KENT ENVIRONMENT STRATEGY

A STRATEGY FOR ENVIRONMENT, HEALTH & ECONOMY - MARCH 2016

CONTENTS

FOREWORD

The uniqueness and beauty of our county and its high quality landscapes, resources and assets are greatly valued by residents, businesses and visitors alike. In 2011, Kent partners agreed an ambitious and forward looking strategy to ensure that the county's many environmental and associated economic opportunities were recognised. There have been significant achievements to celebrate from the last four years, many of which are highlighted here. However, we are not complacent, and we are clear that there is still much to do.

Kent faces unprecedented growth and change over the coming decades. Kent Environment Strategy 2015: A strategy for environment, health and economy recognises and addresses the challenges and opportunities that this will bring. It is essential that growth is managed intelligently, providing much needed economic benefits, whilst still protecting and enhancing our natural and historic environment to create and sustain communities that are vibrant, healthy and resilient.

Working together, our task is to continue to harness the many opportunities to create positive environmental, health and economic outcomes, ensuring Kent remains a place of choice to live, work and visit.

Chair of Kent Leaders and Leader of Kent County Council

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, 350 mile coastline, landscape history, southerly location and proximity to the continent. Its high quality, diverse landscapes, seascapes, 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. In times of tightening resources, by taking a robust, evidence-based approach we can ensure that we are prioritising and delivering the right activities for the county of Kent.

Over the coming decades Kent faces unprecedented levels of growth. The pressures this will bring as a result of new infrastructure, and the decisions we make to address them, will directly impact our environment, economy and wellbeing. We will need to take an intelligent, sensitive and balanced approach, supporting healthy, resilient communities, protecting and enhancing the intrinsic value of our natural assets and continuing to grow and support the Kent economy. This strategy and associated implementation plan seeks to provide support to decision makers in ensuring that the county of Kent remains the highly desirable location of choice for visitors, residents and businesses.

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 seeks to 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_2 emissions by 21%, equivalent to 2,831 kilotons CO_2, 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 contributes to approximately five percent of deaths per year and possibly contributes to more mortality and morbidity than passive smoking. 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 for residents and businesses that when congested result in delay on the wider local network, with significant impacts on our economy. 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. Air traffic noise pollution, and associated risks for air quality, is a key concern for large areas of West Kent, particularly in relation to Gatwick Airport, resulting in this being a major issue for many of our residents.

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. An evidence based approach to decision making and how we influence strategy and policy will support the right decisions being made for the county for major transport infrastructure.

- **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. 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 across rural and urban areas. 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 agriculture all require space and resources, putting pressure on the county's landscapes and changing how we use the land. This also has an impact on the quality of our soils and their ability to sustain life, reduce carbon emissions and support resilience to climate change and its impacts such as flooding. The way land is used in communities and development also has a significant impact on population health and wellbeing, affecting mortality and morbidity risk and leading to direct implications for health and social care services. 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. The decisions we make in how growth is delivered for Kent will be vital to maintain the assets our residents value.

- **Biodiversity:** In Kent we have not met our Biodiversity 2010 targets and with biodiversity continuing to decline, it is likely that we will also fail to meet our Biodiversity 2020 targets without targeted interventions. A healthy natural environment, rich in biodiversity, provides more effective services; the economic impact that degraded habitats have on ecosystem services, for example through the decline in pollinators, is increasingly recognised. Although there have been real gains for wildlife in some areas, there is still a gradual loss of habitats and species in the county, for example of the Local Wildlife Sites monitored over the past five years, 30% have been damaged and 2% lost. This represents a significant threat to the intrinsic value of Kent's natural environment and to the economic and social benefit that it provides.

- **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:** Since the last strategy, environmental policies at both national and local levels have changed substantially, and are continuing to do so, requiring regular reviews and prioritisation of resources. Public sector finances continue to be constrained and across the county, we will need to work more efficiently with the resources that we have. This means identifying opportunities to deliver across outcomes, working in partnership and accessing external funding wherever possible to deliver our priorities. Supporting and delivering the environment strategy will require input and drive at all levels and across individuals and organisations, from residents and voluntary groups to government and businesses.

image c/o Bloomsbury's Biddenden

Development of the strategy provides a framework to ensure that resources are utilised to greatest impact

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, avoiding or minimising negative impacts

Outcome: All sectors are aware of their impact on the environment and how to avoid or reduce this through evidence based decision making, reducing resource usage and wasting less.

THEME THREE: Toward a sustainable future

Outcome: Kent is actively addressing the risks, impacts 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.

