

# KENT ENVIRONMENT STRATEGY

A STRATEGY FOR ENVIRONMENT, HEALTH & ECONOMY - JULY 2015



CONSULTATION DRAFT

# CONTENTS

Foreword (to follow post consultation)	
Vision	3
Introduction	3
Assets and Achievements	4
Our challenges	5
Refreshing the Kent Environment Strategy	8
How will we deliver the Strategy	9
Our Priorities	11
Theme One: Building the foundations for delivery	13
Theme Two: Making best use of resources and minimising negative impacts	19
Theme Three: Toward a sustainable future	27
Our indicators on a page	35

# VISION

The county of Kent is benefitting from a competitive, innovative and resilient economy, with our natural and historic assets enhanced and protected for their unique value and positive impact on our society, economy, health and wellbeing.

# INTRODUCTION

Kent's unique, rich and diverse environment provides significant benefits to the county's economy and the health and wellbeing of its residents. It is one of the most wildlife-rich counties in the UK; a result of its varied geology, long coastline, landscape history, southerly location and proximity to the continent. Its high quality, diverse landscapes, resources and assets are valued by residents, business and visitors alike. Protecting and enhancing these assets supports the visitor economy and attracts inward investment, supporting sustainable growth and developing new markets whilst improving the health and wellbeing of residents (and society as a whole).

Through the previous strategy our partners, businesses and communities have gone a long way to enhance and make the most of Kent's environmental benefits. This strategy seeks to build on these successes and learn from our experiences; evaluating progress, bridging gaps in our knowledge and delivering activities that we know have positive benefits for our environment, our health and our economy. By taking a robust, evidence-based approach we can ensure that we are prioritising and delivering the right activities for the county of Kent.

Delivery of the strategy will support a competitive and resilient economy, with business innovation



in low carbon and environmental services driving economic growth. Our communities and businesses will be resource efficient and prepared for severe weather and its impacts through an increased awareness of environmental risks and opportunities. Our residents will have a high quality of life, saving money in warmer, healthier homes and benefitting from the many services provided through natural and historic assets both within their communities and across the county.

Our businesses, residents and visitors already value Kent's environment and this strategy will ensure that it is enhanced and protected in its own right as well as for the services it provides for our economy, resilience, health and wellbeing.

# ASSETS AND ACHIEVEMENTS

In a recent survey, 70% of residents rated the Kent countryside as very important to them, with almost four in five using the natural environment for leisure or recreational purposes at least once a fortnight

We have 116 sites of national and international importance for nature conservation and the Kent Downs and High Weald AONBs, cover about 32% of the county

Since 2005 Kent is estimated to have reduced its CO<sub>2</sub> emissions by 21%, equivalent to 2,831 kilotons CO<sub>2</sub>, a significant step towards our target of 34% by 2020



The Low Carbon and Environmental Goods and Services (LCEGS) sector indirectly or directly employs more than 55,000 people in the county, around 10% of Kent's working population



Currently 18% of household waste goes to landfill across Kent which has reduced from 75% in 2005

Tourism contributes £2.5bn to the Kent economy and Kent's attractive countryside is a key motivator for people choosing to visit, with 47% of visitors stating it was one of the main reasons why they came



Kent and Medway generate over 640GWh of renewable energy annually (including offshore wind this figure increases to over 4,000GWh). There were 1,370 installations registered in 2013-14 alone

Severe weather events cost the county of Kent an average of around £4m per year. Kent now has nearly 56,000 people registered with Floodline Warnings Direct and volunteer flood warden training has been rolling out across the county

85% of land in Kent is classified as rural; it contains some of the UK's most productive agricultural land, accounting for two-thirds of national tree growing fruit production and about a third of strawberry production

Over the last two years through Warm Homes and Winter Warmth over 1,400 homes have been retrofitted with energy efficiency measures, saving money and delivering warmer homes for residents

Over 14,000 volunteer hours have been spent in Kent County Council's Country Parks and 6,000 volunteer days have supported Countryside Management Partnerships



# OUR CHALLENGES

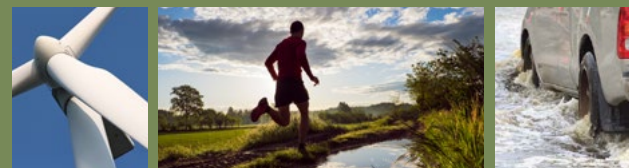
Despite the many successes and opportunities, the county of Kent faces significant challenges now and into the future, which will need to be addressed to deliver our vision. The State of the Environment report (2015) provides an evaluation of these and identifies a number of key issues:

- **Air quality:** It has been estimated that poor air quality causes up to 50,000 deaths per year and probably causes more mortality and morbidity than passive smoking. The Kent and Medway Air Quality Partnership estimated that 1,050 early deaths in the county were caused through air pollution in 2011 (the latest figure available). Kent’s unique position between London and the continent brings significant challenges in relation to air pollution through cross-channel freight and traffic. In addition, easterly winds can bring pollution from the continent and westerly winds bring it from London. There are currently 40 air quality management areas in the county where air pollutants have been known to exceed objectives set by Government.
- **Transport:** The county of Kent is currently facing increased congestion on both road and rail, impacting Kent’s economy, health and environment. Major routes such as the M20 and A2/M2 form important local and strategic links that when congested result in delay on the wider local network. With increasing congestion in the major town centres such as Ashford, Canterbury and Maidstone, growth across the county will be constrained without investment in increasing capacity.

A shift to active travel, such as walking and cycling, and an increase in use of public transport can help alleviate congestion pressures, improve air quality and extend the capacity of our transport infrastructure over a longer timeframe.

## KENT STATE OF THE ENVIRONMENT

A REVIEW OF CURRENT AND POTENTIAL INDICATORS WITHIN THE KENT ENVIRONMENT STRATEGY





- **Water:** Kent is one of the driest regions in England and Wales and our water resources are under continued pressure requiring careful management and planning. In Kent 73% of our public water supply is taken from groundwater with the remainder from rivers or storage reservoirs. These supplies are finite resources and in Kent we are already using most of the capacity in the county and in some places already exceeding it. This water stress will be exacerbated by a growing population and climate change. In addition, the quality of our water affects our health, our economy and our natural environment but is under increasing pressure from pollution, reduced river flows and physical modifications to water bodies.

Despite these pressures, Kent's household water use is above the national average (154 litres per person per day compared with 141 litres nationally).

- **Severe weather, heat and flooding:** Severe weather events impact infrastructure, homes, communities and the delivery of services, to the detriment of Kent partners, residents and businesses. The winter flooding of 2013-14 resulted in direct costs to partners of over £4m with further investment, such as repairs to Highways, increasing this to over £11m. An Association of British Insurers study revealed that 80% of businesses do not recover from a major incident such as a flood. Kent has the highest risk of local flooding of all local authorities in England and surface water flooding is estimated to affect 76,000 properties in Kent, of which approximately 60,000 are residential. Kent is also currently estimated to have approximately 64,000 properties at risk of river and coastal flooding, of which approximately 46,000 are residential.

Our health is also impacted by severe weather. For example daily mortality in South East England increases at temperatures above 27°C and heat-related mortality is projected to increase steeply in the UK in the 21st century. This increase is estimated to be approximately 70% in the 2020s and 260% in the 2050s compared with a baseline of around 2,000 premature deaths in the 2000s.

- **Land-use change:** The county of Kent is expected to accommodate significant housing and economic growth over the 20 year period to 2031. 158,300 additional dwellings are expected with an associated population increase of 293,500 people (an increase of 17%). Our increasing population, housing development, transport links, industry and agricultural intensification all require space and resources, putting pressure on the county's landscapes and changing how we use the land. For example, two thirds of Kent's iconic orchards and hops were lost between 1961 and 2008 and development has increased by 62% over the same period. The way land is used in communities and development also has a significant impact on population health and wellbeing. Evidence shows that people living closest to parks are less likely to be overweight or obese and those with close access to green space live longer.



- **Energy consumption and generation:** Kent is committed to reducing greenhouse gas emissions by 34% by 2020 and 60% by 2030 from a 2005 baseline (our current progress is a 21% reduction since 2005). In the context of planned growth of our population and housing development across Kent, additional low carbon and appropriate renewable energy infrastructure, as well as an increase in uptake of energy efficiency initiatives will be needed to ensure we meet our targets and benefit from the opportunities for innovation in these sectors. Some 80% of the housing stock we will use over the next few decades is already in place and so opportunities to retrofit energy technologies and support a change to low carbon lifestyles will be key to supporting residents in reducing costs and improving energy security.
- **Resourcing activity:** Public sector finances continue to be constrained and across the county, we will need to prioritise activity and work more efficiently with the resources that we have. This means identifying opportunities to deliver across outcomes, working in partnership and accessing external funding to deliver our priorities.



image c/o Bloomsbury's Biddenden

Our challenges, learning and opportunities together underpin the priorities we have identified in the themes of the strategy.

