

People in Essex experience a high quality and sustainable environment

**Essex County Council Commissioning Strategy
2014 to 2018**

Version: consultation draft



Essex County Council

Ownership and responsibilities

Roles and responsibilities

Lead commissioner(s):	Peter Kelsbie Mike Gogarty	
Supporting Commissioner(s):	Paul Bird Jason Searles Deborah Fox	Highways Integrated Waste Management Sustainable Essex: Protection
Cabinet Member (s)	Cllr Roger Walters (Lead) Cllr Rodney Bass & Cllr John Jowers (Supporting Cabinet Members)	
Other key contacts:	Matthew Brown – Commissioning Support Manager	

Version control

Version number	Date	Author	Comment & nature of update
0.1	February 2014	Peter Kelsbie	Initial draft
0.2	17.02.14	Nicole North / Matthew Brown	Consolidation of indicator level information Addition of draft risk and finance info.
0.3	20.02.14	Nicole North / Matthew Brown	Changes to story behind the baseline slides.
0.4	10.03.14	Nicole North / Matthew Brown	Incorporation of subject matter expert comments (operational)
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0.6	11.04.14	Deborah Fox	Incorporation of feedback from workshop with heads of Place commissioning. Plus meetings with People commissioners - Public Health and Wellbeing/ Active Essex; Visit Essex; and meetings with Place service leads
0.7	22.04.14	Chris Carpenter	Incorporation of Cllr Walters comments.
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0.10	09.05.14	Deborah Fox / Peter Kelsbie / Jason Searles / Chris Stevenson/ Matthew Brown / Nicole North	Incorporation of feedback
0.11 (CCB)	19.05.14	Nicole North / Matthew Brown/ Deborah Fox	Incorporation of feedback
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0.14 (PPC)	24.06.14	Nicole North / Matthew Brown/ Daniel Baker	Updated for public & partner consultation

People in Essex experience a high quality and sustainable environment

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Pages 4 and 5	Outline why it is important to ECC that People in Essex experience a high quality and sustainable environment.
Page 8 to 10	Sets out the views, opinions and preferences of Essex residents, specific service users and wider national opinion polls of issues relating to a sustainable environment.
Pages 12 to 46	<p>Outline the current position in Essex regarding a sustainable environment. This provides a strategic overview of past, current and future anticipated trends; the policy context in which this sits and an overview of current activity. These pages also articulate our ambition for a high quality and sustainable environment. In doing so it articulates the 'curve that we will turn' against our 7 indicators and paints a picture of what will be different in the short, medium and longer term. The issues that we will need to address, either alone or working with partners, are addressed here. This information is presented by indicator:</p> <ul style="list-style-type: none">• Residual Waste Volumes – page 12• Cost of Energy to Households - page 16• Preventable Flooding Incidents – page 20• Level of pollution – page 25• Condition of roads and footways - page 29• Access to valuable open spaces – page 38• Perception of the quality of the environment - page 43.
Page 47	Identifies who are the partners ECC will need to work with in order to achieve a sustainable environment. In doing so it highlights the roles that different partners will have to play and how we will work with each of these partners.
Pages 48 to 52	Provides details of the strategic actions which ECC will commission in order to achieve this outcome. Associated high level timescales and resources are provided here.
Pages 53 to 57	Provides details of the financial envelope within which this strategy will be delivered. The key risks to the delivery of the strategy are also captured here.

People in Essex experience a high quality and sustainable environment

In February 2014 Essex County Council (ECC) adopted a new Corporate Outcomes Framework – a statement of ambition setting out the seven outcomes that would guide its activity to 2018. This Commissioning Strategy sets out ECC's strategy for securing progress towards one of these outcomes "People in Essex experience a high quality and sustainable environment". It is an expression of how ECC Commissioners will use resources, capacity and capability within ECC, across partners and through the provider market.

Essex County Council is committed to ensuring a better quality of life by conserving, developing and promoting a healthy, safe, diverse, clean and attractive environment. In order to do this, the Commissioning Strategy sets out how we will act – either directly through our commissioning decisions or indirectly through working with our partners to influence, lobby and lead communities to ensure that people in Essex experience a high quality and sustainable environment.

- ❖ **Lead by example** - We recognise that our operations and statutory duties have an impact on the environment and as an organisation we have a responsibility to manage and mitigate these impacts where possible. In working towards a more sustainable future we are committed to minimising our adverse impacts and maximising the positive impacts on our environment including utilising our estate in the most effective and sustainable way.
- ❖ **Collaborate** - We recognise that we cannot achieve this outcome by ourselves. Partners in the public, private and voluntary sector will all be key. Be that in a delivery capacity, in developing solutions, by lobbying for the right legislative freedoms for Essex or by creating an environment in which others - be they local businesses or local communities - can innovate.
- ❖ **Quick wins and longer term solutions** – We recognise that to fully realise this outcome some of the actions we take will have a medium to longer term payback eg. initiatives that require large scale infrastructure. However, these will be interspersed with actions that will have immediate impacts on Essex residents.
- ❖ **Innovate** - Within a challenging financial envelope we must blend the best of current practice with the development of new innovative approaches. We will look at fundraising in a more strategic way, and services should cover more of their costs where practicable.
- ❖ **Preventative and early intervention** - This strategy takes a preventative approach where possible to ensure that issues are addressed before they become a demand drain on ECC or other public services.
- ❖ **Empowering communities to create cleaner, greener neighbourhoods** - All Essex residents will also have a role to play in understanding their own impact on the environment and taking actions accordingly.
- ❖ **Realistic and deliverable** - We will consider all funding mechanisms and opportunities to achieve this outcome and promote the multiple benefits from these resources, but must recognise that we are operating within a reduced financial envelope.
- ❖ **A learning organisation** - We will continue to monitor and evaluate transformational activity and pilot at a localised level where appropriate.

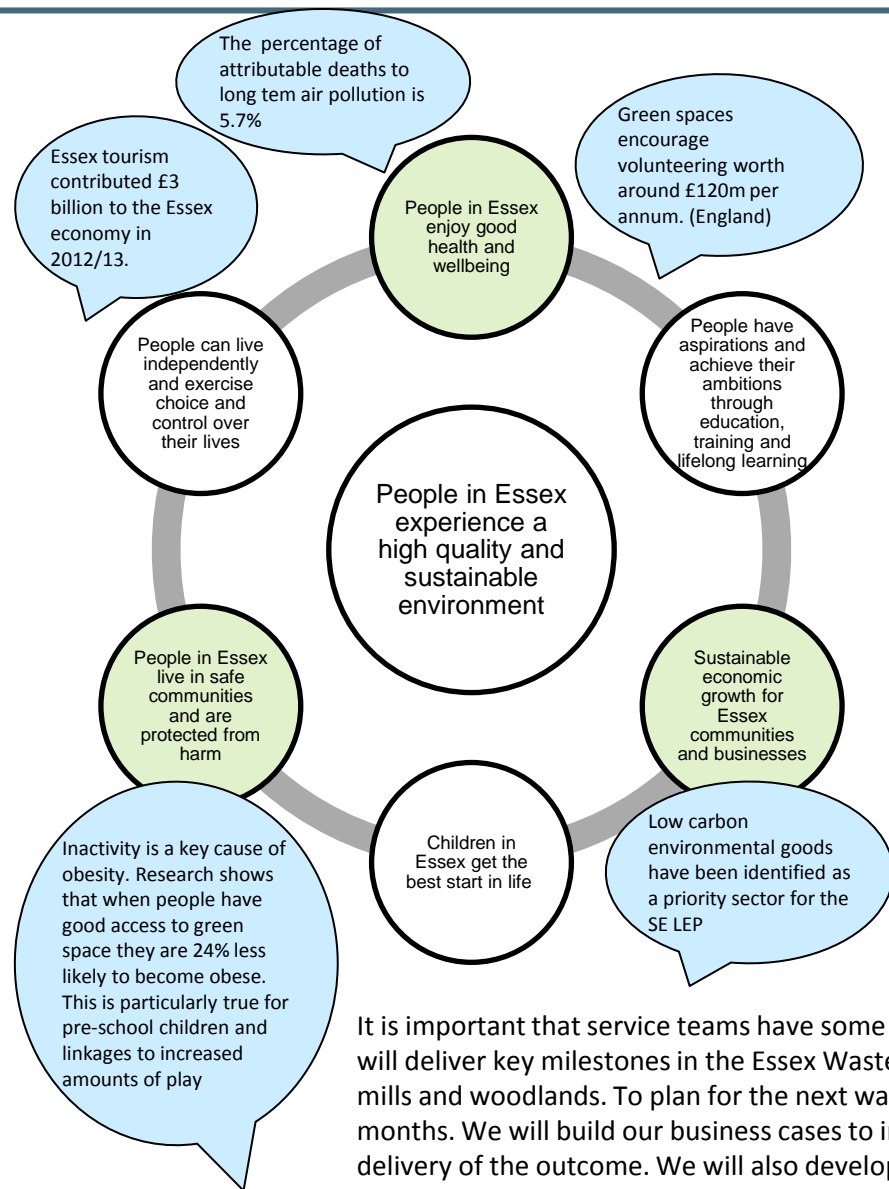
A set of 7 supporting indicators will help quantify the achievement of our outcome. These are interconnected and supportive:

• Residual Waste Volumes	• Cost of Energy to Households	• Preventable Flooding Incidents	• Access to Valuable Open Spaces
• Condition of Roads and Footways	• Level of Pollution	• Perception of the quality of the environment in Essex's cities, towns and villages	

The achievement of a sustainable and quality environment is interlinked to our other outcomes, and is expanded on throughout this strategy.

The policy context in which this outcome for Essex sits is complex and continually evolving. Legislation at a European and UK level sets much of the context in which our local approach to waste, energy, pollution and flood risk is set. As such our strategy sets out how we will continue to influence this to the benefit of Essex whenever possible. However, within this there is still a great deal of scope within the legislative and policy context for innovation to meet the specific challenges and opportunities facing Essex.

People in Essex experience a high quality and sustainable environment



This strategy aims to draw out areas of mutual benefit across Essex County Councils 7 outcomes. In doing so it also highlights potential tensions that we need to be alert and mindful to in our future planning.

The scope for delivery is shared with a range of partners including other local authorities, risk management authorities and established partnerships. We have a real opportunity to lead by example.

The high quality and sustainable environment evidence base requires significant long-term development in a number of key areas. This will be important as some actions will require infrastructure investments which have long term pay back periods.