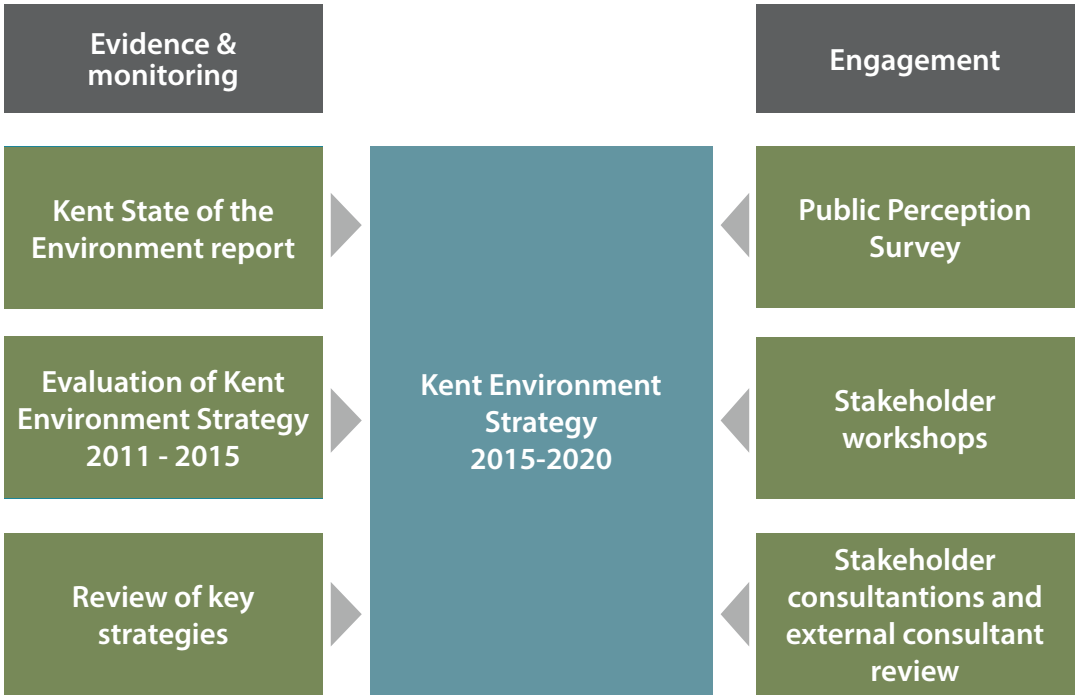
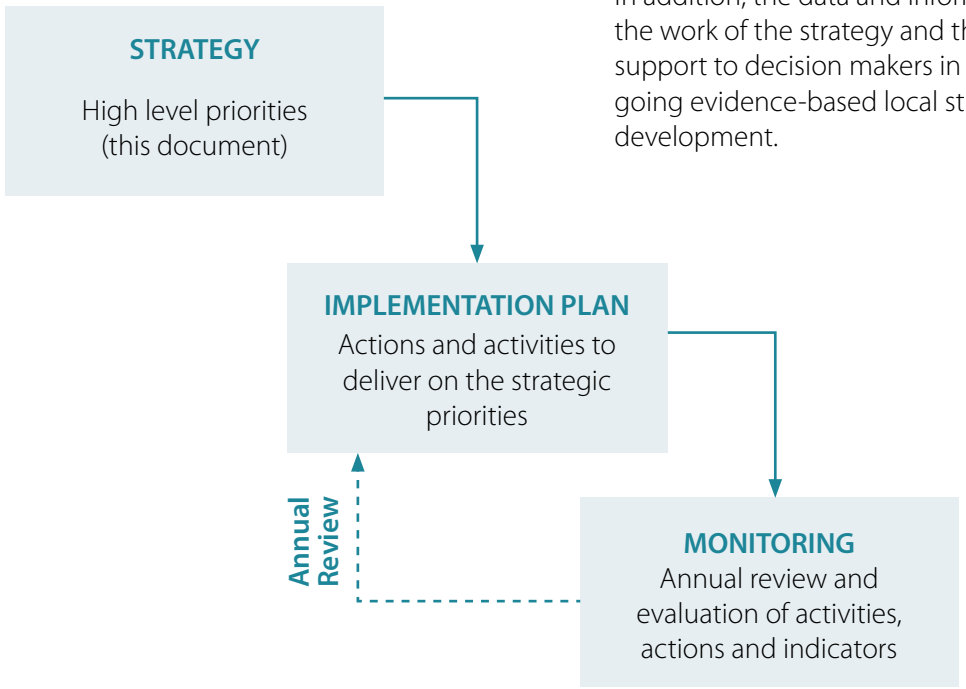


Figure 2: The review process of the Kent Environment Strategy

HOW WE WILL DELIVER THE STRATEGY

The strategy represents the high level priorities for Kent in terms of environment and related health and economic outcomes. The delivery of those priorities will be met through the implementation plan and the actions and activities detailed within it. Monitoring of the implementation plan through associated indicators will take place annually.



The Kent Environment Strategy does not stand alone, it is one of a suite of documents detailing priorities for the county of Kent, a number of which are highlighted below (although this by no means represents the breadth of activity across partner organisations). These strategies are interlinking and delivery of the Environment Strategy will link to these, plans and organisations as appropriate to prevent duplication and maximise use of resources.

In addition, the data and information gathered through the work of the strategy and the priorities will provide support to decision makers in development of on-going evidence-based local strategy, policy and plan development.

Planning and Infrastructure:
- District and Borough Local Plans
- Growth and Infrastructure Framework
- Kent Housing Strategy
- Minerals and Waste Development Plan

Economic:
- Growth strategies at Local Enterprise Partnership (LEP) and local level

Health:
- Joint Strategic Needs Assessment (JSNA)
- Health and Wellbeing Strategy
- Living Well

Transport and Accessibility:
- Local Transport Plan 4
- Active Travel Strategy
- Countryside Access and Improvement Plan

Social:
- Child Poverty Strategy
- Fuel Poverty Strategy

Natural Environment:
- Kent Nature Partnership Action Plan
- AONB Management Plans

Rural:
- SE LEP Rural Strategy

Resilience:
- Local Flood Risk Strategy
- Kent Resilience Forum

There are multiple organisations and partners involved in delivery of the KES who are represented on the following groups and networks. These include, amongst others, all Local Authorities in Kent, Defra, Natural England, the Environment Agency, Kent Wildlife Trust, Kent Downs AONB, High Weald AONB, Kent and Medway Sustainable Energy Partnership, Kent Rural Board, Kent Fire and Rescue Service, Kent Police, NHS, Clinical Commissioning Groups, Local Health and Wellbeing Boards, Chamber of Commerce and other business networks and voluntary groups.

Coordination of the strategy and implementation plan is directly through the Kent Environment Strategy Steering Group, with strategic direction through a number of partnerships. 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.

The roles of the groups and networks are further detailed in the implementation plan that sits alongside this strategy.

Kent Leaders is a high-level strategic group made up of the democratic Leaders of Kent County Council, the 12 District Councils in Kent and Medway Council.

The **Joint Kent Chiefs** focus on many of the same strategic themes as the Kent Council Leaders but also looks more into the core business of the public agencies present, overseeing joint pieces of work, and identifying tangible opportunities to work more closely together and raising and tackling issues significant to Kent.

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.