### THEME ONE: Building the Foundations for Delivery

**Outcome:** Our policies, actions and decisions are based on a clear evidence base and resources are in place for delivery.

### THEME TWO: Making best use of existing resources and minimising negative impacts

**Outcome:** All sectors are aware of their impact on the environment and how to minimise it through reducing resource usage and wasting less.

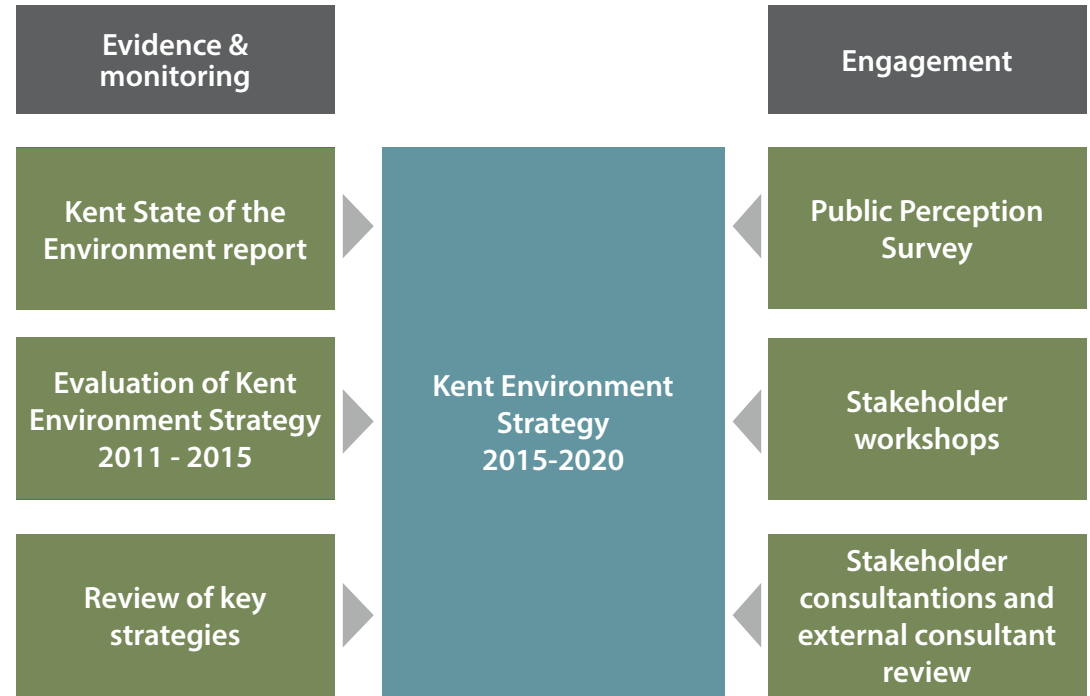
### THEME THREE: Toward a sustainable future

**Outcome:** Kent is actively addressing the risks and opportunities from environmental and climate change, whilst delivering wider economic and health opportunities.

# REFRESHING THE KENT ENVIRONMENT STRATEGY

Although many priorities remain from the previous strategy, we have seen significant change nationally and locally and so a full review has been undertaken. Underpinning this review was the Kent State of the Environment report, which provides an evidence base and baseline in terms of Kent’s environment and related economic, social and health performance indicators.

Central to this evaluation phase has been stakeholder engagement through workshops and consultations, including a public perception survey to ensure that our priorities address the interests and concerns of Kent’s residents. A summary of the review process is shown in Figure 2.



**Figure 2:** The review process of the Kent Environment Strategy



# HOW WE WILL DELIVER THE STRATEGY

Many organisations and partners have been involved in the development of the strategy and will be integral to its delivery:

- Figure 3 shows the partnerships and organisations with a role in steering, championing, developing, delivering and monitoring the Strategy. Coordination is directly through the Kent Environment Strategy Steering Group with strategic direction through a number of partnerships, the Kent and Medway Economic Partnership; the Kent Nature Partnership; and the Joint Health and Wellbeing Board.
- These groups provide specific expertise and delivery. Through this approach we will ensure that broad representation is brought to the delivery of the strategy, championing success and raising awareness across sectors and with our residents.
- An annual review of the implementation plan and associated indicators will take place, informing on-going project development, risks and opportunities.

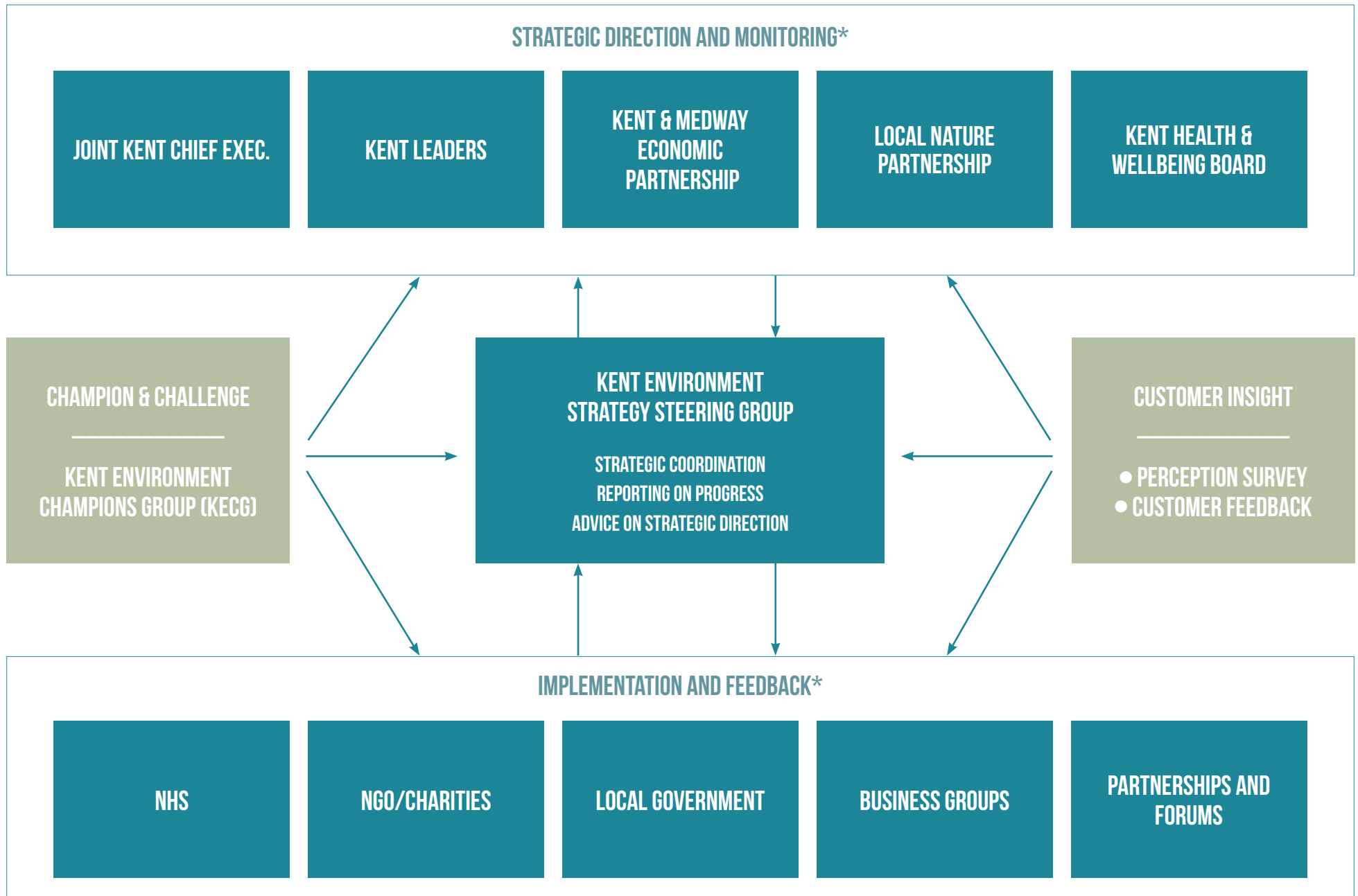
The **Kent Environment Strategy Steering Group** (KESSG) has representation from Districts, statutory and third sector organisations (NHS, Environment Agency, Kent Wildlife Trust and Natural England for example).