All Essex residents experience our waste, highway and environment services. Collectively, they are a highly visible barometer of how the council is doing. Individually, it is easy to target these services for year-on-year savings. Sometimes they may seem like a barrier to development. Increasingly however, we understand them to be key to economic growth and improving public health. To attract high-end businesses and build our visitor economy, we will need to invest in waste disposal, energy provision and management of open spaces. Families and businesses will want to re-locate to Essex and grow our GVA if our places are attractive. Properties and businesses will need to be protected from flooding. Households will want to pay a reasonable price for their energy supply, which implies new energy facilities. People want a clean environment, free of pollution. Existing residents already appreciate what is on offer. Young families discover the benefits of our country parks together. People use our public rights of way network to get to work and enjoy their leisure time. To get inactive people into our open spaces for moderate activity however, we will need to make places more accessible.

It is important that service teams have some certainty. Services will deliver existing objectives, including those in delivery transition. We will deliver key milestones in the Essex Waste Management Strategy 2007-2032 and the ongoing green asset review of country parks, mills and woodlands. To plan for the next wave of change, we will bring data up to date and refresh some strategies over the next 12-18 months. We will build our business cases to invest in waste, energy, flood and green infrastructure. We will build partnerships critical to delivery of the outcome. We will also develop fundraising and marketing strategies to re-position some services. Through this activity we will have a better idea of a realistic curve to turn within the financial envelope. In the medium to long term we will find new innovative means of delivery on multiple outcomes. We will stop attempting to constrain value and utilise our assets in the best way we can.

Prioritisation within the financial envelope

Slides 48-50 in this Strategy detail the budget position for this outcome. However Commissioners have further been challenged to explain and provide an indication of priorities, in order to give an understanding of the impacts of a reducing financial envelope.

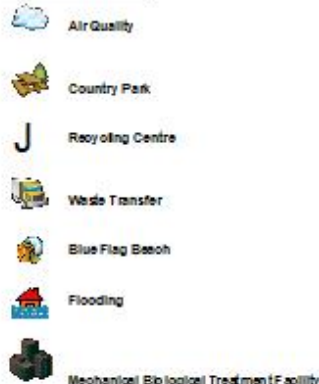
We will:

- ❖ **Address financial priorities** - We should not assume that the 10% or 20% reduction would be applied equally across the waste and environment theme. The most significant costs and the priorities within this outcome fall within the Waste and Condition of Footways indicators, however these are largely statutory and have funding tied up in longer-term contracts. Savings will naturally come from the further priorities defined below, and furthermore some services associated with this outcome are on track to become self-sustaining. Other indicators have near zero budget and will rely on partnership, influencing and lobbying.
- ❖ **Discharge our statutory responsibilities** - We recognise that this must be our first priority. We expect delivery to be done in a more joined-up way across Place indicators; and across Place and People outcomes. Further work is being done to clearly map our statutory responsibilities to assist decision-making in prioritising services to be commissioned.
- ❖ **Think beyond existing services** - We should not be thinking in terms of our individual services. Instead, we should commission 'environmentally' across the indicators. This means greater reliance on working in new ways with and influencing key stakeholders and partners, which include parish councils and community groups; moving towards greater community self-serve and driving community capacity building.
- ❖ **Recognise what we won't do in the future** - We will stop doing things that do not fit this commissioning strategy. We also know that we don't have the capital funding available to make substantial changes on some of the indicators e.g. levels of pollution. We will thus need to raise awareness, understanding and knowledge of community, public and private sector roles, responsibilities and risks. We will also use our influence and lobby more.
- ❖ **Look at funding and fundraising in a more strategic way** - We will develop a fundraising strategy to achieve the outcome. We will use it to explore innovative funding solutions. For public and private sector partners to invest time or funds, a reasonable certainty of a return on investment will need to be required, so we would need to undertake a review or analysis to clearly align the outcomes, cost and benefits to be shared between participating parties for the activities being proposed. Services should cover more of their costs where practicable.
- ❖ **Make the best use of existing assets** - We will utilise our estate in the most effective and sustainable way in the longer term.
- ❖ **Target** - We will apply our approaches in localities where there is greatest need. While some of our arrangements are fixed, such as waste disposal, other areas of commissioning are more flexible and so interventions can be applied where they will have the greatest impact.
- ❖ **Pilot and test** - There is opportunity to use innovation and to trial pilot approaches before broadening them to our universal services.

An illustrative map of some of the issues and assets that impact on achieving the outcome

A literature review suggests that environmental 'goods' and 'bads' are unequally distributed through society with the poorest suffering from more of the 'bads' and benefitting from less of the 'goods'. This reinforces the approach taken by this strategy to adopt a local targeted approach to ensure that where appropriate our actions are targeted where they will have the greatest impact. Our strategic actions capture the need to undertake further mapping work to understand the Essex environment and local opportunities, assets and population needs.

Environmental site type



Essex Economic Growth Corridors

Significant health issues for the district



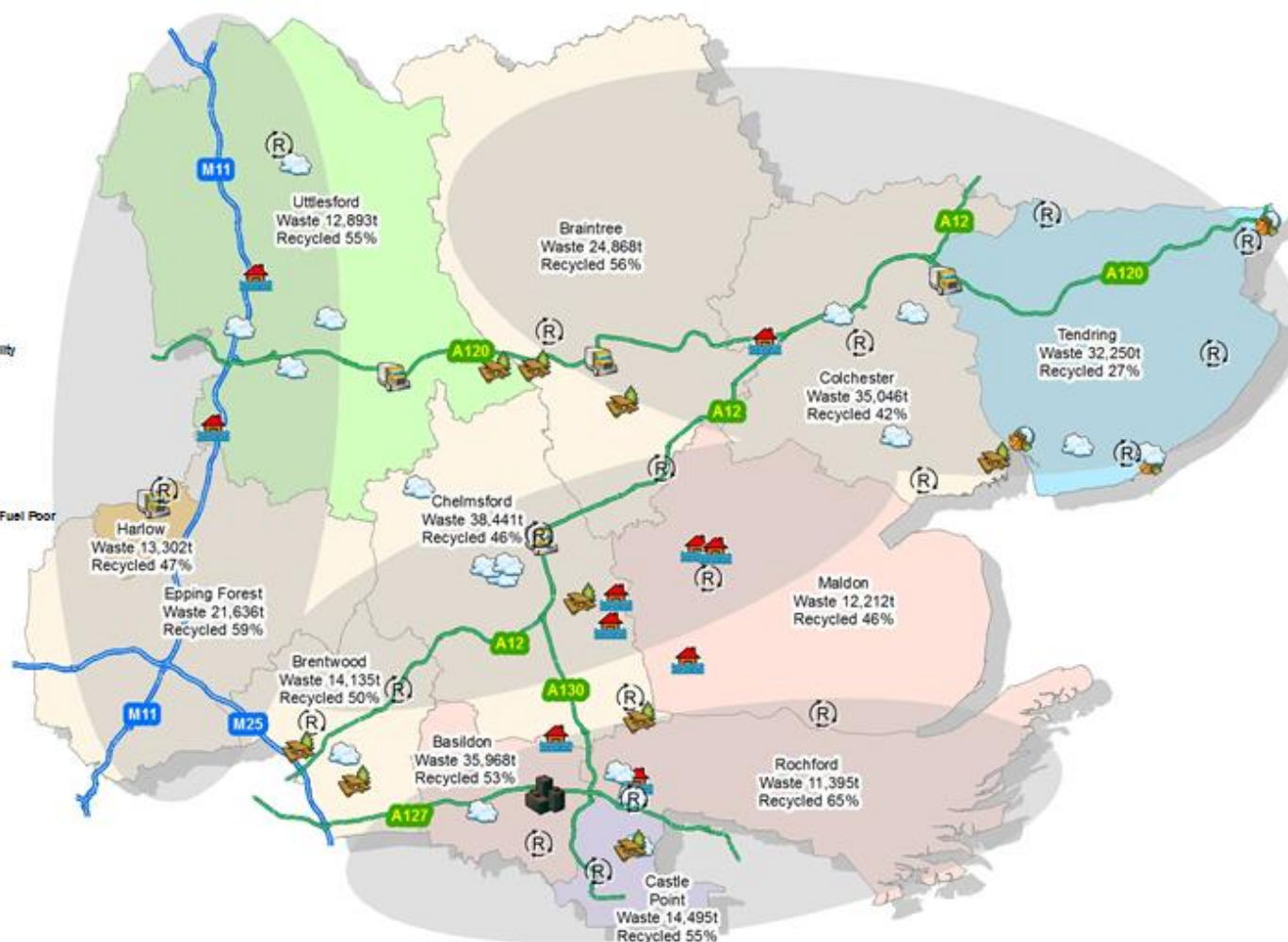
Waste:

Household waste to landfill (Tonnes)

Recycled:

Total recycled or composted (%)

(Data from 2013/14)



What do Essex residents and service users think of issues relating to a sustainable environment? (1)

Despite the fact that the majority of services that contribute to the achievement of this outcome are universal we have significant gaps in our understanding of the views of Essex residents about the environment and the indicators that contribute to it.

Nationally, the ‘environment’ lags behind other issues when residents are asked what are the most important issues facing Britain today. When asked to think about how concern for the environment will develop over the next twenty years, the majority of respondents feel that there will be a lot more concern for the environment. However, the latest polling information from YouGov (Feb 2014) highlights the volatility of public opinion with those thinking the environment is the most important issue facing the country rising from 9% to 23%, coinciding with widespread flooding in many parts of the UK.

Energy security is the leading environmental issue for Britons – twice as many regard this as an important issue than do climate change. Half of Britons (50%) feel that future energy supplies and sources is one of the most important environmental issues facing the nation. Other leading issues are waste management (48%) and overpopulation (41%).

Following a poll conducted across 24 nations, analysis suggests that Britain is:

- one of the most concerned about energy security, waste management and overpopulation;
- one of the least concerned about climate change, air pollution, the depletion of natural resources, water pollution, deforestation, and drinking water; and
- typical of the international community in its concern about wildlife conservation, emissions, flooding and future food supplies/sources.

In Essex, levels of pollution, parks and open spaces, access to nature and clean streets all factor in making Essex a good place to live – to varying degrees.

Local polling conducted in 2002 asked people to identify what they liked most about living in their local areas and of the 60% that identified environmental factors, the breakdown was as follows (table 1). All residents were then asked “What would improve your quality of life in this area?” - the percentage of residents identifying environmental concerns is outlined below (table 2).