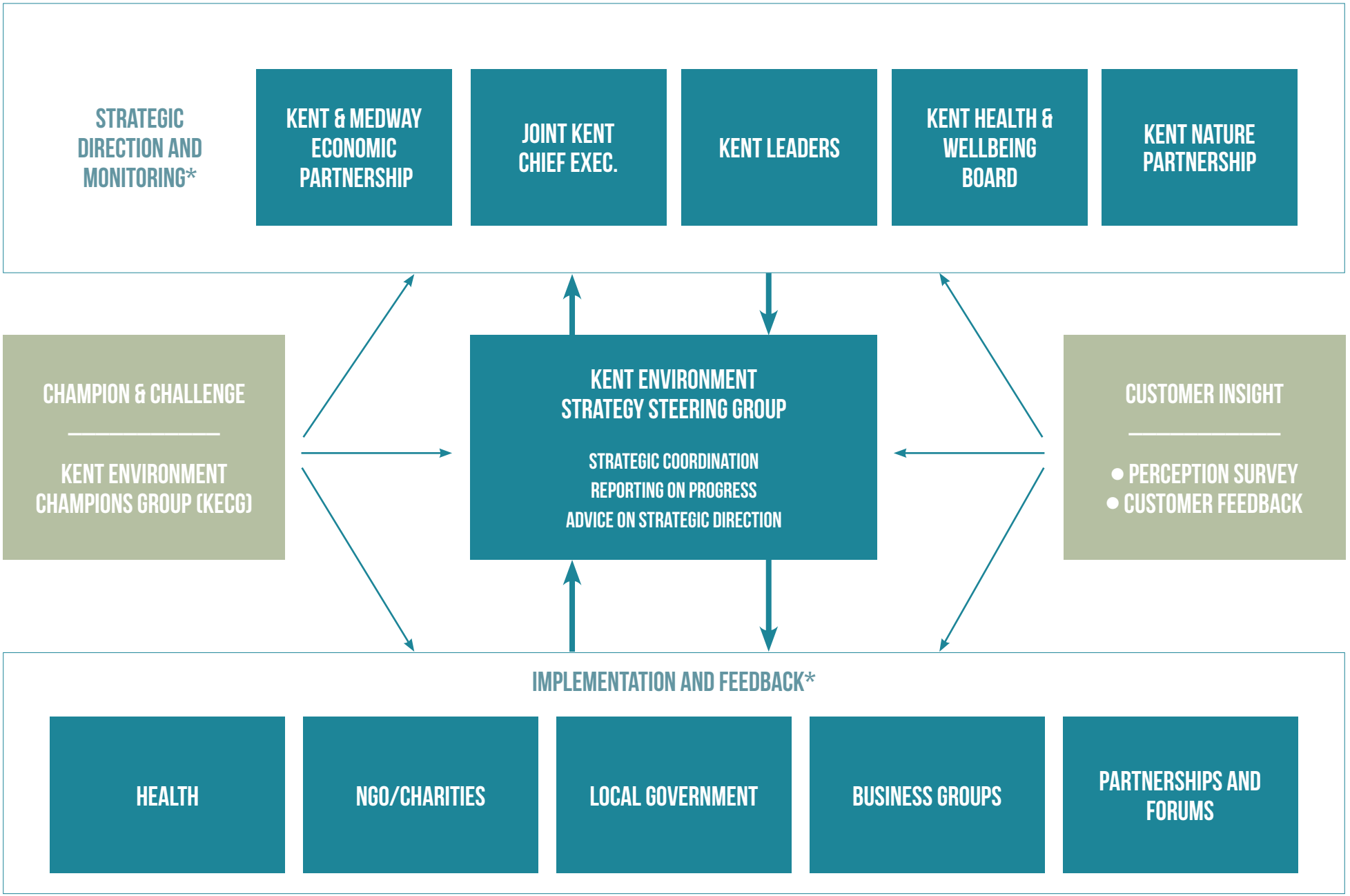
The **Kent Health and Wellbeing Board** was established by the Health and Social Care Act 2012. The Board leads and advises on work to improve the health and wellbeing of the people of Kent through joined up commissioning across the NHS, social care, public health and other services.

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.

The **KES Steering Group** (KESSG) consists of representation from across the strategic and delivery groups identified, ensuring the strategy is delivered and evaluated effectively and maximising opportunities to deliver across outcomes.

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



*Representatives sit on the Kent Environment Strategy Steering Group
The main reporting line will be to Kent Leaders and Joint Chief Execs

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.

