset the new housing's waste. In order to achieve this, new approaches need to be adopted, for example:

- Strategies for homes and businesses need to reduce waste production
- Incorporate recycling, composting and energy recovery systems into neighbourhoods
- Reduce construction waste

Materials

The average person in the UK currently uses 10 tonnes of materials per year, whilst the construction industry uses about 420 million tonnes per annum of which only 10% is from recycled sources and less than 1% is reclaimed. The transport of materials in the construction industry alone accounts for 30% of road freight.

The choice of materials used therefore play a key role in delivering sustainable developments. The sustainability of materials covers a number of issues such as their: embodied energy; toxicity and emissions; the sourcing of sustainably managed materials such as Forest Stewardship Certified timber; the durability of materials selected and their whole life costs and life cycle impacts; provenance and in particular favouring



⁷ RPG9 South East Chapter 12 - Ashford Growth Area, 2004
SEEDA Sustainability Checklist for Developments in the South East, July 2003

locally sourced materials in order to support local character and the local economy whilst minimising impacts from transport; and the use of recycled and reclaimed materials.

The Building Research Establishment, constructing excellence, HAPM guides to the component life manual of materials used in the construction industry and others have developed Environmental Profiling to measure the environmental performance of materials throughout a product's life. The BRE profiles provide key indicators of environmental sustainability such as CO2 emissions, ozone depletion, acidification, consumption of minerals and water, and give an overall ecopoint rating for different types of material. It is based on the Life Cycle Assessment (LCA) methodology. Core priorities for procurement therefore include:

- Selecting high performance in-use materials
- Local sourcing
- Encouraging reducing, reclaiming and recycling materials
- Promoting modern methods of construction that reduces amount of material required
- Selecting 'low-toxicity' materials in homes and offices
- Using materials that can readily be recycled at the end of their life
- Selecting durable materials that have a low whole life cost.
- Work actively with Remade in Kent to promote the use of recycled materials

For each of the 4 resource issues listed above the table at the end of this section provides targets for progressively reducing their use in line with the issues covered here. For biodiversity and transport however it is difficult to set specific targets and we have therefore concentrated on describing qualitative measures that need to be taken.

Biodiversity

Biodiversity is a broad term that describes the variety of life on the planet and the habitats and ecosystems that are necessary to support it. The Kent Biodiversity Action Plan (BAP) seeks to restore, enhance and create 28 priority habitats found in Kent; 17 BAP priority habitats are found within the GADF area of Ashford.

High levels of protection need to be given to valued landscapes, particularly those with national and international designations, habitats and natural resources (PPS1). Development within Ashford will also consider regional and locally designated areas and seek to protect these and other valuable habitats.

The proposals are that the development of Ashford should make a positive contribution to green space, habitats and biodiversity in and around Ashford by progressively contributing to the development of the green grid, strategic parks and to the improvement and long-term management of other areas of accessible natural green space in line with Kent BAP targets.

As with the other standards, the enhancement of green space will take time and resources and is a long-term objective. The key aims are to:

- Minimise the impact of the planned development on biodiversity;
- Design developments to support biodiversity in line with the Town and Country Planning Association's, publication Biodiversity by Design
- Ensure that if a priority area is affected that replacement habitat is provided;
- Overall enhance the biodiversity in and around Ashford
- Contribute to the strategic development of green corridors, the green grid and new town parks;
- Use native species wherever appropriate to enrich biodiversity
- Use green and brown roofs where possible;
- To ensure there are sufficient funds and a comprehensive management plan for all new, improved and reclaimed green sites.

Transport

The core principles were described above in some detail. The core issues and relevant standards are:

- That all new development must be readily and safely accessible by continuous and safe cycle and pedestrian route to town centre.
- Extensive cycle facilities to be provided in all new development and in town centre (lock ups for bikes, showers/changing rooms in office buildings/storage in homes etc).
- Town centre housing should provide a maximum of 1 parking space per dwelling (2 room) or 1.5 for three room or more decreasing over time as residents and visitors are increasingly encouraged to visit and travel within Ashford by public transport, cycle or foot.
- Parking charges to increase and parking provision to decrease in town centre to be replaced by edge of town and park and ride facilities over the next 10 years.
- Extensive and improved public transport network including smart link to be established starting by 2010 and all new development along the Smart link corridor to contribute at an early stage to its establishment.
- The network of continuous cycle and walking routes to be joined up, extended and improved over time so that they feel safe are well surfaced and connect new developments with the town centre and rural hinterland.
- The adoption of home zone standards in all new development and the gradual inclusion of these into existing residential areas and around schools.
- The gradual improvement of road environments into vibrant streetscapes that promote walking to and around town from the surrounding villages and suburbs.
- The promotion of public transport and car pooling systems for example by offering bus passes to new residents and by encouraging large developments to introduce car pooling facilities and support.