Table 1

Best thing about living in your area	% of residents
Environment	60
Peaceful/quiet	42
The countryside	28
Sea/coast/beaches	8
Clean air	6
Good/more parks/open spaces	6
Good street cleaning/less litter	3
Good recycling facilities	1

Table 2

What would improve your quality of life	% of residents
Environment	11
Better street cleaning/ less litter	7
Better recycling facilities	2
Better protection of the countryside	1
Better protection of coast/beaches	1
Cleaner air/less pollution	1
Reducing amount of dog mess	1
Better/more parks/open spaces	1

What do Essex residents and service users think of issues relating to a sustainable environment? (2)

The 2013 Tracker Survey showed that 81% of residents are satisfied with their local area as a place to live, although results vary widely across the county. Over the coming years we need to develop a more detailed and localised understanding of the views of Essex residents towards services relating to the environment and how this contributes to overall satisfaction with the local area. In addition we need to better understand resident motivations in some of the choices they make and the impact that this has upon the achievement of this outcome. This includes what motivates or discourages residents from using Essex green spaces; what affects Essex households and businesses in relation to energy consumption; recycling and waste disposal behaviour; and what residents judge to be the key issues that contribute to a high quality environment in urban and rural areas. Polling in 2003 and 2004 revealed that 45% of respondents feel that they are already doing as much as they can to help the environment. However, lack of knowledge may be an issue – with over a quarter (27%) of respondents not knowing what more they could be doing to help the local environment. A further 26% say that they do not have enough spare time to act on their environmental concerns.

Indicator	Customer satisfaction and views
Residual Waste Volumes	Public opinion regarding waste tends to focus upon satisfaction with approach taken to waste collection and not the county councils responsibility relating to waste disposal. The 2010 ECC Tracker Survey showed that 90.8% of Essex residents indicated that they already recycle as much as possible. 80% of respondents to the tracker survey were satisfied with household waste recycling centres.
Cost of Energy to Households	National polling suggests that people are concerned about energy security and the UK becoming too dependent on a) importing energy, b) fossil fuels running out and c) electricity remaining affordable. Half of Britons (50%) feel that future energy supplies and sources is one of the most important environmental issues facing the nation. (Ipsos Mori)
Preventable Flooding Incidents	Focus groups and telephone surveys were undertaken in early 2013 with residents in Basildon, Castle Point and Rochford. The research found that: residents are not particularly concerned about flooding in their area but perceive it might get worse in the future; living in an area of flood risk is seen as undesirable; there needs to be greater communications about who is responsible for the risk of flooding; and a mix of media should be used to inform residents about flooding and water management. Negative perception usually follows a high profile flood incident.
Condition of roads and footways	During 2013/14 enquiries relating to carriageway defects totalled 37,883. A breakdown of enquiry by road type is as follows: <ul style="list-style-type: none"> • *Local – <u>16,701</u> (44.1% of enquires relating to 61.2% of the length of the ECC network) • *Priority Roads (PR) 1 – <u>7,612</u> (18.9% of enquires relating to 12.0% of the length of the ECC network) • *Priority Roads (PR) 2 – <u>12,410</u> (32.8% of enquires relating to 26.8% of the length of the ECC network) • Other – <u>1,610</u> • Total -<u>37,883</u> <p style="text-align: right;">*PR1 = largely A class roads, but some B, C and unclassified also; PR2 = largely B class roads but some A, C and unclassified also; Local Roads = largely unclassified but some A, B and C class also</p>
Level of Pollution	We currently hold no up-to-date information at the Essex level about resident views on pollution levels.
Valuable open spaces / Perception of the environment	The 2013 Tracker Survey showed that 75% of respondents were satisfied with parks and open spaces. This is a slight increase from 2009/10 levels of 73%. A local survey, carried out in August 2011, showed that customer satisfaction with country parks remained consistently high at 96%. In research carried out by CABI in 2011, 85% of people surveyed felt that the quality of public space and the built environment had a direct impact on their lives and on the way they feel.

What do Essex residents and service users think of issues relating to a sustainable environment? (3)

Place commissioning is about people and improving the quality of life for Essex residents through a high quality and sustainable environment. Additionally, the decisions we take as an organisation and in partnership with others, impact not only on current residents but also on future generations.

We have used a series of customer profiles to ensure that we keep the needs of Essex residents and businesses at the centre of our activity around the environment.

Meet Ben

"I've finally got a job and I'm so happy. Dad has made clear that now I'm earning I will need to contribute to the bills. He jokes that my electricity consumption playing computer games is going to bankrupt him!"



Meet Ben



Meet Claire

Meet Claire

"Raising Charlie is a handful and we want to make sure he gets the very best opportunities."

Essex has some great events for children but I don't always know when they're on."



Meet Frank

"Sue and I are settling into retired life. After almost 40 years of a daily commute to London it is taking a little time to adjust to retirement".



Meet Frank



Meet Tina

Meet Tina

"I'm not really sure what to do to keep my children entertained. They have way too much energy, but by the time I have finished work - I don't!"

People in Essex experience a high quality and sustainable environment

Essex County Council is committed to ensuring a better quality of life by conserving, developing and promoting a healthy, safe, diverse, clean and attractive environment. In order to do this, the Commissioning Strategy sets out how we will act – either directly through our commissioning decisions or indirectly through working with our partners to influence, lobby and lead communities to ensure that people in Essex experience a high quality and sustainable environment.

Indicator	Residual Waste Volumes	Cost of Energy to Households	Preventable Flooding Incidents	Access to Valuable Open Spaces	Condition of Roads and Footways	Level of Pollution	Perception of the quality of the Environment
Curve to be turned	By the end of 2015/16 the amount of waste sent to landfill will be almost zero and this will be maintained.	Protection for ECC against the expected substantial increase in energy costs across its operations.	We do not have a proxy indicator. We will put together a ‘basket’ of measures to identify the curve we need to turn.	We do not have a proxy indicator. We will put together a ‘basket’ of measures to identify the curve we need to turn.	We will achieve the best possible road and footway conditions with the resources available (targets to be determined once funding confirmed).	We do not have a proxy indicator. We will put together a ‘basket’ of measures to identify the curve we need to turn.	We do not have a proxy indicator. We will put together a ‘basket’ of measures to identify the curve we need to turn.
Cross Cutting Actions	<div><div><ul style="list-style-type: none">• Develop links across outcomes• Develop our collaborations• Market ourselves better• Re-baseline certain information• Commission a review of how we can use ‘nudge’</div><div><ul style="list-style-type: none">strategies to change behaviours• Seek to establish a series of mutually beneficial relationships with public, private, voluntary and community sector partners• Develop a fundraising and innovative funding solutions</div><div><ul style="list-style-type: none">strategy• Develop an appropriate enforcement approach</div><div>(See slide 48 for further information)</div></div>						
Strategic Actions	<div>Include:<ul style="list-style-type: none">• Implement the Joint Municipal Waste Strategy for Essex.</div> <div>See page 49</div>	<div>Include:<ul style="list-style-type: none">• Development and agreement of an Energy Commissioning Plan – spanning across the priority areas of buy better; use less and generate more.</div> <div>See pages 49-50</div>	<div>Include:<ul style="list-style-type: none">• Develop an integrated approach to flood risk management• Develop collaboration with parish councils and community groups• Maximise opportunities presented by an additional £500,000 capital / revenue investment.</div> <div>See page 51</div>	<div>Include:<ul style="list-style-type: none">• Deliver the ambition for ECC country parks to be a small net income generator by 2017.• Plan next wave of change once data is updated; strategies refreshed; and a fundraising and marketing strategy is prepared.</div> <div>See page 52</div>	<div>Include:<ul style="list-style-type: none">• Lobby Central Government to raise awareness of pressures• Explore funding sources• Communications Plan• Safety Inspections and SCANNER surveys.</div> <div>See page 51</div>	<div>Include:<ul style="list-style-type: none">• Establish an accurate picture of key pollution levels in Essex via a dashboard.• Collect and analyse data on air quality monitoring areas that have not been declared and associated actions related to transport emissions.</div> <div>See page 50</div>	<div>Include:<ul style="list-style-type: none">• Establish a balanced view and approach to monitoring perception.• Apply cross-cutting approaches including marketing ourselves better, developing our collaborations, finding innovative funding solutions and establishing mutually beneficial relationships.</div> <div>See page 48</div>

1. Residual Waste Volumes

Residual waste volumes - Strategic analysis and insight – the story behind baseline position

In 2013/14, Essex produced approximately 706,000 tonnes of Local Authority Collected Municipal Waste, the majority of which (c.95%) was household waste. Currently around 48% of our household waste is landfilled. This untreated waste releases harmful gases, which are a major factor in global warming, and produces harmful leachate which requires treatment. In 2013/14 Essex County Council paid over £24million in landfill tax; this will rise over the coming years if ECC continues to rely on landfill and levels of residual waste do not fall. The limited availability of landfill is also a key driver that will uplift landfill gate fees and the cost of transporting waste in the future.

Around 52% of waste was reused, recycled or composted in 2013/14 through a combination of kerbside collections, bring banks, charity and community led activities and the Recycling Centres for Household Waste. The Joint Municipal Waste Management Strategy (JMWMS) for Essex has an aspiration to achieve a 60% recycling rate by 2020; recognising that there will always be some waste that still needs to be disposed of.

Our approach to waste management is consistent with others, as we strive to develop systems to minimise waste and the use of landfill whilst maximising the value of what is thrown away. In 2012/13, residual household waste Essex was 503.47kg per household, compared to 529.31kg (all English county local authority average / low is good).

Social – Despite reuse and recycling initiatives valuable waste continues to be disposed of. The LGA estimate nationally approx. £435million of untapped value from household waste material (615,000 tonnes) through disposal savings and resale value.	Technological – Economic growth, changes in manufacturing and legislative changes may impact on the quantities and types of waste we deal with in the future.	Housing – A preliminary assessment of local plans suggest an annual build rate of 6,091 homes per annum, or 48,728 new homes by 2021. This will impact waste levels and in some cases the ability and propensity to recycle.
Political – waste is a highly visible service with a strong local identity, highlighted by the range of differing collection approaches and services levels adopted by the Essex Borough, City and District Councils in their role as Waste Collection Authorities (WCA).	Environmental – the landfilling of untreated waste can release harmful pollutants into the environment.	Economic - landfill is an expensive method of waste disposal. Landfill tax is £80 per tonne (and rising) , whilst the finite supply will impact on future costs. Economic growth also impacts significantly on waste as it will often lead to increasing levels of consumption and consumerism.

The EU Landfill Directive, Landfill Tax, and EU Waste Framework Directive have been reflected in national legislation and guidance (Waste Strategy for England 2011 and the Waste Prevention Programme for England) and in turn the JMWMS for Essex 2007 to 2032.