The **Kent and Medway Economic Partnership** (KMEP) is an economic partnership which aims to drive forward growth and prosperity throughout the region. It was set up in 2013 and is one of the four federated partnerships which comprise the South East Local Enterprise Partnership. KMEP is governed by a Board and chaired by the private sector, with membership drawn from business, local government, further and higher education.

The **Kent Nature Partnership** was awarded Local Nature Partnership (LNP) status by the government in July 2012 to drive positive change in the local natural environment. The Partnership is led by a Project Board, supported by a Management Working Group and three delivery groups focussed on the priorities of the Partnership; Habitat Improvement, Health & Wellbeing and Rural & Green Economy.

The **Kent Environment Champions' Group** (KECG) provides a championing role for the environment with strategic membership from statutory and third sector organisations, business, Kent Leaders and Chief Executives.

**Figure 3: Relationships of partner groups in the delivery of the Kent Environment Strategy**



\* Representatives sit on the Kent Executive Officers Group

# OUR PRIORITIES

The priorities presented in this revised strategy reflect that whilst some challenges remain the same for the county of Kent, there are new opportunities for innovation, jobs, growth and partnership working. The way partners respond to those opportunities must be through an evidence-based approach, developing credible and pragmatic actions that enable the county to manage current and future risks and opportunities for our environment and the services it provides. A key message from the review has been that partnership co-delivery of priorities is fundamental to the success of the strategy, maximising our resources and increasing capabilities.

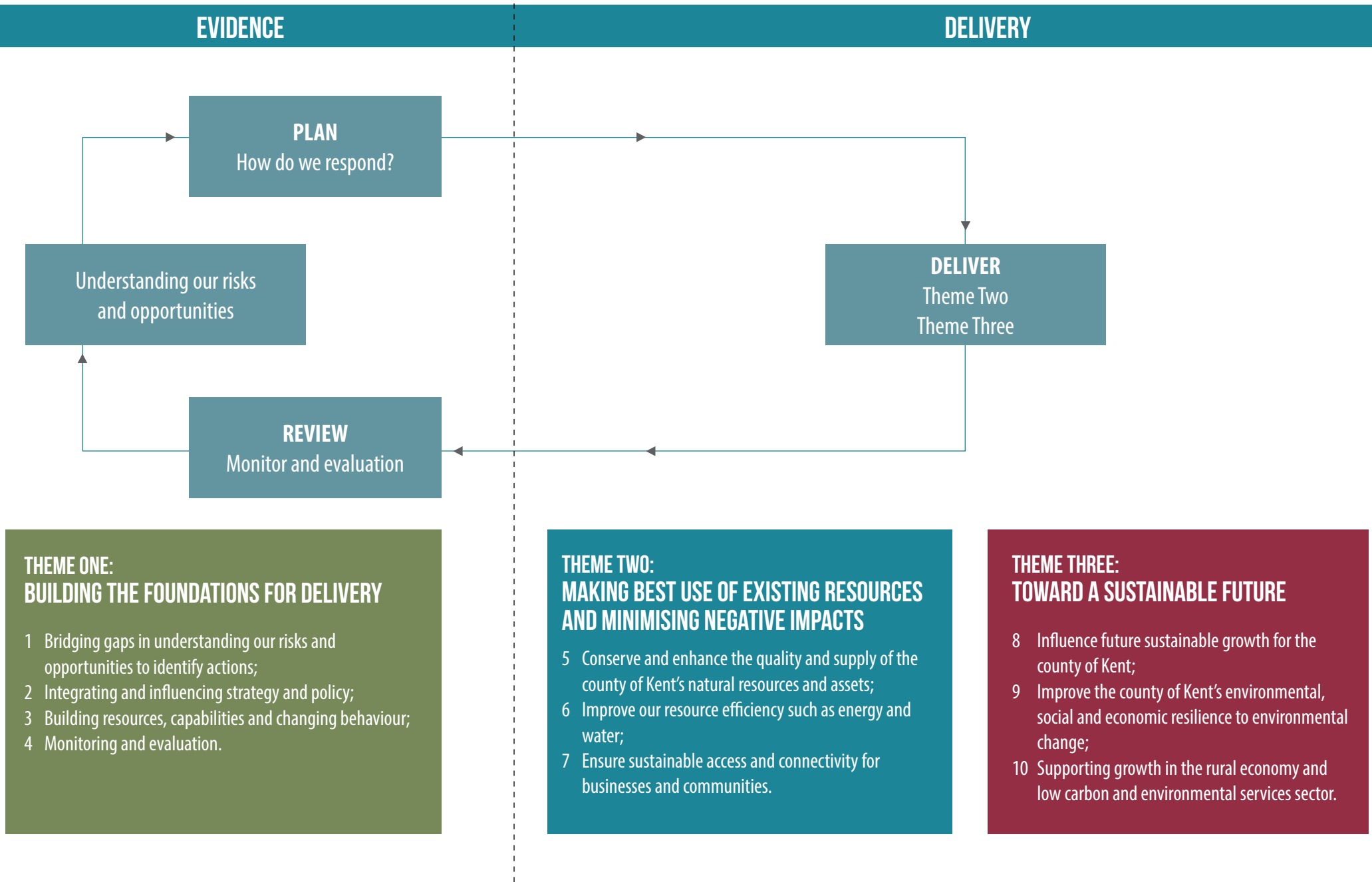
The 2015 draft strategy has adopted an integrated approach where it is informed by, but does not duplicate, priorities and actions from other strategies in key areas of environment, growth, economy and health across partner organisations. The focus of this strategy is to draw together priorities which we need to address in partnership and not in isolation. Underpinning the strategy is the Kent Environment Strategy Implementation Plan, which provides the detailed actions for delivering on our priorities. These actions have been identified through stakeholder engagement, workshops and reviews.

The strategy is split into three themes; the overall structure of the strategy is shown in Figure 4.

**THEME ONE: Building the foundations for delivery** establishes priorities that provide an evidenced understanding of risks and opportunities from environmental change, and the relationship to our communities, health and wellbeing, and economy. It also includes priorities that establish how we can develop actions, as a partnership, to respond to those changes now and into the future.

**THEME TWO: Making best use of existing resources and minimising negative impacts** focuses on minimising the impacts of current activities through reducing resource usage across all sectors.

**THEME THREE: Toward a sustainable future** is about ensuring that the county's communities, businesses, environment and services are resilient to environmental change, managing future risks and acting on opportunities.



**Figure 4:** The overall structure of the 2015 Kent Environment Strategy and the relation of the themes.



# 1

## THEME 1 BUILDING THE FOUNDATIONS FOR DELIVERY

**AIM:** Decision makers will have an evidence-based understanding of our risks and opportunities and are incorporating these into appropriate strategies, plans and actions. The value of our environment to our economy, health and wellbeing is widely communicated and partners are building resources and capabilities to support action on the ground.





**OUTCOME:** Our policies, actions and decisions are based on a clear evidence base and resources are in place for delivery.

**RATIONALE:** Theme One addresses our challenges and opportunities through building the foundations for delivery of activities. Priorities in this theme seek to strengthen our understanding of how we can support sustainable, good growth and address the changes we anticipate over the coming decades. The priorities look to maintain and develop partnerships, identifying opportunities for the co-delivery of outcomes and influencing strategy and policy to support and drive delivery.

To ensure that our priorities and actions are focussed and pragmatic, we need to ensure that we take an evidence-based approach. Through delivery of the Kent Environment Strategy 2011-2015, we have taken this forward through studies and assessments in a number of priority areas, such as water scarcity, flood risk, biodiversity and economic opportunities in the Low Carbon and Environmental Goods and Services sector (LCEGS). However, there remain gaps in our knowledge where we need to do more, such as valuing our natural assets, understanding our energy and water resources and identifying the financial and social implications of severe weather and climate change. These provide the focus for **priority 1: *Bridging gaps in understanding our risks and opportunities to identify actions.***

Kent's natural environment is our primary infrastructure. The ability for it to perform well and be of high quality is important in helping to improve water quality, reduce air pollution and protect against severe weather and flooding. The way in which Kent's natural and historic assets feature across the landscape creates an attractive, characterful identity that draws in residents, employers and visitors. It is also important in provision of goods and services such as food, timber and space for recreation. These all have direct impacts on health and wellbeing and the economy of the county.