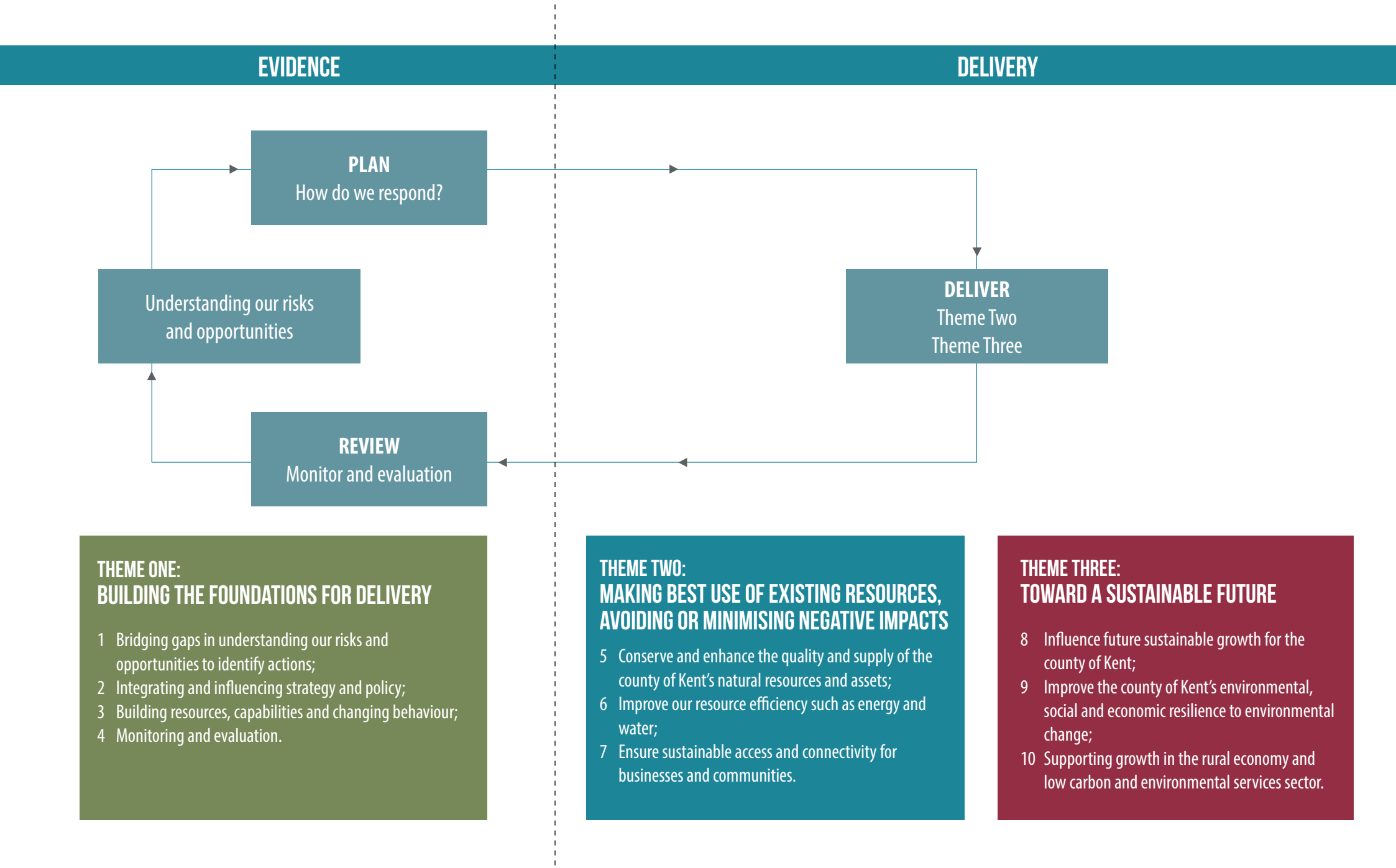


Figure 4: The overall structure of the 2015 Kent Environment Strategy and the relation of the themes.

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 intrinsic value of our environment is understood and the benefits to our economy, health and wellbeing are widely communicated with partners 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 local and national networks and partnerships, identifying opportunities for the co-delivery of outcomes and influencing local and national 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 evidenced based approach and engage with a range of stakeholders across the public, private and community sectors. 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 to support evidence-based decisions and influencing, such as valuing our natural assets, understanding our energy and water resources, identifying the financial and social implications of severe weather and climate change, and developing our understanding of air and noise quality impacts on health, particularly in relation to major transport infrastructure. 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 support biodiversity, improve water quality, reduce air pollution 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 work together to influence policy, deliver activity and change behaviour across all sectors, age and socio-economic groups, tailoring and targeting communications as appropriate. These provide the focus for priority 2 and priority 3: *Influencing strategy and policy, and Building resources, capabilities and changing behaviour.*

To ensure that the activities we deliver remain effective, it is essential that we monitor and evaluate progress, learning from our mistakes and our successes to remain on track for delivery of our priorities. In order to do this, we need clearly defined and measurable indicators, many of which will need further development over the lifetime of this strategy as data is currently unavailable. National monitoring has reduced substantially, along with the associated resource, and so we will need to establish locally measurable alternatives wherever possible. Risks and opportunities will continue to develop, for example on-going changes in our political landscape and policies, which will directly impact delivery. This on-going assessment forms the focus of priority 4: *Monitoring and evaluation.*

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

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

Delivery of activity against these priorities along with associated leads and timelines will be detailed in the Implementation Plan

SUPPORTING OUTCOMES AND INDICATORS:

EVIDENCE TO ACTION: THEME ONE CASE STUDIES

EVIDENCE BASE

ACTIONS/ACTIVITIES

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.

Reference: http://www.kpho.org.uk/joint-strategic-needs-assessment/jsna-service-provision/jsna-sustainability

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.

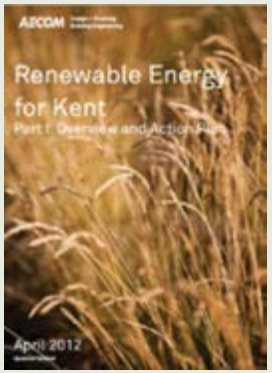
The strategy sets out a county-wide framework for managing the risk of local flooding; it supports authorities and communities in working together to manage flood risk.

Reference: http://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planning-policies/flooding-and-drainage-policies/kent-flood-risk-management-plan

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_2 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.

Reference: http://www.kpho.org.uk/joint-strategic-needs-assessment/jsna-service-provision/jsna-sustainability

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.

2 THEME 2

MAKING BEST USE OF EXISTING RESOURCES, AVOIDING OR 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 avoid or reduce this through evidence based decision making, 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, food production, utilities and 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 arable farming, animal husbandry, horticulture, viticulture, forestry, top and soft fruit production, and diversification initiatives (open farms and 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

Kent's marine habitats are nationally important for their biodiversity and have significant economic importance, as a tourism resource and for the fishing industry. Activities are needed to ensure healthy seas, and the long term success of the fishing industry with the establishment of a coherent network of Marine Conservation Zones.

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 study highlighted that some of the key concerns for the county relate to availability of non-mains water during summer, impacts on agricultural and industrial users, and costs of mains water.

2015 marks the International Year of Soils. Functional and healthy soils are vital to our biodiversity, food security and sustainable growth. They play a key role in supply of clean water, resilience to flood and droughts, carbon cycle and consequently adaption to climate change, and form the basis for our food

production. It is crucial that we promote sustainable soil and land management practices that enhance and preserve good quality soils.

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_2 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 and changing behaviours 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.

However, funding for retrofitting measures is complex and has recently been significantly reduced. This uncertainty has led to a marked decrease in retrofitting with subsequent impacts on residents and local businesses supplying energy efficiency measures. Future programmes developed through this strategy will need to investigate opportunities to improve consistency in policy and funding and in 2016, a Fuel Poverty Strategy will be launched to address some of the key issues and steps to address them.

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_2 emissions. Reducing utility costs and minimising the environmental impacts of estates and travel are two ongoing focus areas for the Kent public sector.