Activity to reduce residual waste and reduce landfill reliance is being pursued by the Essex Waste Partnership (EWP) through the implementation of the JMWMS. This strategy adopts the principles of the waste hierarchy and Best Practicable Environmental Option. Waste minimisation and the achievement of high recycling is at its core; with the biological treatment of any remaining waste that cannot be practicably recycled. This strategy is consistent with national policy and guidance. In order to achieve the strategic aims the EWP is delivering: Enhanced recycling services; particularly the separate collection of food waste; Bio waste treatment facilities to process food and combined food / garden waste; Waste transfer stations to optimise haulage logistics; and a Mechanical Biological Treatment (MBT) facility to treat residual waste.

It is difficult to predict future waste trends, which can be affected by factors over which ECC has little influence. Legislative changes, weather, population growth, economic growth, product design and consumer behaviour are just some of the factors which will affect the nature and volume of waste arising over time. The Waste Strategy 2007 confirmed that municipal waste arisings nationally were increasing by less than 0.5% each year, a marked improvement on the 3.5% growth noted in Waste Strategy 2000. Despite population growth, Essex has historically outperformed the national trend with household waste between 2003/04 and 2012/13 declining by 4.5%. However to demonstrate the volatility of waste the latest draft outturn position for 2013/14 is indicating a single year growth in household waste of over 3%. Growth levels of this magnitude, if sustained, will have significant operational and financial implications. A 1% uplift in waste arisings has a financial impact on ECC in excess of £500k; whilst sustained growth will mean existing and planned infrastructure, although developed with treatment headroom, will not be able to manage the waste requirements of Essex. The long lead in times for the establishment of new waste infrastructure could therefore lead to a treatment capacity gap impacting on the cost and the environmental performance of the EWP waste systems.

The curve we need to turn - Residual Waste Volumes

Essex should aspire to become a zero waste economy – a place where environmental, social and economic resources are fully valued. Households, businesses and ECC will work to reduce, reuse and recycle all we can and throw things away as a last resort. Essex authorities have received a strong message from Essex households that we should be treating waste as a resource, with a drive towards waste reduction, reuse, high recycling and composting, whilst minimising waste to landfill.

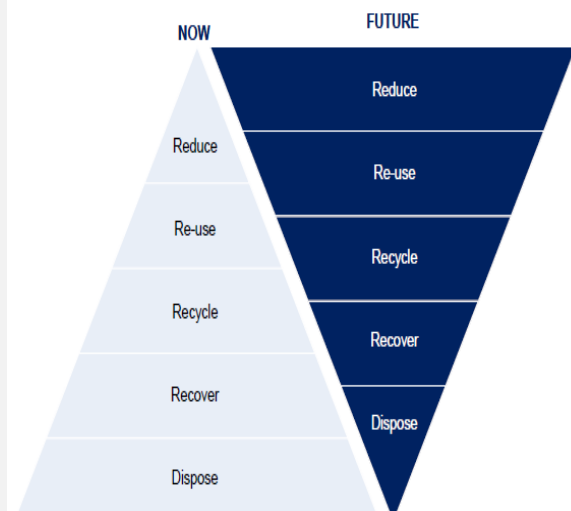
In 10 years time Essex residents will fully understand the impact of waste volumes upon the local environment and economy and it will be the norm to minimise, reuse, recycle, and compost waste. There will be a far greater level of connectivity between collection regimes and the disposal of waste.

Central to this will be:

- By the end of 2014/15 Essex will have established a Waste Prevention Plan, becoming a local leader in preventing waste and forging partnerships to raise awareness and access to waste prevention services
- By the end of 2015/16 the amount of waste sent to landfill in Essex will be almost zero and this success will be maintained. (Zero cannot be achieved as some materials will not be treatable by the MBT including some hazardous /clinical materials.)

It is not possible to set a landfill target in one years time - as this is dependent upon the Mechanical Biological Treatment (MBT) plant 'hot commissioning' programme and the outcome of the 'offtake' procurement exercise. The MBT Plant will start receiving waste in summer 2014 and will be fully operational in 2015; at which point a guaranteed recycling rate will be achieved and maintained.

- Achievement of recycling and reuse targets of 60% by 2020 across Essex. The MBT facility once fully operational will enable a step change in this figure with 15% of waste received being recycled



- Reduce the consumption of materials
- Reuse or repair wherever possible
- Recycle the material in order to use it again
- Recover every bit of value from material destined for disposal
- Dispose only that material with which nothing else can practicably be done.

Title	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14 forecasts
Kgs residual household waste collected per household	767.51	723.00	643.70	586.00	548.08	516.09	500.00	516.62
% household waste sent for re-use, recycling or composting	36.1%	39.9%	42.96%	46.24%	50.06%	51.95%	52.62%	52.11%
% municipal waste landfilled	64%	62%	57%	54%	50%	48%	48%	51%
% change in household waste arisings compared to the previous year	-0.9%	-1.2%	-2.5%	-3.4%	1.9%	-1.5%	-0.2%	3.2%
% of RCHW waste reused, recycled or composted	59.8%	51.6%	58.5%	63.2%	64.6%	63.9%	62.3%	60.8%

Issues to address in order to turn the curve - Residual Waste Volumes

As a society we will always consume resources and produce waste that will require treatment and disposal. To maximise opportunity our focus needs to remain on working closely with all partners to ensure we adopt the principles of the waste hierarchy and a circular economy in our attitude to waste; designing waste out of the system wherever possible and treating it as a resource where it does arise.

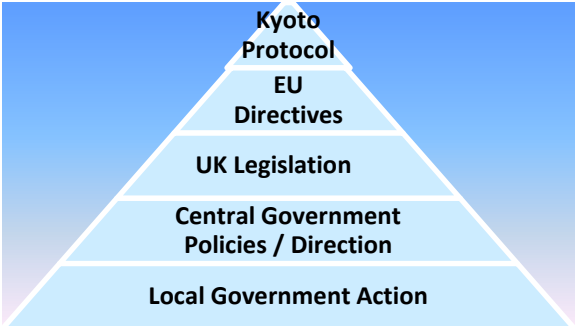
To achieve this there are three key areas of focus:

- **Maximise the financial, environmental and social efficiency of the waste infrastructure being delivered by ECC whilst ensuring its continued fit with partners' waste operations; this means:**
 - Ensuring waste is treated in accordance with the principles of 'best practicable environmental option' (BPEO) ensuring the optimisation of waste infrastructure through the correct treatment of waste at the appropriate facilities
 - Securing a long term viable offtake for MBT output (SRF/RDF) to remove reliance on landfill
 - Exploration and delivery of sustainable utilisation of any headroom capacity within waste infrastructure; benefiting local communities, businesses and the Essex Waste Partnership
 - Monitoring of waste arisings and composition of waste and the development of systems to maximise the ability to successfully identify waste patterns and emerging needs, thus reducing the need to adopt sub-optimal waste treatment practices
- **Optimise the effectiveness and efficiency of collection services and waste operations delivered by the Essex Waste Partnership through joint working and resource sharing; this means:**
 - Understanding local needs and requirements, and optimising waste operational methodologies within the Essex Waste Partnership
 - Adopting a 'Single Waste Authority Principle' in developing services and systems to maximise efficiency and reach
 - Adoption of an integrated procurement approach across the partnership as a means of maximising VfM and effectiveness of collection services through joint procurement or collective bargaining where appropriate
 - Adoption of resource sharing principles and mechanisms within the partnership to maximise effectiveness of systems in reducing residual waste, and minimising unused and unnecessary operational capacity
- **Work with partners and communities to ensure the value and cost of waste is understood as a means of tackling the link between economic growth waste arisings thereby minimising waste; this means:**
 - Coordinated public engagement, incentive activities and using insights from Essex residents behaviour as a means of maximising participation and capture of waste within recycling services, and the adoption of waste avoidance actions
 - Become a 'Local Leader' through adopting a whole organisation approach to waste minimisation and prevention
 - Improve opportunities for community, social enterprise and start-up businesses to enter the reuse and recycling market
 - Lobbying and partnering of manufacturers, retailers and government to tackle waste production upstream through good design and incentivisation, thus reducing waste handled by the Essex Waste Partnership.

2. Cost of Energy to Households

Cost of Energy to households - Strategic analysis and insight – the story behind baseline position

Essex County Council (ECC) cannot control the unpredictable global energy prices, but does have an important role to play in minimizing the impact of energy costs to Essex households and businesses, as well as to the council itself. ECCs role can be split into three broad categories:

Buy Better	Use Less	Generate
	<ul style="list-style-type: none">• The Climate Change Act (2008) requires the UK to cut greenhouse gas emissions by 80% from the 1990 levels by 2050 and by 34% by 2020, whilst the Energy Act establishes a legislative framework for the delivery of secure and affordable energy including steps to simplify energy tariffs for households.• The Carbon Plan is clear that if the UK is to meet its target of cutting greenhouse gas emissions by 80% by 2050, energy efficiency will need to increase across all sectors to the extent that energy use per capita is between a fifth and a half lower than 2011 levels.• There is no clear mandate from central government to local government in terms of energy procurement, but there is an increasing emphasis on local government to lead the way on carbon reduction.• The governments Community Energy Strategy sets out ways in which greater community involvement in energy conservation and generation can help to achieve goals around the decarbonisation of the power sector.• The Infrastructure Bill 2014/15 introduces a Community Electricity Right. This enables communities to be offered the chance to buy a stake in new, commercial electricity schemes in their local area so that they can gain a greater share in the associated financial benefit.	

Essex County Council

- ECC is a large consumer of energy. The breakdown of ECCs energy bill is as follows: Operational (the largest component of which is County Hall) - £3,122,897 (16%); Street Lights - £4,038,904 (20%); and Schools - £12,834,747 (64%).
- As the energy market becomes increasingly volatile and the costs involved continue to increase, public sector bodies are increasingly looking for information on future energy trends and to procurement options which secure value for money. Based on the electricity and gas consumption of the ECC portfolio, a £1 / MWh price movement in the electricity and gas market could equate to £217,000 pa to ECC. ECC is alert to its energy costs with annual energy bills across the ECC property portfolio totaling approximately £20m, with approximately £1.2m of this annual bill arising from the Carbon Efficiency Commitment Scheme which requires all non-energy intensive organisations to monitor use and surrender allowances to offset their emissions.