The risks and opportunities for Kent from environmental changes and the impacts those have on our wider economic and social wellbeing are not always addressed in our current processes and decision making. To successfully manage these risks and realise opportunities, the public sector, policy makers, businesses and residents need to continue to work together. These provide the focus for **priority 2 and priority 3: *Influencing strategy and policy, and Building resources, capabilities and changing behaviour.***



# THEME 1 BUILDING THE FOUNDATIONS FOR DELIVERY

## PRIORITIES

1	2	3	4
BRIDGING GAPS IN UNDERSTANDING OUR RISKS AND OPPORTUNITIES TO IDENTIFY ACTIONS	INFLUENCING STRATEGY AND POLICY	BUILDING RESOURCES, CAPABILITIES AND CHANGING BEHAVIOUR	MONITORING AND EVALUATION

## SUB-PRIORITIES

<p><b>1.1</b></p> <p>Strengthen our understanding of the health, social and economic value of our natural and historical assets</p>	<p><b>2.1</b></p> <p>To support decision makers, establish a central evidence base addressing Kent Environment Strategy priorities</p>	<p><b>3.1</b></p> <p>Develop knowledge networks, sharing best practice and training to build capacity for informed decision making</p>	<p><b>4.1</b></p> <p>Establish and monitor key performance indicators</p>
<p><b>1.2</b></p> <p>Continue to assess the economic, health and social impacts of climate change on our businesses, services and communities</p>	<p><b>2.2</b></p> <p>Use our evidence bases to influence local, national and EU strategy and policy as appropriate</p>	<p><b>3.2</b></p> <p>Establish a coordinated approach to identifying and maximising funding opportunities, establishing mechanisms for co-delivery as appropriate</p>	<p><b>4.2</b></p> <p>Evaluate progress and identify future risks, opportunities and actions aligned to the Kent Environment Strategy priorities to inform current and future actions</p>
<p><b>1.3</b></p> <p>Identify economic sectors with significant opportunities in relation to environmental change</p>	<p><b>2.3</b></p> <p>Review national and local strategic priorities to identify local policy gaps and implications on delivery of our priorities</p>	<p><b>3.3</b></p> <p>Develop an environmental communications and engagement strategy, improving awareness of priorities and supporting behaviour change</p>	
<p><b>1.4</b></p> <p>Improve our understanding of risks and opportunities related to specific resource constraints such as water and energy</p>			
<p><b>1.5</b></p> <p>Build our understanding of air quality impacts and associated health outcomes to determine targeted actions</p>			

SUPPORTING OUTCOMES AND INDICATORS:









# EVIDENCE TO ACTION: THEME ONE CASE STUDIES

EVIDENCE BASE

## CASE STUDY

### KENT HEALTH AND WELLBEING STRATEGY

The combined effects of a growing and ageing population, and a changing society and climate change, are placing new challenges on our health and social care needs.

As part of a Joint Strategic Needs Assessment (JSNA), the impacts to health and wellbeing across planning, housing, transport, air quality, climate, workplace and natural environment were considered. It is a cross-partnership assessment in Kent including: public health, Planning and Environment Division, NHS, Kent and Medway Air Quality Partnership, Local Nature Partnership and Kent Environment Strategy Executive Officers Group.

The JSNA highlighted a number of gaps, risks, and recommendations. These have informed the outcomes for a Joint Health and Wellbeing Strategy for Kent partners.

The strategy set out the direction for the NHS, social care and public health services across the county. It is informed by the JSNA and the strategic direction of partners, and is produced by the Health and Wellbeing Board on behalf of all local authorities and NHS Clinical Commissioning Groups in Kent.

ACTIONS/ACTIVITIES

## CASE STUDY

### LOCAL FLOOD RISK

Surface water flooding is estimated to affect 76,000 properties across Kent, 60,000 of which are residential. The risk of flooding is likely to rise with the increased frequency of severe weather events.



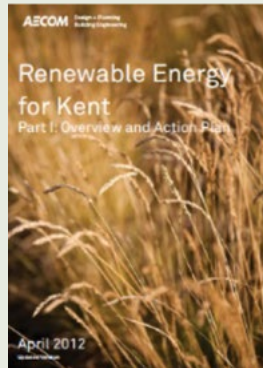
A Local Flood Risk Management Strategy has been developed from a collaboration of Kent County Council, district and borough authorities, Internal Drainage Board members, and the Kent Flood Partnership.

The strategy sets out a county-wide framework for managing the risk of local flooding; it supports authorities and communities in working together to manage flood risk.

## CASE STUDY

### RENEWABLE ENERGY OPPORTUNITIES

AECOM was commissioned to undertake a study into the current and future capacity of renewable energy in Kent. This supports our commitment to reduce CO<sub>2</sub> emissions and an ambition to develop a resilient and secure energy mix for all sectors.



The AECOM study was used to underpin the development of the Kent Renewable Energy Action Plan along with partners and key stakeholders across Kent.

The plan sets out key activities for the delivery of low carbon and renewable energy across: public sector, skills and training, planning and development, communities and business, and innovation.



## CASE STUDY

### BUILDING RESOURCES AND CAPABILITIES

The Water Framework Directive (WFD) sets out priorities for managing the quality of our rivers, lakes, coastal waters and ground water. A Catchment Based Approach has been adopted in Kent and Medway where collaborative working is taking place at a river catchment level. This approach is delivering practical and cost effective delivery with multiple benefits; these include not only water quality but also enhanced biodiversity, reduced flood risk, resilience to climate change and greater community engagement with our local rivers. Partnerships provide a catalyst to attract additional funds, raise awareness and champion the water environment.

The organisations engaged in this work include the Environment Agency, NGOs, Water Companies, Local Authorities and businesses, Government Agencies and rural interest groups, academia and community partnerships.



EVIDENCE BASE

ACTIONS/ACTIVITIES



# 2

## THEME 2

### MAKING BEST USE OF RESOURCES AND MINIMISING NEGATIVE IMPACTS

**AIM:** Existing infrastructure, assets and resources across public, private and domestic sectors are being managed to improve efficiency and deliver net benefits, build resilience and provide best value for our organisations and residents.



**OUTCOME:** All sectors are aware of their impact on the environment and how to minimise it through reducing resource usage and wasting less.

**RATIONALE:** Kent's infrastructure, resources and assets work to support and benefit 1.5 million residents and 59,500 businesses. This includes facilities for education, health, housing, utilities, highways and railways as well as the resources provided through our natural environment. How these assets are managed impacts our environment, economy, health and wellbeing. The priorities within theme two have been identified to make best use of our resources through efficient, resilient and innovative use, saving money whilst reducing negative impacts on our environment and health. Theme two focusses on our **current** assets, whilst theme three looks to future use.

### Our natural resources and assets

Kent's rural economy employs more than 46,000 people and is a rich mix of horticulture, viticulture, forestry, tree and soft fruit production, and diversification initiatives (open farms, golf courses, holiday accommodation etc.). In addition, our rural areas make up 85% of the county, with more than a third of Kent businesses having a rural location. As such, a quality natural environment is important to Kent's economy either directly or through attractiveness of location drawing business to the county

The natural environment as a whole is highly valued by Kent's residents, as is its role in ensuring the quality of water, air and land spaces. As evidenced in the Joint Strategic Needs Assessment (JSNA) for Kent and Medway, access to quality outdoor spaces is important to mental and physical health, through both physical exercise and improved social wellbeing, such as through volunteering or active leisure. On a much broader scale, Kent's natural environment is an important factor in regulating air and water quality and reducing risks from climate change. Ensuring that green infrastructure is maintained and enhanced can therefore deliver across multiple outcomes

## FUTURE WATER RISKS

The Kent Spatial Risk Assessment for Water looked at risks and opportunities to the water environment across Kent and Medway. It highlighted concerns over availability of water for agriculture and horticulture; primarily a result of the projected decreases in summer rainfall.

The outputs of the work are informing the activities of the Kent Rural Board Water Task Group, which is working with the irrigation sector and water companies on water efficiency and new technologies.

Kent's water resources comprise coastal, estuarine, freshwater (rivers and lakes) and groundwater sources that stretch across the county's coastal and inland areas. The quality and quantity of those water resources influence the way they are used for recreational purposes and commercial activities such as fishing, irrigation of crops and supply of drinking water as well as the health of the wide variety of habitats that they support. Compared to the rest of England and Wales, there are already significant stresses on our water resources from land use practices and population. As evidenced in the Kent Spatial Risk Assessment for Water, without considerable improvements in water use efficiency, water storage and wastewater treatment, climate change is likely to add to these stresses, ultimately impacting on the availability and cost of water to residents and businesses and the quality of our water environment and resources.