36% of Kent's CO_2 emissions are attributable to the industrial and commercial sector. There continue to be opportunities to work with Kent and Medway businesses to help them save money whilst reducing CO_2 emissions. Work is already underway through the Steps to Environmental Management scheme (STEM) for example, to date 525 businesses have been supported 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.*

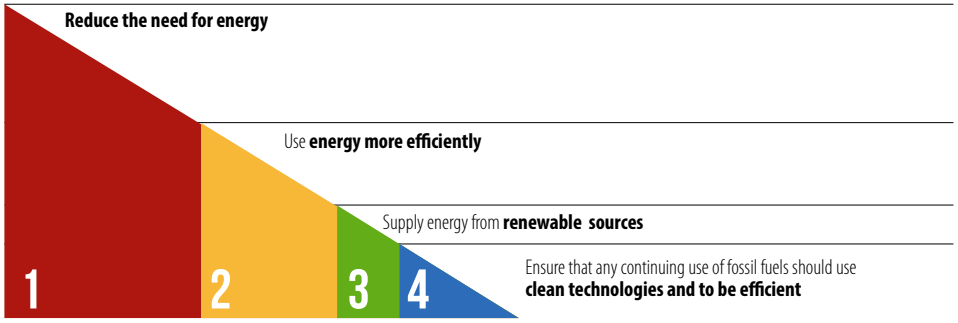


Figure 5: The energy hierarchy highlights the need to first reduce the need for energy and to then implement resource efficiency measures

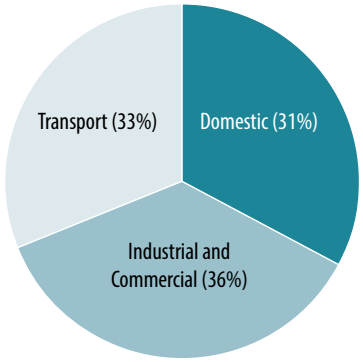


Figure 6: Proportion of CO_2 emissions per sector across the county; source: the Department of Energy and Climate Change (DECC)

Transport and accessibility

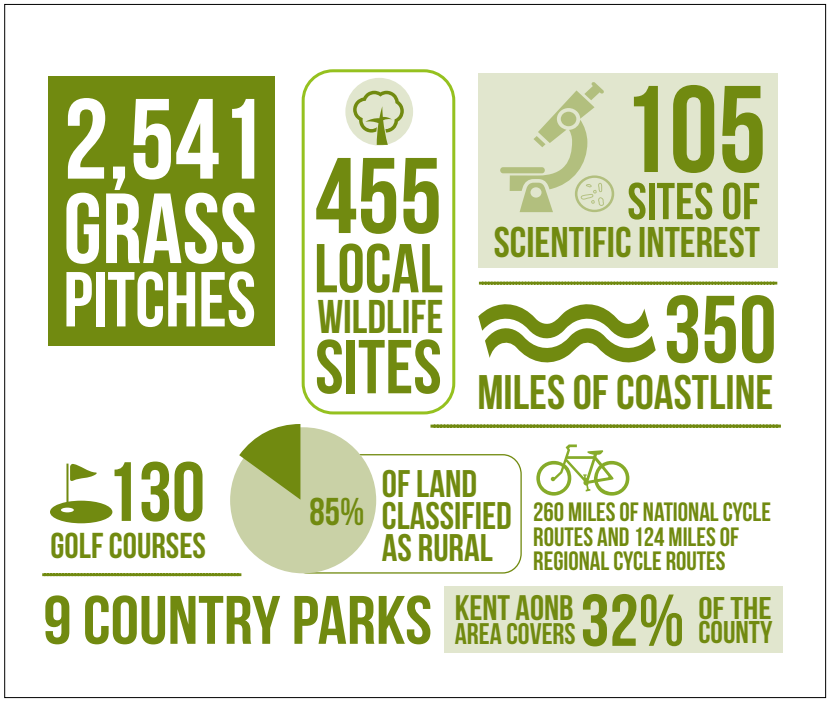
Transport has both positive and negative impacts on people's health and the environment. It is vital for providing access to facilities and services, connecting businesses and communities and reducing social isolation. However, road transport contributes to a third of Kent's CO_2 emissions and pollutants have negative effects on air quality in addition to noise, and consequently on human health and the natural environment.

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 issues, the statutory Local Transport Plan (LTP4 due 2016) and other plans and strategies, such as the Countryside and Access Improvement Plan and the emerging Active Travel Strategy include a number of options for reducing congestion and the negative impacts of traffic through sustainable and active travel options. Explore Kent for example is one initiative that aims to increase active recreation in Kent's natural environment.

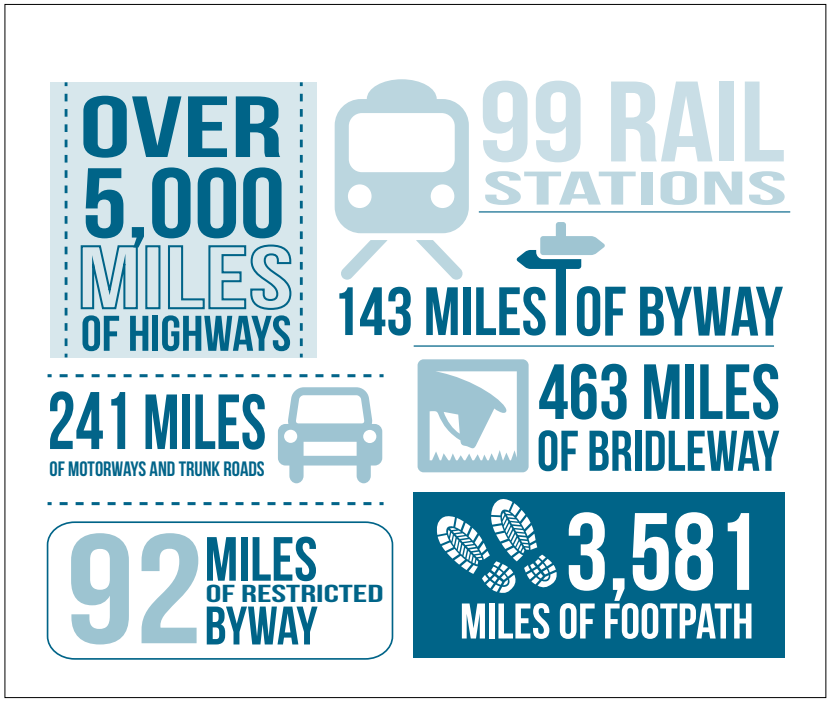
Kent is fortunate to have a vast network of Public Rights of Way and open green space, including an array of country parks, open access land, Kent Downs Area of Outstanding Natural Beauty (AONB) as well as some of the High Weald AONB. The continued protection and enhancement of these assets and supporting plans, such as the statutory AONB Management Plans, ensures our communities and businesses continue to benefit from the many resources and opportunities provided. There is also a network of national and regional cycle routes across Kent, some 270 miles of which is promoted through Explore Kent. These networks are in addition to those along roadsides.