Essex residents and businesses

- Over recent years prices (measured by the Consumer Prices Index) have been going up consistently, whilst crucially for household incomes, wage growth has been well below the rate of inflation. The cost of energy to households is a significant component to a households general cost of living. In 2003/04, household energy costs accounted for 3% of all household expenditure. By 2010 this had risen to 4.6%. In addition to the pressures faced by households, businesses and the public sector including ECC are sensitive to changes in energy prices which can account for a large amount of their operating costs.
- Over the last ten years wholesale electricity costs have risen by around 140% and gas costs by 240% (OFGEM). Government (through the Energy Act 2013) and Ofgem (through its Retail Market Review) are reforming the market to ensure that energy companies place consumers on the cheapest tariff. Other policies to address energy costs are the Green Deal, The Energy Company Obligation; and installation of smart meters. The cost of domestic gas and electricity has generally increased over the past eight years. Winter 2012 saw all the big six energy supplies increase gas and electricity prices by between 6% and 11%. Despite a number of legislative changes introduced by the Energy Act 2013 to improve the cost and security of energy supply, it is predicted that domestic energy prices will continue to rise over the medium to long term. National government initiatives are therefore focusing on energy efficiency improvements with consultation on a revised set of fuel poverty targets expected in 2014.
- From 2018 it will be illegal to rent out a residential or business premises that does not reach a minimum energy standard to be set at EPC rating E – currently nearly 9000 (14%) of Chelmsford homes are in bands F or G, and will not be legal to rent out when the legislation comes into force.

The curve we need to turn – Cost of Energy to households

In the past, the organisation structure of the County Council has not encouraged the formation of a single commissioning plan for Energy. In particular the following three aspects of energy commissioning have been driven through separate consideration by the County Council:-

- As a consumer of energy (Buy Better and Use Less);
- As a producer of energy (Generate);
- As a community leader on environmental issues.

Essex County Council - The priority in the short term is to protect ECC against the expected substantial increase in energy costs across its operations and provide the County Council with some form of immunity to energy cost increase in the medium to long term. This is particularly pertinent as the County Council's capability as an energy producer significantly increased following the deployment of the strategic waste management infrastructure.

The National Audit Office has indicated that it expects the costs of energy to outstrip general consumer inflation for the next thirty years. ECC have secured fixed basic energy rates up until January 2016 (although actual bills will continue to fluctuate based on actual consumption). Looking to the future, modelling has taken place and it is predicted (based on the current property portfolio) that energy costs are likely to reach £30m in four years' time. This strategy therefore sets out actions to address this issue ensuring that by 2020 ECC will be substantially immune to energy cost increases. This will be achieved through a blend of decreasing energy consumption through education and our own production of electricity to the ECC operational estate. The short term energy cost pressures will be addressed through the Energy Category Management Plan and not specifically the actions contained within this strategy.

We also currently send 377,000 tonnes of municipal waste to landfill. However the expectation is that the Mechanical Biological Treatment (refer to indicator: Residual Waste Volumes) facility in Basildon will be fully operational by the summer of 2015 with volumes of waste going to landfill reducing to zero. This plant will initially produce circa 177,000 tonnes of Refuse Derived Fuel (RDF) which could be used to generate power. The plant will eventually produce a higher quality Solid Recovered Fuel. It is estimated that this product has the potential to generate 15MW of electric power.

Essex residents and businesses – It is estimated that nearly 700 people die each year in Essex from cases directly attributable to cold and poor living conditions. The latest data available from the [Department of Energy and Climate Change](#) (2011 figures) shows that approximately 70,000 Essex households (9.6%) including Southend and Thurrock are classed as fuel poor with particular problems in Uttlesford (11.1%) and Tendring (11.9%). The Commissioning Strategy for *People in Essex enjoy good health and wellbeing* addresses directly the actions that Essex County Council with partners will take to address the issue of fuel poverty. More broadly there is a role for the local authority to play in collaboration with local public sector partners and the voluntary sector to raise awareness of initiatives to support all Essex households to get the best possible deal through switching providers and more efficient energy consumption behaviours. A focus would need to be on heat, as for both ECC and Essex residents, heat is the single biggest reason for energy use. Furthermore, local communities have a role to play in shared ownership of energy initiatives if renewable projects are to flourish and help to decarbon the power sector.

According to DEFRA research, UK businesses could save up to £23billion annually through low or no costs measures to use resources, energy and water more efficiently. There are opportunities to engage with businesses in order to better understand the energy pressures facing them. Links to the 'green economy' also need to be built and exploited. Low carbon environmental goods have been identified as a priority sector for the SE LEP in recognition that the global market for low carbon and environmental goods and services is rising rapidly as higher energy costs and regulation force greater efficiency. Essex has some strong centres of excellence on which to build such as Ford Dunton (green automotive technologies) and Writtle College (land based sciences).

Issues to address in order to turn the curve – Cost of Energy to Households

In order to address the cost of energy to households, a broad programme of work is needed working in collaboration with partners and key stakeholders. The initial areas of activity would cover:

Buy Better	<ul style="list-style-type: none"> Plan out any further iterations of the Essex Energy Community Switching Scheme;
Use Less	<ul style="list-style-type: none"> Behavioural change to influence energy consumer behaviour - across ECC staff as well as Essex households. ECC has a key role to play in leading by example in reducing energy consumption; Linkages with ECC Property Improved data validation of energy consumption across ECC portfolio;
Generate	<ul style="list-style-type: none"> Development of detailed strategy, plan, and if appropriate outline business case for the long term use of the Solid Recovered Fuel (SRF) produced by the residual waste Mechanical Biological Treatment (MBT) plant; Investigation of the feasibility of extending landfill gas extraction to other County Council closed landfill sites and if viable the construction of an outline business case to support the investment in the necessary infrastructure and operation; Investigation of the feasibility of siting solar farms at the County Council closed landfill sites and if viable the construction of an outline business case to support the investment in the necessary infrastructure and operation; Establishing a framework arrangement for the installation of solar photovoltaics on schools (and other public buildings); Investigate the viability (both technically and commercially) of extending the Essex gas grid to rural communities (financed through consumer savings on fuel oil costs); Determine what interventions, if any, the County Council should take in relation to Bio Energy (beyond the existing commitments on municipal biowaste); Determine what interventions, if any, the County Council should take in relation to solar (beyond the schools and landfill initiatives identified above); Determine what interventions, if any, the County Council should take in relation to Heat (beyond the SRF processing arrangements identified above) including, but not limited to, the viability of district heating schemes; and Build on outcomes of initial Community Energy Seminar, to help communities identify energy generation opportunities that are most appropriate and cost effective, and start an Essex network of community groups involved in energy projects and promote knowledge sharing and collaboration.

Immediate external expertise will be required from consultants with both technical and commercial experience in the Energy Sector.

3. Preventable Flooding Incidents

Preventable Flooding Incidents - Strategic analysis and insight – the story behind baseline position

Extreme weather, existing building in floodplains and a limited amount of funding means that we cannot stop flooding incidents in Essex. However, we can coordinate our services so that flood risk is reduced and the aftermath of flood incidents is minimised. Impacts from flooding may include damage to residential and commercial property and infrastructure (roads, utilities and communications). Business and freight transport may be disrupted. Business continuity may be affected and agriculture reduced. Conversely, flood alleviation gives certainty to investors. It unlocks development and leads to multiple benefits.

Since becoming the Lead Local Flood Authority in 2009, Essex County Council has seen some of the driest, wettest and coldest weather on record. The tidal surge event in winter 2013 was higher than 1953 levels in part of the region. Pressure on central and local government to do more to prevent flood incidents has rarely been higher. 'Preventable' flooding incidents are those incidents that we can avoid between risk management authorities and their available budgets. They do not include unprecedented storm events and tidal surges, for which we need to build better community resilience. Inland, prevention and mitigation is critical. However, it is important that we accept a certain level of impact is inevitable and plan how to adapt to this, such as on our coastline. Landowners, communities at risk and businesses have a strong role to play in taking actions to minimise the risk of flooding as well as helping in the collective response when flooding does occur. Government departments are starting to understand the economic impact of flood incidents, alongside impacts on people's properties and wellbeing. GVA impacts include business continuity and sector composition. The impact of preventative spending is high – by preventing flooding, physical assets deliver economic benefits. The Environment Agency calculates that for every £1 of capital investment spent on flood risk management an average long-term benefit in reduced damage of £8 is realised.

The Flood and Water Management Act 2010 requires county councils to lead the coordination of flood risk management for surface water, groundwater and smaller watercourses in their area. Main river flooding and coastal erosion remains the responsibility of the Environment Agency. Essex County Council is required to:

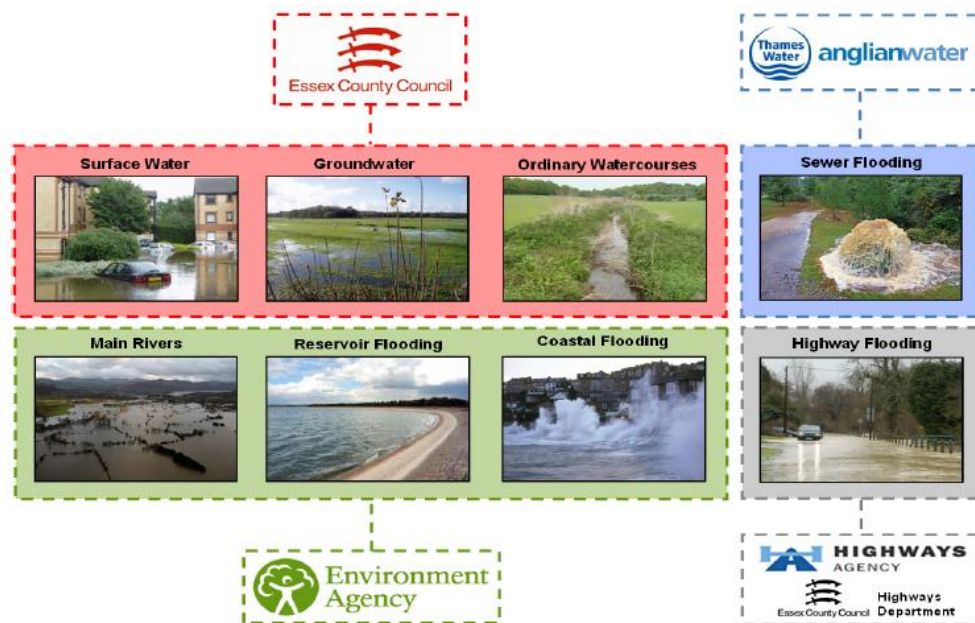
- Prepare and maintain a strategy for local flood risk management
- Maintain a register of assets that have a significant effect on flooding
- Investigate significant local flooding incidents
- Establish approval bodies for design, build and operation of Sustainable Drainage Systems (SuDS)
- Issue consents for changes to certain structures on ordinary watercourses
- Play a lead role in emergency planning and recovery after a flood event.

Case Study - Floodcom



From late 2014/early 2015, Essex County Council will become a Sustainable Drainage Systems (SuDS) Approving Body (SAB). The role is significant. It will approve and adopt sustainable drainage in new developments meeting certain criteria, in line with the SuDS National Standards and the County Council's SuDS Design and Adoption Guide, consulting a number of consultees. Government is due to consult on application fees and maintenance funding mechanisms. The risks associated with these new responsibilities are articulated on slide 56.