The county of Kent's natural and historical resources and assets provides focus for **priority 5: *Conserve and enhance the quality and supply of the county of Kent's natural and historical resources and assets.***

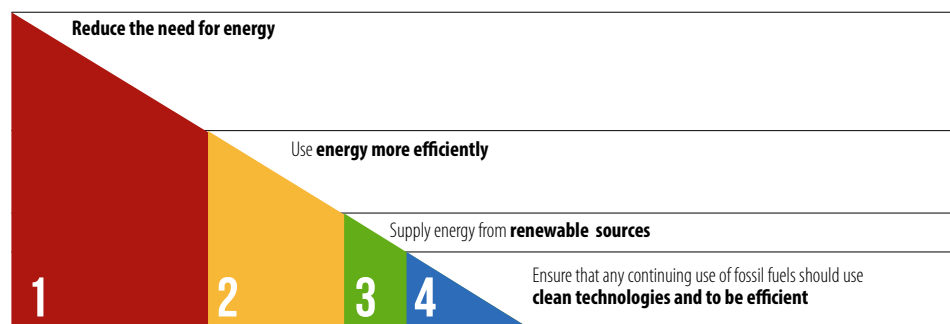


## Energy use and emissions

To address national and local drivers and legislation, Kent has committed to reducing county wide CO<sub>2</sub> emissions by 34% from a 2005 baseline by 2020. Reducing our carbon emissions can be tackled through reducing the demand for energy from non-renewable sources and using what we do need more efficiently e.g. through insulating buildings and using energy efficient equipment.

The domestic sector comprises a third of Kent’s carbon emissions. Retrofitting homes with energy efficiency measures can therefore help reduce the emissions associated with wasted heat. These measures also help to lower household energy bills, support our drive to help those in fuel poverty, and can have health benefits. The work of the Kent and Medway Sustainable Energy Partnership and the Warm Homes and Winter Warmth programmes have supported the reduction in the number of homes in fuel poverty from 13% to 10% since 2010.

The public sector has already been investing in energy and water efficiencies, putting in place renewable energy solutions, and transforming the way services are delivered to make better use of resources. Through this programme of sustainable investment, valuable costs savings have been made alongside contributions towards reducing the county’s CO<sub>2</sub> emissions. Reducing utility costs and minimising the environmental impacts of estates and travel are two ongoing focus areas for the Kent public sector.



**Figure 5:** The energy hierarchy highlights the need to first reduce the need for energy and to then implement resource efficiency measures

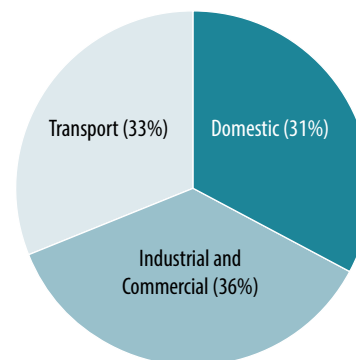
There continue to be opportunities to work with Kent and Medway businesses to help them save money whilst reducing CO<sub>2</sub> emissions. Work is already underway through the Steps to Environmental Management scheme (STEM); To date 525 businesses have been provided with free workshops on how to reduce costs through better energy and resource use. The STEM accreditation is recognised across Kent from working toward Kent Healthy Business Awards to providing the basis for going for further environmental accreditations such as ISO14001 and BS8555.

Reducing the usage of resources and wasting less provides the focus for **priority 6: Improve our resource efficiency such as energy and water.**

## Transport and accessibility

Transport has both positive and negative impacts on people’s health and the environment. It is vital for providing access to facilities and services, connecting businesses and communities and reducing social isolation. However, road transport contributes to a third of Kent’s CO<sub>2</sub> emissions and the additional pollutants from traditional vehicle fuels have negative effects on air quality and consequently health.

Kent and Medway are facing increased congestion on both rail and road links that could have impacts on the wider transport network. To address these key

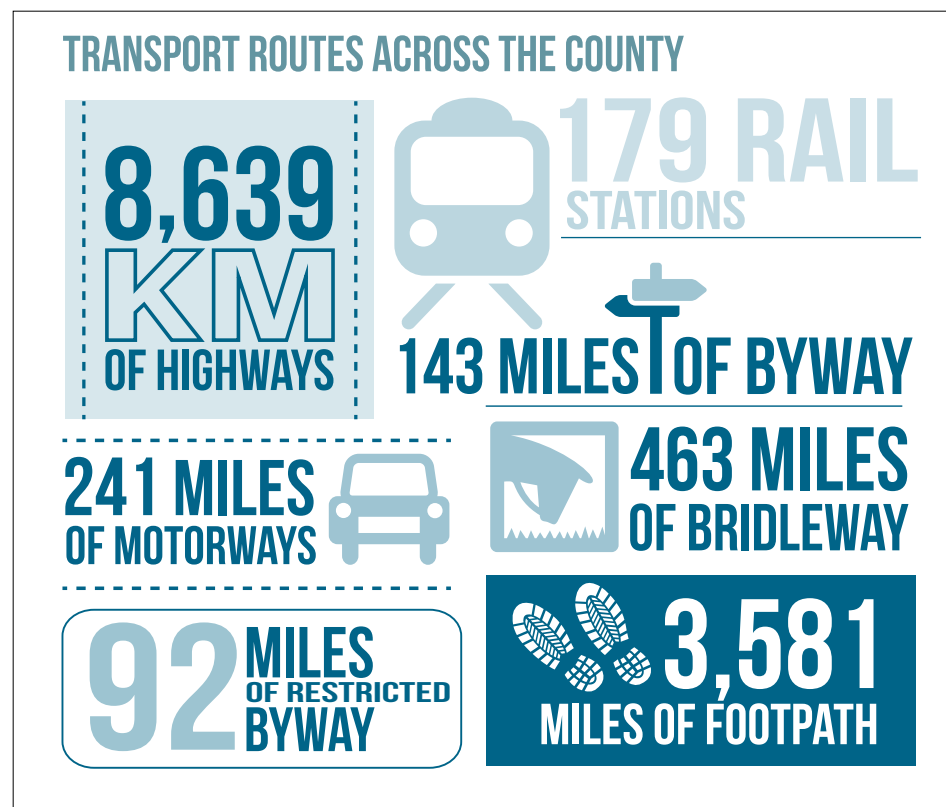
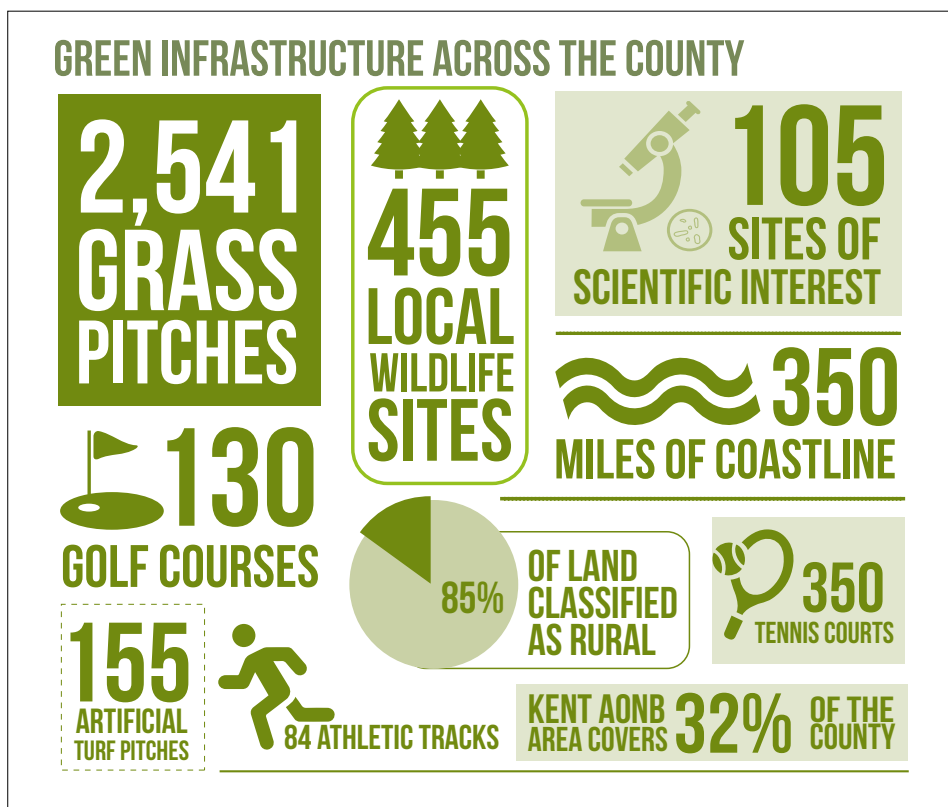


**Figure 6:** Proportion of CO<sub>2</sub> emissions per sector across the county; source: the Department of Energy and Climate Change (DECC)

issues, key transport strategies for local authorities such as 'Growth without Gridlock' and the 'Countryside and Coastal Access Improvement Plan' include a number of options for reducing congestion and the negative impacts of traffic through sustainable and active travel options. Active travel such as cycling and walking can support better health whilst reducing pollution and congestion. As such, an integrated transport approach would see greater accessibility to goods and services through a wider choice of transport options. Central to achieving this approach is ensuring that the positive benefits of active travel on the health and wellbeing of residents and visitors are recognised and widely communicated.