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***

GREEN INFRASTRUCTURE ACROSS THE COUNTY



TRANSPORT ROUTES ACROSS THE COUNTY



THEME 2 MAKING BEST USE OF EXISTING RESOURCES, AVOIDING OR MINIMISING NEGATIVE IMPACTS

PRIORITIES

5
CONSERVE AND ENHANCE THE QUALITY AND SUPPLY OF THE COUNTY OF KENT'S NATURAL AND HISTORICAL RESOURCES AND ASSETS

6
IMPROVE OUR RESOURCE EFFICIENCY SUCH AS ENERGY, WATER AND LAND

7
SUPPORT SUSTAINABLE ACCESS AND CONNECTIVITY FOR BUSINESSES AND COMMUNITIES

SUB-PRIORITIES

5.1
Establish a coherent, landscape-led approach to decision making through identification of the natural and historic features that underpin landscape character and a strategic approach to assessment of character and trends in landscape condition

6.1
Reduce negative impacts and maximise the resource efficiency of public sector services, setting out our public commitments for energy, waste and water use reduction

7.1
Develop an integrated approach to sustainable access to our countryside, heritage and coast, supporting Kent's economy and improving health outcomes through outdoor sport and leisure opportunities

5.2
Improve and increase functional habitat networks on land and in the sea, identifying opportunities and protecting and enhancing our natural and historic environment and landscape character through planning and decision making

6.2
Improve the resource efficiency of our homes, reducing costs, tackling fuel poverty and improving health outcomes

7.2
Support our residents, businesses and communities in being well connected to services, with sustainable and active travel options

5.3
Identify and take forward opportunities for sustainable water management to improve quality and quantity of our water environment and resources

6.3
Work with businesses to reduce costs and negative impacts through improving compliance, efficiency, resilience and innovation in the use of resources

7.3
Promote smarter working practices to improve efficiency and deliver health and economic benefits through reduced travel

5.4
Establish land-use management approaches that create, preserve and enhance healthy, viable soils and respect landscape character

5.5
Develop heritage strategies to improve understanding and management of the historic environment

Delivery of activity against these priorities along with associated leads and timelines will be detailed in the Implementation Plan

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_2 emissions. An estimated 8.8% and 9.8% of households in Kent and Medway are in fuel poverty. An estimated 8.8% of households in Kent and 9.8% of those in Medway are in fuel poverty. Both areas have rising levels of fuel poverty meaning those residents will find it 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_2 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 1,458 insulation measures have been installed in over 1,400 homes.

Reference:
www.kent.gov.uk/warmhomes

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.

Reference: http://jambusterstpms.co.uk/x.jsp?ano=1

These estimates are based on the Low Income High Cost (LIHC) model
* These estimates are based on the Low Income High Cost (LIHC) model

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.

Reference: http://www.our-land.co.uk/

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 competiveness.

Supporting businesses to be more energy and resource efficient means they are saving money and reducing their CO_2 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_2 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.

Reference: https://www.lowcarbonkent.com/

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, impacts and opportunities from environmental and climate change, whilst delivering wider economic and health opportunities.

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. Noise pollution is a key concern for many residents and businesses in relation to major transport infrastructure, along with the impacts of growth on our natural and cultural assets. Decisions on development and infrastructure need to consider and integrate such requirements and concerns.

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, which also includes farmland and local food production, 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. Similarly, there is a need and opportunity to support the development of a low carbon and sustainable rural economy through building resilience to environmental change, sustainable intensification of food production, and supporting the diversification of our sources of energy. It is an important sector for the county not only in terms of employment, with an estimated 14,000 people directly employed in agriculture and horticulture, but in the positive benefits it affords to the health of Kent's residents, communities and environment through production and supply of food and natural resources and recreational access.