STANDARDS		Adopted dates for standards by development type		
		Urban Villages	Town Centre	Regeneration
CURRENT BASE STANDARDS	Building Regulations (2006)			
	Currently building regulations will be improving by 25% every 5 years, this is not sufficient to meet the resource savings outlined in the capacity study, and is therefore considered not to be an acceptable option for new development in Ashford.			
	Energy/CO2 50 kg.m ² .pa CO ₂ emissions 125 kWh/m ² .pa Energy Demand Water 100 dwelling litres/person/day Waste 470 kg/person/pa Domestic Waste 20m ³ /100m ² Construction Waste Materials 10% recycled / 30% FSC Timber	2005	2005	2005
STANDARD 1	Eco-Homes 'Very Good'			
	This standard has been adopted by our partners the Housing Corporation, English Partnerships and SEEDA for all new developments. It is also a recommended standard to be achieved in the SEA. Setting this standard increases the sustainability credentials of developments beyond Building Regulations (2006).			
	Energy/CO2 35 kg.m ² .pa CO ₂ emissions 95 kWh/m ² .pa Energy Demand Water 89 dwelling litres/person/day Waste 400 kg/person/pa Domestic Waste 15m ³ /100m ² Construction Waste Materials 15% recycled/60% FSC timber/30€ 'A' Rated	2005	2005	2005
STANDARD 2	Eco-Homes Excellent plus improved core resource utilisation			
	This standard moves beyond best practice being set by our partners and begins to move towards the overall carbon, water and neutral target as set out in the accompanying text. It adopts many of the higher SEA targets within developments in addition to the higher Eco-Homes target of 'excellent'.			
	Energy/CO2 25 kg.m ² .pa CO ₂ emissions 72 kWh/m ² .pa Energy Demand Water 67 dwelling litres/person/day Waste 340 kg/person/pa Domestic Waste 10m ³ /100m ² Construction Waste Materials 20% recycled/75% FSC timber/50% 'A' Rated	2008	2010	2015
STANDARD 3	60% Carbon Dioxide Emissions reduction			
	This standard follows the UK wide aspiration for 60% CO ₂ emissions reduction across the UK by 2050. But in order to meet this target higher standards are set for new developments in order to compensate for the more gradual adoption of higher standards in existing development.			
	Energy/CO2 10 kg.m ² .pa CO ₂ emissions 30 kWh/m ² .pa Energy Demand Water 47 dwelling litres/person/day Waste 260 kg/person/pa Domestic Waste 5m ³ /100m ² Construction Waste Materials 35% recycled/100% FSC timber/75% 'A' Rated	2011	2018	2020
STANDARD 4	Energy, Water and Waste Neutral - CARBON NEUTRAL			
	This standard sets out the targets and implications of carbon neutral developments, whereby development follows one planet living objectives set out in the text. Which is also seen to represent a fair share of the earths resources. Ashford aspires to creating a pilot carbon neutral development in partnership with the private sector as soon as is feasibly possible.			
	Energy/CO2 Carbon Neutral Water Water Neutral Waste Waste Neutral Materials	2015	2020	2030

Table Definitions

FSC – FSC Timber is timber (or wood-based products) provided by Forest Stewardship Council certified forests that are responsibly managed and based on the FSC 10 principles that consider strict environmental, social and economic standards.

'A' Rated materials – The Building Research Establishment (BRE) assess the environmental performance of over 250 construction specifications, each is ranked on a scale of A to C, with A representing the least impact on the environment. Key issues of impact include climate change, ozone depletion, consumption of materials, water and fossil fuels, emissions of pollutants and waste.