Kent is fortunate to have a vast network of Public Rights of Way and open green space, including an array of country parks, Kent Downs Area of Outstanding Natural Beauty (AONB) as well as some of the High Weald AONB. These play an important role in the culture of the county. The role of this valuable green resource is ever changing, not only providing a recreational outlet free to the public, but also enabling our communities to better value, understand and benefit from our environment.

The way residents, business and public sector of Kent travel to, provide and access services forms the focus for **priority 7: Ensure sustainable access and connectivity for businesses and communities**



# THEME 2 MAKING BEST USE OF EXISTING RESOURCES AND MINIMISING NEGATIVE IMPACTS

## PRIORITIES

<p><b>5</b></p> <p>CONSERVE AND ENHANCE THE QUALITY AND SUPPLY OF THE COUNTY OF KENT'S NATURAL AND HISTORICAL RESOURCES AND ASSETS</p>	<p><b>6</b></p> <p>IMPROVE OUR RESOURCE EFFICIENCY SUCH AS ENERGY AND WATER</p>	<p><b>7</b></p> <p>ENSURE SUSTAINABLE ACCESS AND CONNECTIVITY FOR BUSINESSES AND COMMUNITIES</p>
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## SUB-PRIORITIES

<p><b>5.1</b></p> <p>Establish a landscape-led approach to decision making through an improved understanding of the natural and historical features underpinning landscape character</p>	<p><b>6.1</b></p> <p>Reduce negative impacts and maximise the resource efficiency of public sector services, setting out our public commitments for energy, waste and water use reduction</p>	<p><b>7.1</b></p> <p>Make the most of Kent's countryside, heritage and coast through an integrated approach to sustainable access to these resources, supporting economic and health outcomes</p>
<p><b>5.2</b></p> <p>Improve and increase functional habitat networks and ensure that planning decisions enhance and protect our natural and historic environment</p>	<p><b>6.2</b></p> <p>Improve the resource efficiency of our homes through delivery of retrofitting programmes, reducing costs and improving health outcomes</p>	<p><b>7.2</b></p> <p>Ensure our residents, businesses and communities are well connected to services, with sustainable and active travel options</p>
<p><b>5.3</b></p> <p>Identify and take forward opportunities for sustainable water management to improve quality and quantity of our water environment and resources</p>	<p><b>6.3</b></p> <p>Work with businesses to reduce costs and negative impacts through improving compliance, efficiency, resilience and innovation in the use of resources</p>	<p><b>7.3</b></p> <p>Promote smarter working practices to improve efficiency and deliver health and economic benefits through reduced travel</p>
<p><b>5.4</b></p> <p>Establish land-use management approaches that create healthy viable soils</p>		
<p><b>5.5</b></p> <p>Develop heritage strategies to improve understanding and management of the historic environment</p>		

SUPPORTING OUTCOMES AND INDICATORS:





# EVIDENCE TO ACTION: THEME TWO CASE STUDIES

## CASE STUDY

### ADDRESSING FUEL POVERTY

Being unable to afford to adequately heat a home increases the risk of ill health for families and children and is a contributing factor of some excess winter deaths. Wasted heat from homes contributes to a third of the county's domestic CO<sub>2</sub> emissions. An estimated 10% of Kent households are in fuel poverty; and with rising fuel prices more residents may find it increasingly difficult to afford to heat their homes.

The Kent and Medway Sustainable Energy Partnership is a countywide strategic group composed of local authorities and housing providers. Their objective is to drive the retrofitting agenda: lower household bills and tackling fuel poverty; reduce CO<sub>2</sub> emissions through energy efficiency; and supporting businesses to make the most of this sector.

The partnership is delivering the Warm Homes programme using Energy Company Obligation funds to make retrofitting measures available to those most vulnerable residents. Since 2013 more than 1,400 insulation measures have been installed to over 1,300 homes.



## CASE STUDY

### JAMBUSTERS

There are almost 600 schools and 60,000 businesses in Kent; contributing to peak hour congestion, increasing emissions and negatively impacting on health, and on Kent's growth.

Travel plan management, and promotion of alternative modes of travel can help reduce congestion and associated impacts. It can however be staff intensive to support every school and business with travel plans and encourage sustainable travel use.



Jambusters has been developed to provide support to schools through a one-stop-shop for access to online travel plan templates, annual review forms, grants and further guidance and advice to help achieve their targets. Schools are able to apply for capital grants which are used to deliver infrastructure linked to encouraging sustainable travel to their site.

Registration has been increasing annually and in 2014 capital grants were offered to 37 schools to introduce measures which reduce car use and improve uptake of active travel, such as walking and cycling. The service is now being rolled out to include businesses.

EVIDENCE BASE

ACTIONS/ACTIVITIES

## CASE STUDY

### OUR LAND

Kent's natural and heritage assets are a key attraction for visitors to the county. It is therefore important to ensure that tourism is developed sensitively, to conserve and enhance the landscape and generate local economic benefit, while integrating sustainable tourism activity into daily business practices.

Our Land is a sustainable tourism initiative. It is collaboration between protected landscapes and the private sector, providing a national platform for marketing and for protected landscapes to contribute, share best practice, collaborate and come together on responsible tourism issues, now and into the future.



## CASE STUDY

### BUSINESS SAVING MONEY, SAVING CARBON

There are more than 60,000 registered businesses in Kent, the vast majority being SMEs. With a growing low carbon and environmental services sector, there are many opportunities for these businesses to make the most of identified opportunities in innovative business practices, new markets and to improve their credentials and competitiveness.

Supporting businesses to be more energy and resource efficient means they are saving money and reducing their CO<sub>2</sub> emissions. However, official accreditation schemes can be costly and staff intensive for businesses.

Steps to Environmental Management (STEM) is a Kent and Medway recognised accreditation. The free workshops bring SMEs together and provide the knowledge on how they can save money by saving energy, reducing waste and resources. STEM also helps businesses comply with environmental legislation and support them in achieving standards like ISO14001.

Over 500 SMEs have achieved accreditation. On average annual savings are over £2,000 and 3.9 tonnes of CO<sub>2</sub> per business. STEM is Kent-wide and has been run by many local authorities to share the benefits of environmental management with their supply chains and local SMEs.







# 3

## THEME 3

### TOWARD A SUSTAINABLE FUTURE

**AIM:** Kent's communities, businesses, environment and services are resilient to environmental change whilst making the most of the economic and health opportunities this brings. Our communities are well designed and sustainable, improving prosperity, health outcomes and social wellbeing. Innovation in low carbon, resource and environmental business sectors is delivering economic growth in the county.



**OUTCOME:** Kent is actively addressing the risks and opportunities from environmental and climate change, whilst delivering wider economic and health priorities.

**RATIONALE:** Where theme two focussed on the resource efficiency and resilience of our current resources and assets, theme three seeks to ensure that the decisions and plans we make for the future, support residents, businesses and communities in addressing the challenges and opportunities we are likely to face.

### Sustainable growth

In the context of planned growth across the county, as set out in the 'Kent and Medway Growth and Infrastructure Framework', there is a need and an opportunity to integrate measures that will ensure that infrastructure and asset development will be more sustainable without significant detrimental economic, social and environmental impacts. We have commitments to carbon reduction and renewable energy generation, and incentives and legislation to manage air quality; this will require additional low carbon and renewable energy infrastructure, smarter business and travel choices along with the increased uptake of energy demand reduction initiatives. Decisions on development and infrastructure need to consider and integrate such requirements.

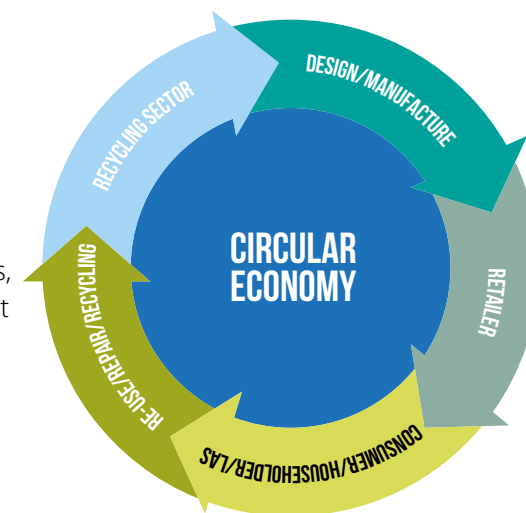
The natural environment has an important role to play in those cross-cutting priorities and while the enhancement of existing green spaces will be required (as described in Theme Two), new multifunctional green infrastructure will also be required. Green infrastructure encompasses the range of Kent's high quality natural and semi-natural spaces such as parks, amenity spaces, verges and rivers. Benefits of green infrastructure include regulating air and water quality; reducing the impact of development on the landscape character; and delivering natural approaches to managing environmental risks, such as flooding.