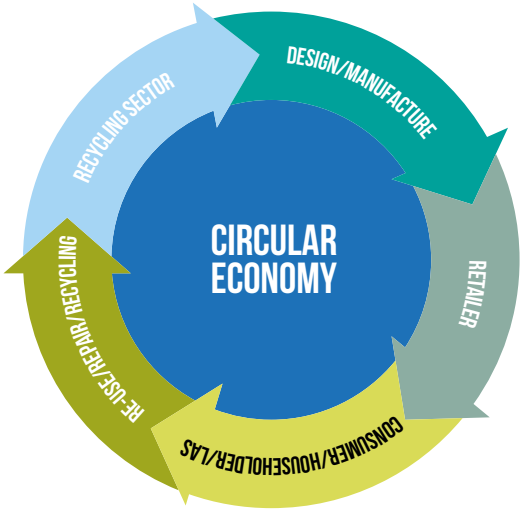
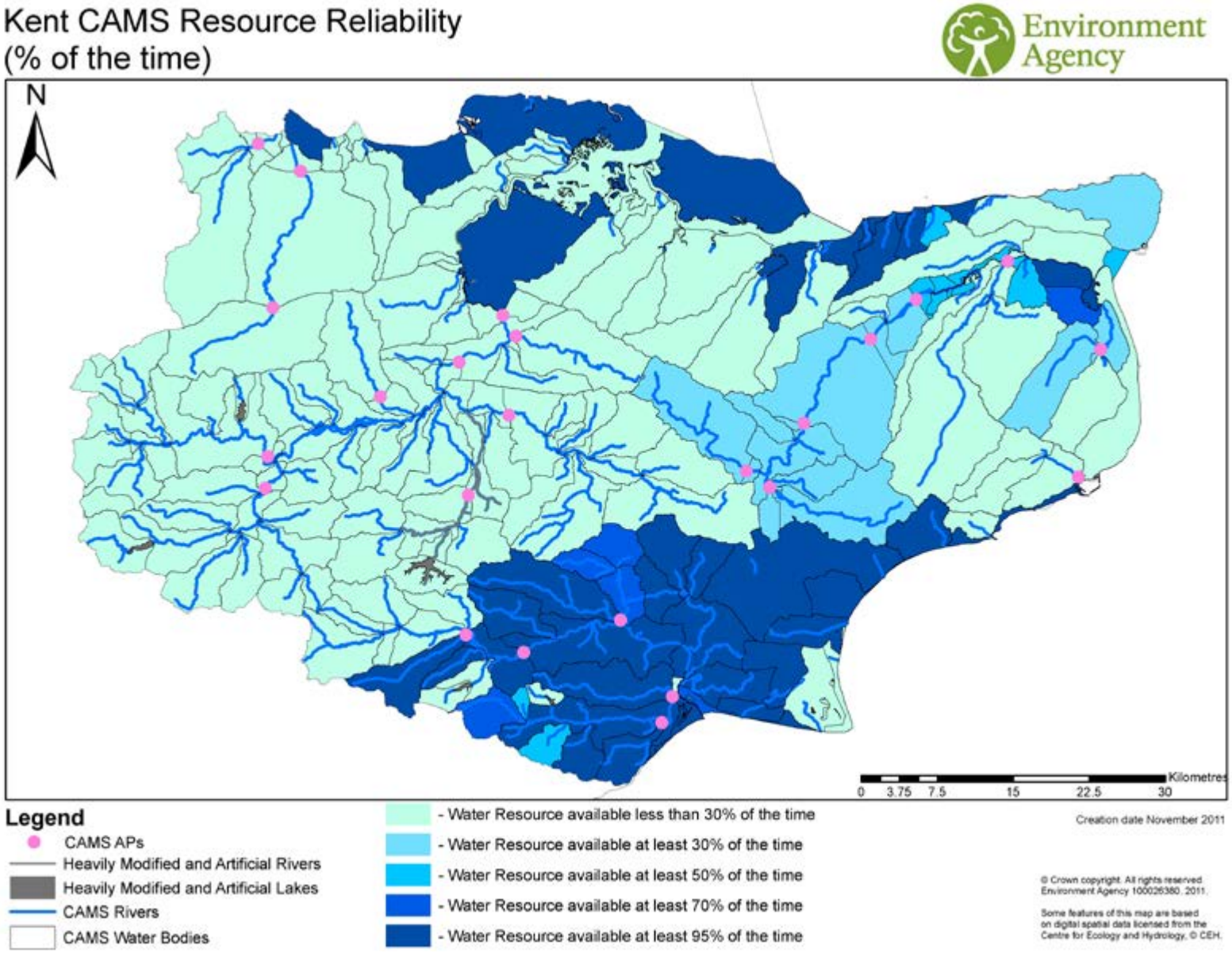


Figure 7: Water resource availability across the county as derived from Catchment Abstraction Management Strategies (CAMS)



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[3] and the European Commission's roadmap toward a resource efficient Europe[4]. 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, agriculture 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. Through the Joint Strategic Needs Assessment, a review of the impacts of climate change and severe weather on health and social care was undertaken. This highlighted the implications on mortality and morbidity and impacts on health and social care service delivery. With an ageing population, vulnerability to severe weather increases leading to a greater demand for services at a time of decreasing resources. Ensuring we plan accordingly will reduce risks and identify opportunities for improved working across organisations. 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.

[3] www.gov.uk/government/uploads/system/uploads/attachment_data/file/265022/pb14091-waste-prevention-20131211.pdf
[4] 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

8	9	10
INFLUENCE FUTURE SUSTAINABLE GROWTH FOR THE COUNTY OF KENT	IMPROVE THE COUNTY OF KENT'S ENVIRONMENTAL, SOCIAL AND ECONOMIC RESILIENCE TO ENVIRONMENTAL CHANGE	SUPPORTING GROWTH IN THE ECONOMY WITH A FOCUS ON LOW CARBON, ENVIRONMENTAL SERVICES AND RURAL SECTORS

SUB-PRIORITIES

8.1 Ensure that key environmental risks such as flooding, water scarcity and heat are informing policy decisions and development	**9.1** Increase awareness of the impacts of severe weather and environmental change and empower businesses and communities to build resilience	**10.1** Support business innovation, smart technologies and development of the circular economy to deliver economic growth
8.2 Mitigate the impacts and address the ambitions identified through the Growth and Infrastructure Framework and local plans, such as sustainable and alternative transport options, green infrastructure, energy, water and flooding	**9.2** Ensure that public sector services have assessed key environment and severe weather risks and opportunities and are taking action accordingly	**10.2** Support rural sector businesses to grow and develop sustainably, promoting low carbon technologies and practices, supporting products benefitting landscape quality and building resilience to environmental change
8.3 Develop guidance and support to enable sustainable growth protecting the county of Kent's environmental and historic assets, and supporting healthy, prosperous communities	**9.3** Improve water management and build flood resilience, maximising opportunities to deliver multiple benefits for our environment and residents into the future	**10.3** Support skills development to facilitate growth
	9.4 Build resilience to the impacts of environmental change, disease and invasive species on plant and animal health	**10.4** Widely promote the county of Kent as the place for low carbon and environmental businesses

Delivery of activity against these priorities along with associated leads and timelines will be detailed in the Implementation Plan

SUPPORTING OUTCOMES AND INDICATORS:

EVIDENCE TO ACTION: THEME THREE CASE STUDIES

EVIDENCE BASE

ACTIONS/ACTIVITIES

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.

Reference: http://healthsustainabilityplanning.co.uk/

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.

Reference: http://www.kent.gov.uk/waste-planning-and-land/flooding-and-drainage/sustainable-drainage-systems

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, an Ash Outbreak Strategic Co-ordination Group was established, led by the Kent Resilience Forum and bringing together partners such as Kent Downs AONB, 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.

Reference: http://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planning-policies/countryside-policies-and-reports/managing-ash-dieback-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.

OUR INDICATORS ON A PAGE

ENERGY

TARGETS

- We will reduce our emissions across the county by 34% by 2020 from a 2012 baseline (2.6% per year)
- More than 15% of 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
- Reduce the number of properties at risk from flooding
- 28 Kent and Medway water bodies will be at good status by 2021.

These targets are under review, for example revised Water Framework Directive (WFD) targets are being considered and will likely reflect the revised River Basement Management Plan due later in 2015.