As required by legislation, Essex County Council has produced a [Local Flood Risk Management Strategy](#). However, there are a range of different flood risks that Essex residents and businesses may be at risk from. The diagram below shows which organisations have responsibility for managing the different forms of risk. Residents do not know or care, nor should they which organisation plays what role in relation to flooding. As such, at the heart of this indicator needs to be a relentless focus on seamless collaborative working in terms of prevention and response to flooding incidents.



The multi-agency flood plan outlines the arrangements that should be put in place to ensure an efficient and effective multi-agency response to major flooding emergencies in Essex. It is produced by the [Essex Resilience Forum](#) which brings together agencies involved in preparing for and responding to emergencies in the county to develop effective responses to a range of situations. Our responsibilities as a Category 1 responder (as set out in the Civil Contingencies Act 2004) in the case of disaster or major incident are fulfilled by Essex Civil Protection and Emergency Planning, a partnership between ECC and Essex County Fire and Rescue Service.

The annual revenue budget to the Lead Local Flood Authority is limited: £598,000 for the LLFA and £223,000 for the SAB in 2014/15, which are non ring-fenced. Grants are only guaranteed for this year. In addition £500,000 of county council capital/revenue funding is newly available for 2014/15. Other budgets that would make an impact on flood risk include SELEP's Local Growth Fund and Defra Flood Grant in Aid (FCRM GiA). Changes in the funding model mean that partnership funding is essential to leveraging government grants. Highways drainage and gully cleaning, local authority drainage, local highways panels and ward member budgets may also contribute to reducing flood risk. In addition our partners have budgets that would extend our reach if we agreed flood alleviation schemes in a coordinated way.

The curve we need to turn – Preventable Flooding Incidents

We do not have a proxy indicator. We will put together a 'basket' of measures to identify the curve we need to turn. This is likely to include:

Measure	Why is this important?	Where are we now? Where do we want to get to?
a. Numbers of properties at risk of flooding	Essex has an extensive coastline and network of rivers and canals, combined with a large number of towns and urbanised areas, which means it is at risk of flooding from a range of different sources. Our best estimate, given available data, is that 50,000* properties are at risk in Essex. 36,000 of these are in indicative flood risk areas identified in the Essex Preliminary Flood Risk Assessment. Our primary objective is to reduce the numbers of properties at risk. [*Based on data in relation to surface water, groundwater and ordinary watercourses]	Partnerships are developing. We want to have a list of capital schemes ready for funding for at least the next 5 years.
b. Number of customer contacts relating to flooding	We do not currently have a comprehensive understanding of customer contacts across the range of flooding types experienced by Essex residents. We need this to enable investment to be prioritised, communications to be targeted and strategic actions to be tailored based on customer insight.	We do not currently have a baseline although data is gathered across a variety of teams and classified by flooding type. We need to be able to bring all this data together in a timely and meaningful way.
c. Flooding hotspots alleviated by investment	These affect the condition of roads and footways. Closure and part closure of roads due to flooding increases the pressure elsewhere on the network. It affects business continuity and the ability of businesses to transport goods around the county.	Our data is improving on the numbers of flooding hotspots. This might usefully be aligned to the local highways panels for investment.
d. Economic impacts of flood alleviation schemes	Government departments are starting to understand the economic impact of flood incidents, alongside impacts on people's properties and wellbeing. GVA impacts include business continuity and sector composition. The impact of preventative spending is high. The Environment Agency calculates that for every £1 spent on flood defences this reduces expected damage by £8.	We have a limited understanding of the economic impacts of flood and coastal risk management in Essex.
e. Numbers of sustainable drainage applications processed per year within 12 weeks of receipt.	From late 2014/early 2015, Essex County Council will become a Sustainable Drainage Systems (SuDS) Approving Body (SAB). It will approve and adopt sustainable drainage in new developments meeting certain criteria, in line with the SuDS National Standards and the County Council's SuDS Design and Adoption Guide, consulting a number of consultees. There are application fees and a maintenance funding mechanism due to be consulted on. [**This is on major applications only. We will then put arrangements in place to process smaller applications from year 4].	Through the SAB we estimate we will need to process 300 sustainable drainage applications per year within 12 weeks of receipt in the first three years of operation.**

Issues to address in order to turn the curve – Preventable flooding incidents

In order to address preventable flooding incidents, we need a more integrated partnership approach with partners and key stakeholders. The Flood and Water Management Act 2010 places a duty on all flood risk management authorities to co-operate with each other. As the Lead Local Flood Authority, and Sustainable Drainage Approving Body, Essex County Council should lead by example. We also need to exert influence on partners that are able to bring benefits to Essex residents and businesses. The focus of the collaboration should cover prevention, preparedness and protection, recovery and review. Responsibilities relating to flooding are complex, with a range of statutory partners having key roles. In developing our approach we will be mindful of this, and the need to provide Essex residents and businesses with a simple and efficient service. We need to target our collective resources better. We have identified three key resource needs: legal expertise, customer liaison and external communications. A transparent enforcement protocol for Essex County Council is also required covering all aspects of flood, water and land drainage power. We should explore linkages on enforcement protocols across Place services, building on existing good practice in Trading Standards.

Prevention	<ul style="list-style-type: none"> • We continue to build our information base. This year we aim to cleanse all the 230,000 drains throughout the county. Whilst we are cleaning the drains we will also be capturing data to enable us to clean them in a more efficient manner in the future. This will take into account the drain's location; if it is an area that is prone to flooding and how much debris was removed. This will make sure we programme our services in the most efficient manner and ensure the drains remain debris free. • We have established methods in place to prioritise areas within the county based on known historic and predicted future risks of local flood incidents. In order to do this, we can commit to delivery of flood alleviation schemes to protect people and property (where the funding, resources and support are available). We can also make improvements to highways and private drainage to prevent flooding on our roads (with the caveat as above). However, the majority of flood incidents are unpreventable, and we will never be able to guarantee protection from flooding in all rainfall scenarios. • Many uncertainties remain with regard to the implementation of the Sustainable Drainage Approving Body (SAB), associated national standards and SuDS maintenance funding methods. A SuDS team has been formed and work will now begin to establish processes and links with district, borough and city councils. Decisions for inclusion on the Forward Plan as soon as possible will need to include the proposed charging regime, and establishment of resources and set-up of the adoption arm of the SAB.
Prepare and Protect	<ul style="list-style-type: none"> • It is not technically or financially possible to alleviate all flooding risk across the county. It is therefore important to take a risk-based approach and prioritise areas that are at greatest risk and will provide the most benefit from flood risk management work. In refreshing the Essex Local Flood Management Strategy we will articulate what risk management authorities believe to be an acceptable level of flooding. • Our principle method of managing risks should focus on mitigation and resilience. This is achieved through warning, communication, information sharing and education. • No organisation is able to ensure that all households and businesses are safe from flooding. Householders and business owners have responsibility for protecting their households and businesses, but the relevant public organisation has a duty to inform households of their risk and advise what steps they can take to make their property more resilient. • Businesses and landowners also have a role to play in making informed decisions about practices which may impact on flooding such as agricultural techniques.
Recovery and Review	<ul style="list-style-type: none"> • Flooding is a natural event that will occur despite all efforts to prevent it. It is therefore important to focus as much on reducing disruption that flooding causes as on measures to prevent it. • Residents would benefit from a single point of communications between risk management authorities during a flood incident.

4. Level of Pollution

Level of Pollution - Strategic analysis and insight – the story behind baseline position

A good quality environment with low levels of pollution – be that air and water pollutants or noise, waste, chemical and light pollutants is vital for our health and quality of life. We recognise the importance of understanding our activities as a local authority and as a significant local employer. We recognise that the commissioning decisions taken in support of other ECC outcomes could impact in increasing or reducing levels of pollution in Essex. Developing a greater understanding of the direct social and economic costs / disbenefits of pollution in Essex will assist in informing whether commissioning activity to mitigate these impacts is required and how this could be appropriately targeted.

The policy context surrounding the level of pollution is complicated and fragmented given the breadth of areas that fall under this area and the different levels of influence from international, European and national to more local level pressures.

- Building in the 2008 EU Air Quality Directive, the European Commission have published '[Clean Air Policy Package](#)' proposals in December 2013, which includes possible new air quality targets which will have a stronger 'local' focus promoting internet based information.
- The [Natural Environment White Paper](#) (2011) sets out the Government's vision for the natural environment over the next 50 years, including for air quality and noise and nuisance. The [National Planning Policy Framework](#) (2012) explains the social and environmental roles the planning system must play, including helping to minimise pollution and improve biodiversity.
- The [Public Health Outcomes Framework](#) published by the Department of Health in 2012, includes air quality and noise among the main determinants of public health.
- The [Environmental Protection Act 1990 and the Clean Neighbourhoods and Environment Act 2005](#) set the local environmental quality legislation for local authorities.

We do not have an accurate picture of past pollution trends in Essex or what we and our local partners spend on mitigating it. At a national level there is more evidence available. The World Health Organization have recently published data showing that nine British towns and cities are breaching acceptable air quality levels, with Thurrock appearing in this list. Air pollution also damages biodiversity, reduces crop yields and contributes to climate change.