Growth will need to be met with careful management of our resources in order to ensure the quantity and quality of supply of water, energy and other raw materials. The risks to the future water environment have been identified through the Kent Water Spatial Risk assessment as being excess surface water during increased downpours and drought during hotter temperatures.

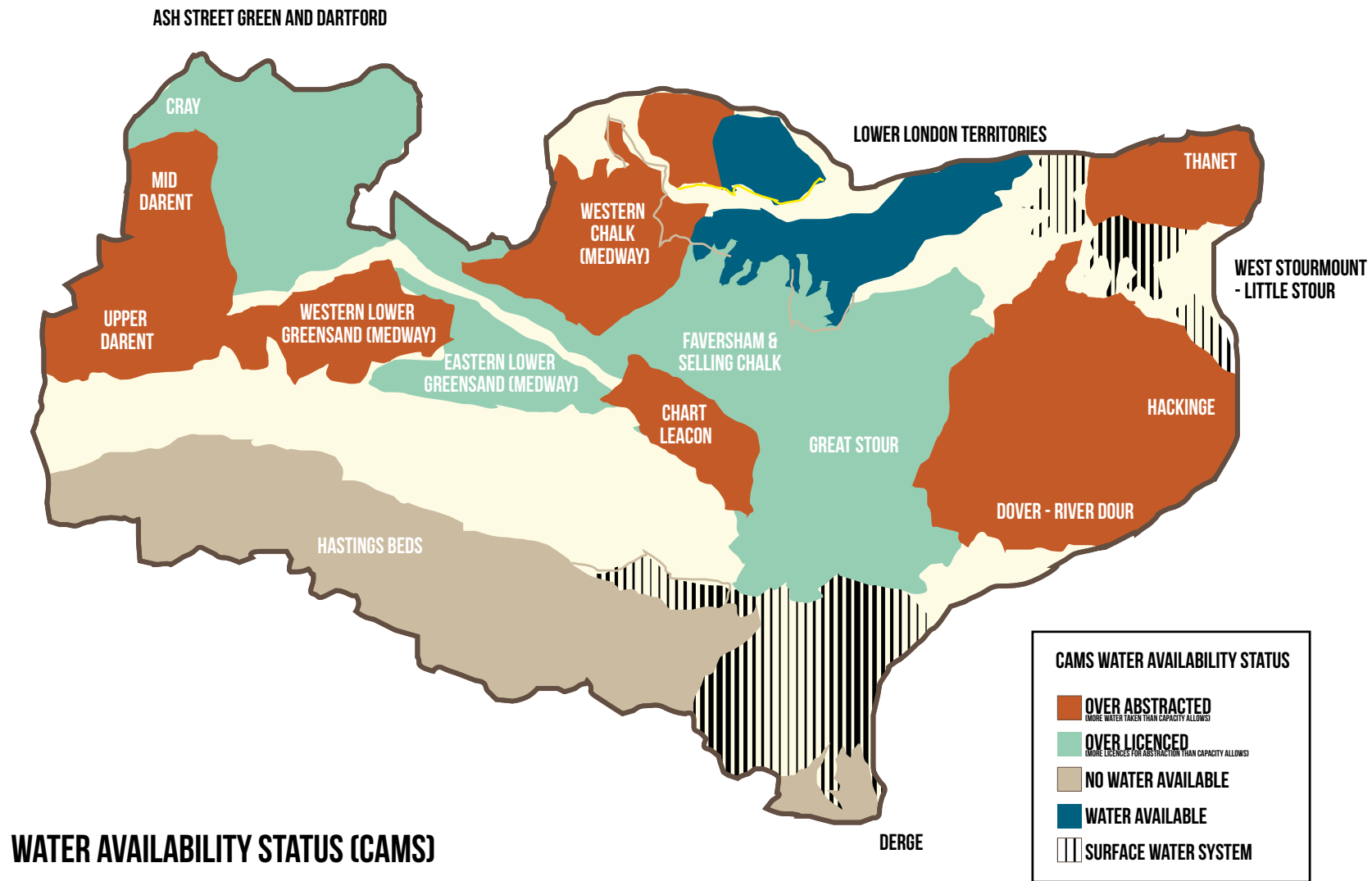
Ensuring that future decisions on services, development and planning are integrating understanding of environmental change and wider health and economic benefits forms the focus of **priority 8: Influence future sustainable growth for the county of Kent and priority 9: Improve the county of Kent's environmental, social and economic resilience to environmental change.**

### Economic growth and circular economy

The Low Carbon and Environmental Goods and Services (LCEGS) sector forms an important element of Kent's economy. It is estimated to employ more than 55,000 people and is an important resource for skills and expertise that can support the county's sustainable growth requirements. The sector incorporates a range of businesses that either directly or indirectly support the decarbonising of the energy sector; improving resource efficiency; or preserving and enhancing the natural environment. Sectors in retrofitting, low carbon new builds, offshore wind, waste management and recycling are highlighted as particular growth areas, but support will need to continue through funding, business advice and guidance.



**Figure 7:** Availability of ground and surface water varies across the county with some areas already at capacity.  
 Source: Catchment Abstraction Management Strategies (CAMS) water availability map: The state of water in Kent, 2012





Competition for resources like water is increasing due to population growth, changing consumer habits and technology trends. Concentration of some resources outside of the UK and Europe, particularly critical raw materials, makes our industries and society dependent on imports and increasingly vulnerable to high prices, market volatility, and the political situation in supplying countries. At the same time, this demand for raw materials is causing environmental degradation which threatens to damage ecosystems and the valuable services they provide. Through adoption of circular economic principles those challenges can be met by keeping the value of the materials and energy used in products for as long as possible, minimising waste and resource use. At the same time, this promotes competitiveness, contributes to growth and job creation, and protects our environment. It can also provide consumers with longer-lasting and innovative products that save them money and improve their quality of life. These opportunities and benefits have been recognised by the UK Central Government<sup>3</sup> and the European Commission's roadmap toward a resource efficient Europe<sup>4</sup>. Supporting growth of this sector and development of the circular economy form the focus of **priority 10: Supporting growth in the rural economy and low carbon and environmental services sector.**

## Building resilience to the impacts of environmental change

Kent's geographical location and long coastline means that it is likely to suffer from some of the severest impacts of climate change in the UK. This will have repercussions for our communities, businesses, services and infrastructure but preparing for these changes can drive innovation and support growth as well as improving the health and wellbeing of our residents and businesses. Kent's Adaptation Action Plan took a risk based approach to identifying those risks and developing appropriate actions. To ensure we are prepared for environmental changes now and into the future priorities have been reviewed and integrated into this strategy. These aspects form the focus of **priority 9: Improve the county of Kent's environmental, social and economic resilience to environmental change.**

### MONITORING THE IMPACTS OF SEVERE WEATHER ON KENT

The Severe Weather Impacts Monitoring System (SWIMS) provides a system of data collection on how services provided by Kent partners are affected during severe weather events. The data is important for future planning for these events.

*Over the winter of 2013/14 Kent was impacted by five severe weather events which impacted over 3,000 properties and over 150 services, costing services providers over £4million.*

*A survey of 984 Kent businesses revealed that 68% have been affected by severe weather events causing a range of disruption to day-to-day operations.*

<sup>3</sup>[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/265022/pb14091-waste-prevention-20131211.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265022/pb14091-waste-prevention-20131211.pdf)

<sup>4</sup>[http://ec.europa.eu/environment/circular-economy/index\\_en.htm](http://ec.europa.eu/environment/circular-economy/index_en.htm)

**Figure 9:** illustrating the possible effects of temperature changes across sectors; using the latest UK Climate Projections by 2050 Kent and Medway are likely to see winter temperatures to be warmer by 2.0°C, summers by 2.8°C; winter rainfall is likely to increase by 14% and summer rainfall likely to decrease by 24%.