INDICATORS

- Household water use
- Number of properties protected from new flooding schemes
- 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

- A minimum of 65% of local wildlife sites will be in positive management and 95% of SSSIs will be in favourable recovery 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 specifies in Kent and Medway are quantified
- We will have completed a natural capital assessment for Kent by 2017
- Heritage assets at risk quantified and identified

INDICATORS

- Percentage wildlife sites in positive conservation management
- Extent of priority habitats
- 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

Targets are under review, they will initially focus on monitoring modal shift to sustainable and active travel options.

INDICATORS

- School and business travel survey data
- Rail station footfall
- Traffic counts
- Bus usage and smarter challenge survey

RESILIENCE

TARGETS

- 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

Further targets are under review and will incorporate business and community resilience.

INDICATORS

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

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

These targets are currently under review and will form part of the Kent Environment Strategy Implementation Plan

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 (align with the Kent and Medway Air Quality Partnership and national monitoring standards)
- We will work to reduce the noise exposure from road, rail and other transport

Targets are under review and will take into consideration recommendations made through the Joint Strategic Needs Assessment

INDICATORS

- Road, rail and transport exposure during day and night time
- 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

Targets and indicators are currently under review and might also consider litter.

Some of the targets adopted for the 2015 Kent Environment Strategy were developed and agreed as part of Climate Local Kent in 2012. A number of these targets are under review whilst others are being developed which will form activity under the KES Implementation Plan.

GLOSSARY

Term	Definition
Active travel	Travel and transport by physically active modes of transport such as cycling and walking.
Air quality	The composition of the air in terms of how much pollution it contains, see http://www.kentair.org.uk/ for further details
AONB	Area of Outstanding Natural Beauty
Biodiversity	As defined in the Defra Biodiversity Strategy 2020, biodiversity is the diversity, or variety, of plants, animals and other living things in a particular area or region. It encompasses habitat diversity, species diversity and genetic diversity
Catchment area	The area drained by a river or body of water
Circular economy	A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.
Climate change	Climate change refers to a large-scale, long-term shift in the planet's weather patterns or average temperatures. See the UK Met Office's climate guide (http://www.metoffice.gov.uk/climate-guide) for further information.
Energy Company Obligation (ECO)	The Energy Company Obligation (ECO) is a government scheme to obligate larger suppliers to deliver energy efficiency measures to domestic premises in Britain. See https://www.ofgem.gov.uk/ for further information.

Term	Definition
Fuel poverty	Fuel poverty in England is measured by the Low Income High Costs definition, which considers a household to be in fuel poverty if: • they have required fuel costs that are above average (the national median level) • were they to spend that amount they would be left with a residual income below the official poverty line See the UK Gov website for further details: https://www.gov.uk/government/collections/fuel-poverty-statistics
Green infrastructure	Green infrastructure is a network of multi-functional green space, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities (PPS12)
Greenhouse gases	As defined under the Kyoto Protocol, these include: • Carbon dioxide (CO_2); • Methane (CH_4); • Nitrous oxide (N_2O); • Hydrofluorocarbons (HFCs); • Perfluorocarbons (PFC_s); and • Sulphur hexafluoride (SF_6).
Horticulture	The science, technology and business of cultivation of flowers, fruits, vegetables and ornamental plants. It can also include plant conservation, landscape restoration and landscape and garden design.
ISO 14001	International Organization for Standardization (ISO) 14001 is a core set of standards used by organizations globally for designing and implementing an effective Environmental Management System (EMS). There are many other standards under ISO which include: ISO 9001 for quality management and ISO 50001 for energy management.

Term	Definition
Joint Strategic Needs Assessment (JSNA)	The Local Government and Public Involvement in Health Act 2007 requires PCTs and local authorities to produce a Joint Strategic Needs Assessment (JSNA) of the health and wellbeing of their local community. They identify the key issues affecting health and wellbeing of local people, both now and into the future.
Landscape	Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors. (European Landscape Convention, 2000)
Morbidity	Morbidity is a diseased condition or state, as opposed to mortality rate which is a measure of number of deaths
National Planning Policy Framework (NPPF)	The National Planning Policy Framework sets out government's planning policies for England and how these are expected to be applied. It provides guidance for local planning authorities and decision-takers, both in drawing up plans and making decisions about planning applications.
Natural environment	The Defra Natural Environment White Paper (NEWP) *The Natural Choice: securing the value of nature* (2011) provides the following definition. The natural environment covers living things in all their diversity: wildlife, rivers and streams, lakes and seas, urban green space and open countryside, forests and farmed land. It includes the fundamentals of human survival: our food, fuel, air and water, together with the natural systems that cycle our water, clean out pollutants, produce healthy soil, protect us from floods and regulate our climate. And it embraces our landscapes and our natural heritage, the many types of contact we have with nature in both town and country.
Resilience	This is defined as the capacity to recover quickly from difficulties
Small and medium enterprises (SMEs)	The category of SMEs is defined by the European Commission as including micro, small and medium-sized enterprises who employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro.

Term	Definition
Surface water flooding	Surface water flooding occurs when heavy rainfall exceeds the capacity of the ground and local drainage network to absorb it. This can lead to water flowing across the ground and ponding in low-lying areas, which may be a long way downstream and it may not be obvious that one area is contributing to flooding elsewhere. This sort of flooding is typically caused by short, intense rainfall.
Sustainable agricultural intensification	This relates to sustainable increased food production which would include use and application of new technologies, systems and integrated management practices. A more in depth definition can be found through *Feeding the Future: Innovation Requirements for Primary Food Production in the UK to 2030:* http://feedingthefuture.info/report-launch/
Sustainable development	The National Planning Policy Framework definition of sustainable development is: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is central to the economic, environmental and social success of the country and is the core principle underpinning planning.
Sustainable drainage systems (SuDS)	Sustainable drainage systems (SuDS) are a material consideration requirement in planning decisions as documented in the NPPF. SuDS aim to manage rain water runoff in a natural way by replicating natural processes. Examples include: green roofs; soakaways; ponds; wetlands; shallow ditches or swales, and permeable pavement and underground storage.
Viticulture	The science, production and study of grapes.

KENT ENVIRONMENT STRATEGY

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