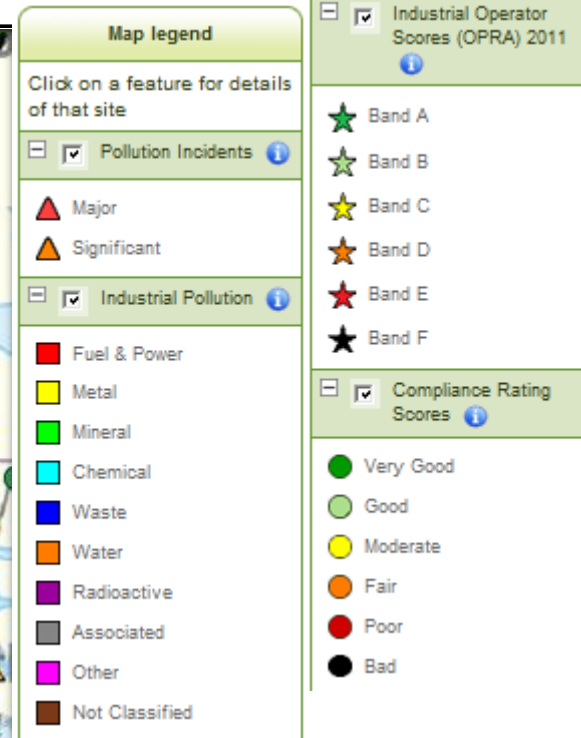
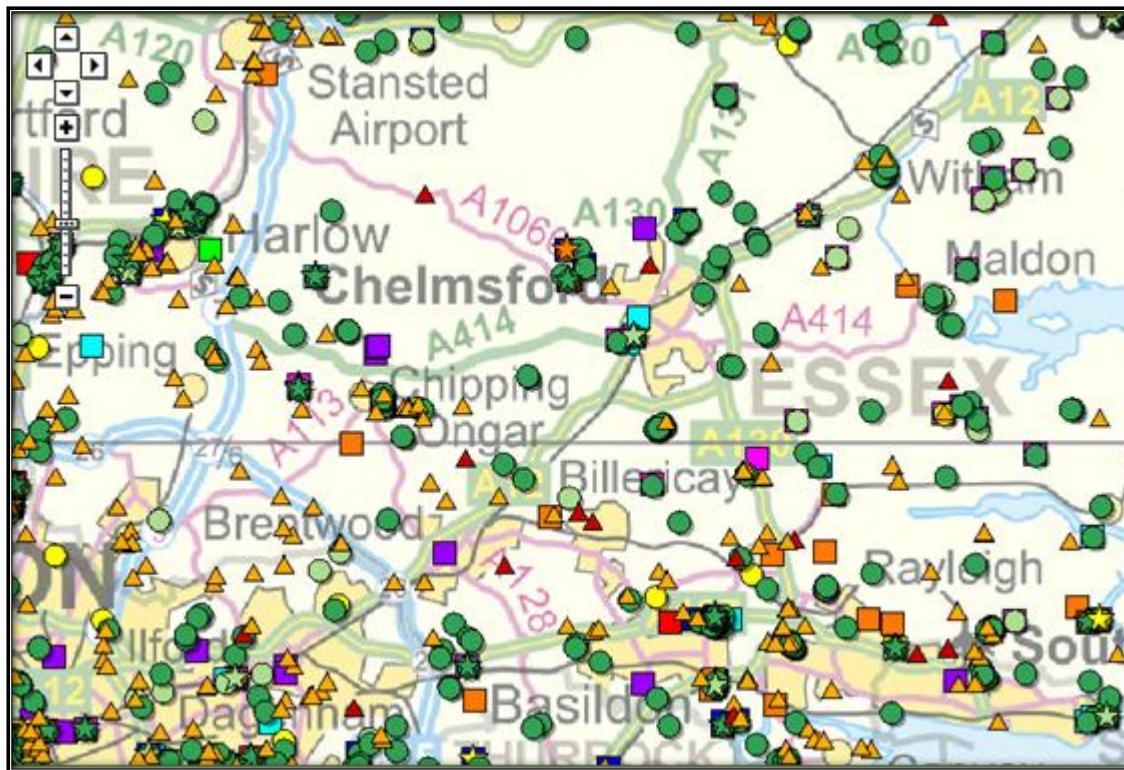
More recently the OECD have produced regional wellbeing data. This rates regions across 34 countries based on a relative score out of 10 against categories including household income, life expectancy and particulate matter in the air. The data relating to air quality gives the East of England region a score of 6.2 (with a high in the North East of England scoring 7.8 and a low of 5.8 in North West).

Limited resources mean we are unlikely to be able to consider costly solutions. We share delivery of this indicator with our partners. For example, lower tier local authorities are responsible for reviewing and assessing air quality to check they meet national air quality objectives. If they are falling short they must declare an Air Quality Management Area (AQMA) and produce an action plan to address this. There are 6 AQMA sites declared across Essex, but it is estimated that there are a number of additional undeclared sites. The majority of issues resulting in these declarations are transport based and the resulting action plans reflect this. [Essex Air](#) collects countywide information on air quality.

Noise and other nuisance have a big impact on our quality of life, our health and the economy.

The curve we need to turn – Level of Pollution

The following map produced by the Environment Agency shows some of the pollution incidents reported across Essex. Whilst this is a useful indicator, further work is needed to pull together a range of information to track pollution sources and identify the curve we need to turn based on priority issues for Essex. Work is underway to identify possible data sources including:



Source: [Environment Agency, What's in your backyard? \(2014\)](#)

- Number of Air Quality Management Areas (Essex County Council)
- CO2 emissions by ECC buildings (Essex County Council)
- Types of businesses new to Essex – impact on pollution levels
- Journey time reliability and linkages with air pollution (Department for Transport)
- Noise pollution sources (district, borough and city councils)
- Waste disposal / disposal of hazardous waste (Essex County Council)
- Fly tipping incidents
- ECC commissioning activities which may impact on pollution levels
- Annual air quality statistics (from each monitoring station: no. days air pollution in each index band, comparison to air quality objectives) (Essex Air Quality Consortium) Nb. Data more recent than 01 Jan 2011 is currently provisional and may change in the future
- Bathing water quality (Environment Agency)
- Watercourse condition (Water Framework Directive) (Environment Agency)
- Drinking water quality (water utilities).

The data in itself is interesting but further work will be needed with partners to explore the 'so what' - what this means in reality for the quality of life for Essex residents; for example respiratory illnesses and life expectancy.

Issues to address in order to turn the curve - Level of Pollution

We need to address the data gaps related to this indicator and ensure that we have a view of all types of pollution across the county. Essex County Council undertakes some environmental impact assessment of its policy decisions. However, we need to understand the actions we should take as a local authority and significant employer, and our scope for influencing the decisions and actions of others. This could include local communities dealing with local pollutants such as litter, through to businesses fulfilling their corporate social responsibility.

Pollution – be that air, water, noise, chemical, waste or light is an issue that has significant interdependencies with our other outcomes. The decisions we take as a council have an impact on levels of pollution. The complementarities between a high quality natural environment, prosperity and positive wellbeing are well evidenced. However the relationship between economic growth and the environment is often seen as being at odds. It is an important issue to better understand the complementarities and trade-offs between our seven outcomes and a high quality and sustainable environment, particularly levels of pollution.

People in Essex enjoy good health and wellbeing:

- Air pollution is now recognised as the biggest public health risk after smoking with an estimated 25,000 deaths in England (2010) from long term exposure to air pollution. It is expected to reduce the life expectancy of everyone in the UK by 6 months on average, at a cost of around £16 billion per year.
- The latest data from Public Health England estimates local mortality burdens associated with particulate air pollution. For Essex the percentage of attributable deaths due to long-term anthropogenic particulate air pollution is 5.7% (East of England = 5.6%, England = 5.6%). Air pollution also damages biodiversity, reduces crop yields and contributes to climate change.

Sustainable economic growth for Essex communities and businesses:

- The South East LEP Strategic Economic Plan has committed to investing in growth corridors and growth sites. As the local economy continues to grow it is inevitable the volume of traffic on our principle roads will grow and the volume of new housing will accelerate. Key to unlocking growth potential is ensuring that our roads and rail routes operate efficiently as delays arising from congestion impose direct, significant costs on businesses. By tackling congestion, we will go some way to addressing air pollution levels in our key growth areas.
- As the SE LEP area expands housing development and economic output, we will face a challenge in ensuring that business and housing growth is delivered within national emissions targets – and that businesses and households benefit from the long term savings associated with greater energy efficiency.
- Running through the SE LEP approach is a commitment to the low carbon economy. The low carbon economy currently employs 46,000 people (across the SE LEP region) and has been identified as one of the key priority sectors. There are opportunities to build on this and ensure that the environmental as well as economic benefits are reaped. Additionally the SE LEP recognises the need to build on good practice by many Essex businesses to minimise their impact on levels of pollution and support a sustainable environment.
- A high quality and sustainable environment make a positive impression and communicates a sense of place and confidence that can be attractive to investors and future residents alike. Whilst there are many other factors that encourage people and businesses to move into an area besides the environment, there is sufficient evidence to show that it does have a role to play.
- The [Essex Local Transport Plan](#) sets out a number of broad outcomes which impact on this strategy in relation to carbon dioxide emission reduction, improved air quality through lifestyle changes, innovation and technology, and sustainable access and travel choices.
- We need to maximise opportunities through our role in highway and spatial planning to ensure that we design in low carbon transport use and at the same time create the appealing working and living environments which make it easier and more pleasant to travel using less carbon intensive forms of travel than car journeys.

5. Condition of Roads and Footways

Conditions of Roads and Footways - Strategic analysis and insight – the story behind baseline position(1)

With a combined Gross Replacement Cost (GRC) of approximately £9billion (reported under whole of government accounts) our highways and transportation infrastructure represents one of Essex County Councils largest assets and provides the connectivity needed by business, communities and individuals alike. Increasingly this network is coming under strain from extreme weather, natural ageing, increased demand and the effect of historic under investment. At the current state the whole highways asset is depreciating by approximately £65m annually.

Whilst recognising that this indicator is about the condition of 5,100 miles of roads and 3,688 miles of footways, we must remember that these assets are only part of the overall transport infrastructure, for example there are 1,500 bridges and 4,000 miles of public rights of way, plus many other assets. However, roads and footways account for 87% of the total GRC. The competing needs of the different transport assets are balanced through understanding the priorities of the Council and the risks associated with specific investment scenarios.

The condition of our roads and footways is linked to outcomes around safe communities (reduced casualties), a sustainable environment (asset condition & reduced congestion), health & wellbeing (reduced road and footway claims, and accessibility of public rights of way), and provides safe and reliable passage for a wide range of business and individual users. Our roads are also key to the achievement of sustainable economic growth. They carry large volumes of traffic through and around Essex and are essential for the flow of commerce as well as the flow of other resources and services across the County. It is essential that the current road condition is safeguarded so that traffic remains free flowing, in order to encourage economic developments which will draw corresponding employment resources and other services to support the Councils objectives for growth.

We must continue to explore the most effective ways to integrate new developments and the use of existing infrastructure. This will enable better forward planning of resources and ensure our total network is fit to support and sustain future growth.

Much of the roads network has evolved over time and is not to modern construction standards. These roads are more prone to potholes. The major contributors to the formation of potholes include the ingress of water, winter freeze-thaw cycles and inadequate drainage. It is vital to get the right balance between reactive repairs and programmed preventative work, not least because a strategy which focuses purely on reactive pothole repairs is not efficient as it can result in a reduction of funds available for preventative work, thus perpetuating the pothole problem. The Highways Maintenance Efficiency Programme (HMEP), a government sponsored but industry-led initiative designed to assist local authorities with asset management development, advocates improving network resilience to discourage the formation of potholes. Indeed, local authorities are encouraged by the Department for Transport to spend winter recovery funding in a manner which reflects guidance in the HMEP. Improving network resilience is achieved through a regime of balanced capital treatments, some aimed at strengthening parts of the network, some aimed at preventing deterioration through low cost surface treatments which seal the network and prevent ingress of water.