# THEME 3 TOWARD A SUSTAINABLE FUTURE

## PRIORITIES

<p><b>8</b></p> <p>INFLUENCE FUTURE SUSTAINABLE GROWTH FOR THE COUNTY OF KENT</p>	<p><b>9</b></p> <p>IMPROVE THE COUNTY OF KENT'S ENVIRONMENTAL, SOCIAL AND ECONOMIC RESILIENCE TO ENVIRONMENTAL CHANGE</p>	<p><b>10</b></p> <p>SUPPORTING GROWTH IN THE RURAL ECONOMY AND LOW CARBON AND ENVIRONMENTAL SERVICES SECTOR</p>
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## SUB-PRIORITIES

<p><b>8.1</b></p> <p>Ensure that key environmental risks such as flooding, water scarcity and heat are informing policy decisions and development</p>	<p><b>9.1</b></p> <p>Increase awareness of the impacts of severe weather and environmental change and empower businesses and communities to build resilience</p>	<p><b>10.1</b></p> <p>Support business innovation, smart technologies and development of the circular economy to deliver economic growth</p>
<p><b>8.2</b></p> <p>Address the environmental challenges and ambitions identified in the Growth and Infrastructure Framework and core strategies, such as green infrastructure, renewable energy, water and flooding</p>	<p><b>9.2</b></p> <p>Ensure that public sector services have assessed key environment and severe weather risks and opportunities and are taking action accordingly</p>	<p><b>10.2</b></p> <p>Maximise the opportunities for the rural sector</p>
<p><b>8.3</b></p> <p>Develop guidance and support to enable sustainable growth protecting the county of Kent's environmental and historic assets, and supporting healthy, prosperous communities</p>	<p><b>9.3</b></p> <p>Improve water management and build flood resilience, maximising opportunities to deliver multiple benefits for our environment and residents into the future</p>	<p><b>10.3</b></p> <p>Support skills development to facilitate growth</p>
	<p><b>9.4</b></p> <p>Build resilience to the impacts of environmental change, disease and invasive species on plant and animal health</p>	<p><b>10.4</b></p> <p>Widely promote the county of Kent as the place for low carbon and environmental businesses</p>

SUPPORTING OUTCOMES AND INDICATORS:





# EVIDENCE TO ACTION: THEME THREE CASE STUDIES

EVIDENCE BASE

## CASE STUDY

### HEALTH AND SUSTAINABILITY IN PLANNING DECISIONS

As part of a Joint Strategic Needs Assessment (JSNA), the impacts to health and wellbeing across planning, housing, transport, air quality, climate, workplace and natural environment were considered. It is a cross partnership assessment in Kent including: public health, Planning and Environment Division, NHS, Kent and Medway Air Quality Partnership, Local Nature Partnership and Kent Environment Strategy Executive Officers Group.

As part of that assessment a key recommendation was to integrate sustainability and health into the planning system with partners through an online toolkit.

An online resource has been developed to help planners make informed decisions in support of healthcare and sustainability, while working within the National Planning Policy Framework in a locally appropriate way. It also facilitates and supports joined up working between planning, health and sustainability officers across the county in order to deliver across multiple outcomes more efficiently.

ACTIONS/ACTIVITIES

## CASE STUDY

### MASTER PLANNING GUIDE FOR SUSTAINABLE DRAINAGE

New development has the potential to significantly impact its surrounding environment, given the changes which occur with increased impermeable surfaces, increased population and traffic management. More impermeable surfaces result in increased surface water flows from a development site. This may contribute to increased flood risk, reduced water quality and adverse impacts on the environment.

Authorities from across Kent and the Southeast have produced guidance which outlines the process for integrating sustainable drainage systems (SuDs) into the master planning of large and small developments.

Sustainable drainage which seeks to mimic natural processes through an integrated drainage network can be designed to mitigate some or all of these impacts.



## CASE STUDY

### CHALARA ASH DIEBACK IN KENT

Kent is among one of the first areas of England to be badly affected by Chalara Ash Dieback. Ash is the most common tree in Kent and this significant disease has negative impacts on the unique landscape and habitats of the county.



In response to the threat to Kent from this disease, the Kent Downs Area of Outstanding Natural Beauty unit has worked closely with partners in the Arboriculture Association, Forestry Commission and Kent County Council to produce information offering practical advice on slowing its spread through the county. This has been distributed to local authorities, highway authorities, private tree and woodland owners, and contractors in Kent.

## CASE STUDY

### A GROWING LOW CARBON SECTOR AND ECONOMY

The low carbon sector is the most rapidly growing sector nationally; it is estimated to contribute £1 billion to the Kent economy, employing directly or indirectly up to 55,000 people. It includes businesses that either operate in a sustainable way or are delivering low carbon/green products or services.

Areas of particular growth have been highlighted for the housing retrofitting, low carbon new build, offshore wind, waste management and recycling sectors. There are also many opportunities for services that operate with the natural environment and resources sector.

Kent County Council works through Low Carbon Kent to support the growth of this sector by providing help, guidance, referrals and grants. The work is in partnership with local councils, SMEs, Locate in Kent, BSK-CiC, universities and business support organisations.

Through ERDF funding, the Low Carbon Kent partnership has been able to provide 86 grants totalling £1 million to businesses across a range of sectors including: construction, energy, retrofit and renewable energy.

## ENERGY



### TARGETS

- We will reduce our emissions across the county by 34% by 2020 from a 2012 baseline (2.6% per year)
- 10% of the energy generated in Kent will be from renewable sources by 2020 from a 2012 baseline

### INDICATORS

- Electricity generated through renewable sources
- GHG emissions reporting for the county and sectors

## WATER



### TARGETS

- We will reduce water use from 160 to 140 litres per person per day
- We will achieve Water Framework Directive 'good' status for surface waters by 2020
- Number of properties protected from new flooding schemes
- Reduce the number of properties at risk from flooding

### INDICATORS

- Household water use
- River flows and ground water levels
- Water Framework Directive
- Bathing and shellfish water quality
- Number of properties at risk from flooding
- Number of people signed up to Floodline Direct

## NATURAL AND HERITAGE ASSETS



### TARGETS

- We will increase the overall extent of priority habitats by 10,260 hectares by 2020
- 60% of local wildlife sites will be in positive management and 95% of SSSIs will be in favourable or recovering status by 2020
- Status of bird and butterfly species in Kent
- We will have completed a natural capital assessment for Kent by 2017
- Heritage assets at risk

### INDICATORS

- Percentage wildlife sites in positive conservation management
- Increase in overall extent of priority habitats by 10,260ha
- Status of butterfly species in Kent
- Number of people volunteering in the natural and historic environment and hours spent
- Monitoring Engagement with the Natural Environment (MENE) – Natural England
  - Overall visits to the Natural Environment
  - Volume of visits to the natural environment by activity

## SUSTAINABLE TRANSPORT AND ACCESSIBILITY



### TARGETS

- Annual train and bus usage data
- Annual survey and data collection on transport modes for schools and businesses
- Modal shift?

### INDICATORS

- School survey data
- Business Surveys – Kent Connected
- Train station footfall
- Traffic count
- Increase in bus usage
- Smarter challenge survey

## RESILIENCE



### TARGETS

- Number of communities with resilience plans in place, prioritising those at highest risk
- Public sector services will have reviewed climate risk assessments and have developed actions as appropriate by 2018
- Emergency plans reviewed and guidance developed for key animal and plant health risks, e.g., Ash Dieback
- Number of SMEs who have undertaken a business resilience health check

### INDICATORS

- Resilience plans in place
- Risk assessments completed
- Severe Weather Impacts Monitoring System reporting (SWIMS)

## SKILLS



### TARGETS

- We will work to increase the number of jobs in the Low Carbon and Environmental Goods and Services sector by 10% by 2020
- We will support 500 businesses to increase resilience and build innovation in LCEGS by 2020
- Skills development target?

### INDICATORS

- How many people are employed in the LCEGS sector
- Increasing resilience of businesses

## HEALTH AND WELLBEING



### TARGETS

- Decrease the number of days of moderate or higher air pollution and the concentration of pollutants
- We will increase volunteering hours by 20% with 20% more residents taking part in organised activities by 2020
- We will work to increase use of outdoor space for health initiatives from 12%

### INDICATORS

- Road, rail and transport noise exposure during daytime
- Utilisation of outdoor space for health reasons
- Fuel poverty – percentage number of households
- Social isolation
- Air pollution
- Public Health Outcomes

## WASTE



### TARGETS

- We will send no more than 5% waste to landfill by 2020
- We will reduce household waste by 10% by 2020

### INDICATORS

- Household recycling
- Landfill reduction
- Municipal waste arising's and treatment



# KENT ENVIRONMENT STRATEGY

This leaflet is available in alternative formats and can be explained in a range of languages. Please contact [alternativeformats@kent.gov.uk](mailto:alternativeformats@kent.gov.uk)



DATACTION



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