The Essex Highways maintenance strategy, in line with HMEP guidance, aims to address road condition by following these principles:

- **Prevention is better than cure** – intervening at the right time to reduce the number of potholes forming and prevent the problem from getting bigger,
- **Right first time** – through rigorous performance management ECC aims to address issues once and get it right, rather than facing extra costs through repeat visits,
- **Clarity for the public** – The maintenance strategy is published on the ECC website along with details of how to report potholes. Work is underway in response to public satisfaction surveys to further enhance the information we make available regarding how we maintain the road and footway network.

Conditions of Roads and Footways - Strategic analysis and insight – the story behind baseline position(2)

Performance

The latest Annual Road Condition Survey (October 2013) shows that:

- 4% of the county's 'A' roads was classed as requiring structural maintenance as of June 2013, an IMPROVEMENT compared to the 5% indicated in June 2012.
- 5% of the county's 'B' & 'C' roads combined was classed as requiring structural maintenance as of June 2013, IMPROVEMENT compared to the 7% indicated in June 2012
- 25% of the county's 'Unclassified' roads was classed as requiring structural maintenance as of June 2013, a DECLINE compared to the 19% indicated in June 2012.

This data is based on differing survey methods across the network classifications: A, B & C roads were subject to SCANNER machine-based condition surveys; and Unclassified roads were subject to a Course Visual Inspection (CVI) survey. From 2014/15, however, all road condition surveys will be SCANNER based, giving compatible data and baselines across the road network.

In 2013 the county's maintenance hierarchy was reviewed and PR1, PR2, and Local Roads adopted. This is an innovative and Essex-led approach, which enables resources to be focused in a beneficial manner. However, because the hierarchy does not align precisely to the DfT classifications, we are currently unable to compare historic trends:

- Priority 1 Roads (PR1) - largely 'A' class roads, but some 'B', 'C' & 'Unclassified' also
- Priority 2 Roads (PR2) - largely 'B' class roads, but some 'A', 'C' & 'Unclassified' also
- Local Roads (LR) - largely 'Unclassified', but some 'A', 'B' & 'C' class also.

Benchmarking - The Essex Road Condition Compared to Eastern Region Authorities:

Eastern Region Authority	Unclassified Roads (11/12)	A Roads (12/13)	B & C Roads (12/13)
Bedfordshire	n/a	2%	N/A
Cambridgeshire	28%	3%	5%
Essex	18%	5%	7%
Hertfordshire	12%	6%	17%
Luton	n/a	6%	8%
Norfolk	28%	3%	9%
Northamptonshire	n/a	3%	7%
Peterborough	22%	6%	N/A
Suffolk	28%	4%	10%

The table opposite shows the latest available road condition survey results for other local authorities in the Eastern region. For 2012/13 Essex road condition for the A Roads was greater than average for the region (and was also in the bottom quartile nationally), but on B and C roads condition was relatively good. NB. There is no benchmark data available relating to PR1, PR2 roads and Local Roads as this hierarchy is specific to Essex.

Data on the performance of our partners to the south in Kent is currently being sought.

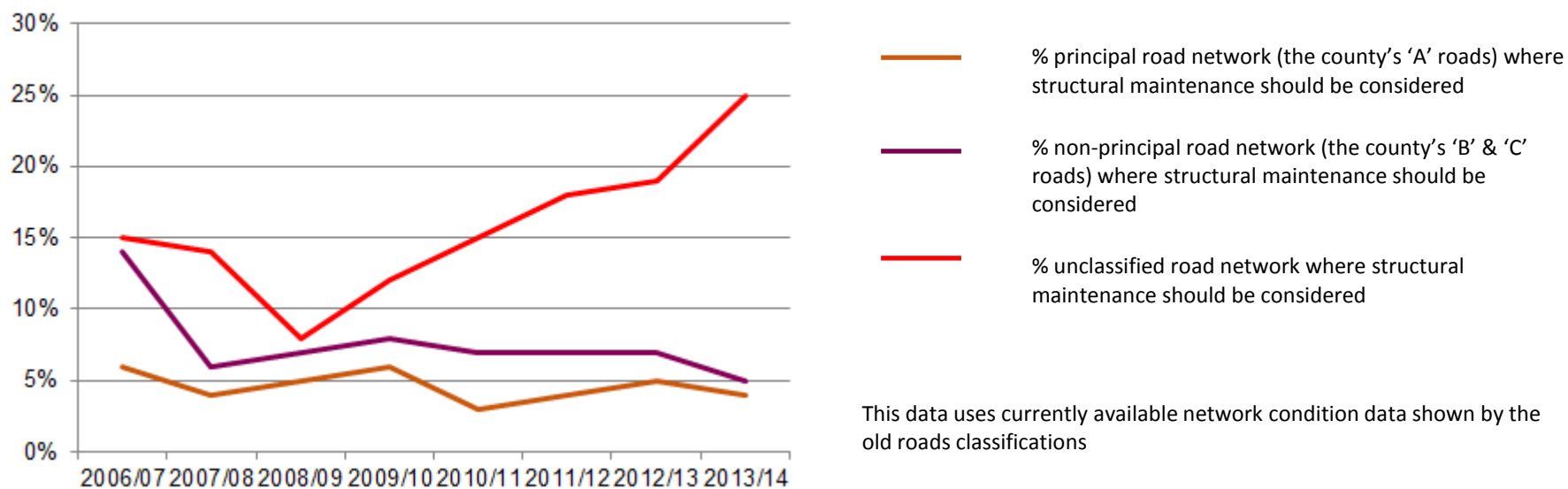
Conditions of Roads and Footways - Strategic analysis and insight – the story behind baseline position(3)

ROADS

Condition Trends

The graph below uses the currently available network condition data, broken down by DfT classification, and shows the current trends:

- the county's 'A' roads (principal) network shows relatively consistent condition from the end of the Highways Maintenance Efficiency Programme in 2007/08
- the county's 'B' & 'C' roads (non-principal) also shows relatively consistent condition from the end of the Highways Maintenance Efficiency Programme in 2007/08
- the county's 'Unclassified' roads network has been following an upward trend from 2008/09. This condition is measured via a visual, rather than machine-based survey, and to some degree is subjective. However, the decline since 2008/09 is clear and can be attributed to the following: size of the network (62% of the total road network) and its subsequent funding need; the priority for funding is given to the A, B and C road network to safeguard main routes; it has a large proportion of older, evolved roads which are more prone to damage from extremes of weather; the % of the network which is in the higher stages of deterioration is much greater compared to the A, B and C roads.



Conditions of Roads and Footways - Strategic analysis and insight – the story behind baseline position(4)

FOOTWAYS

Maintenance of the county's footways also supports a number of other Essex County Council Outcomes - growth (enhanced connectivity), safe communities (reduced casualties), a sustainable environment (asset condition and access to community), health & wellbeing (walking), and provides safe and reliable passage for a wide range of users.

There is a gap in available and reliable data to baseline footway condition. No formal, annual footway surveys have been carried out since 2010/11, by which time only a maximum of 75% of the network had been surveyed.

Footway			2009/10	2010/11
			% Defective (threshold score >=20)	% Defective (threshold score >=20)
Category 1 & 2 footways NB. Accounts for 10% of the overall footway length.	1a= Prestige Walking Zones 1= Primary Walking Routes 2= Secondary Walking Routes	Full Detailed Visual Inspection (DVI) is a walked survey, a Nationally approved survey, carried out by accredited surveyors using accredited data collection techniques. Records Major and Minor defects; data and results processed via the United Kingdom Pavement Management System (UKPMS)	11.0%	9.0%
Category 3 & 4 footways NB. Accounts for 90% of the overall footway length.	3= Link Footways 4= Local Access Footways	Bespoke 'cut down' Visual Inspection, based on Full Detailed Visual Inspection (DVI) but only records major defects. Data processed via the United Kingdom Pavement Management System (UKPMS)	16.0%	18.0%

The above outturns cannot be referenced as an understanding of the current condition of our footway network, due to the date of the results.

Highway Inspectors have been tasked with carrying out a survey of the whole network. It is anticipated that this will be completed mid 2014/15, and it is this data which will be analysed to provide an indication of the current condition. This will establish a baseline only, with no alternative comparators. However, due to the under investment in footway maintenance in recent years, and taking into account engineers' local knowledge, it is reasonable to assume that footways are in a trend of decline.

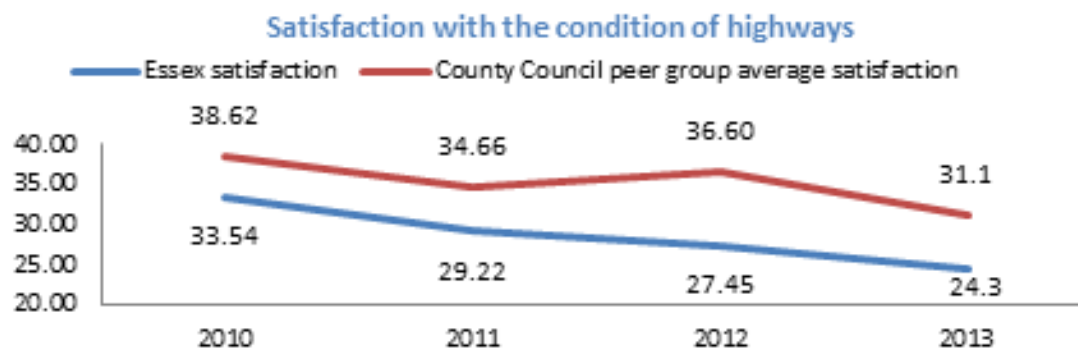
Conditions of Roads and Footways - Strategic analysis and insight – the story behind baseline position(5)

For the past four years ECC has participated in a resident satisfaction postal survey conducted by Ipsos Mori on behalf of the National Highways and Transportation benchmarking network. This provides ECC with invaluable customer insight and increasingly robust trend information.

70 authorities participated in the survey in 2013, which saw 352,000 surveys issued with an average response rate of just over 15%. Essex response rate was just over 16% with 1977 responses received. Over half of the returns included additional comments, with half of those relating to the condition of roads. 21 County Councils and four unitary authorities are included in the County Council Comparator Group, thus any ranking comparisons here are out of 25 authorities.

The headline messages are presented below:

- Levels of satisfaction with Highway Condition continue a downward trend both locally and nationally despite being identified as the area of greatest importance to the public. In Essex satisfaction has decreased by 28% from a score of 33.5 in 2010 down to 24.3 in 2013.
- Essex satisfaction scores for the Quality of Repair to damaged roads & pavements (26.4); Condition of road surfaces (22.8); and speed of repair to damaged roads and pavement (16.6) have all shown a year-on-year decline over the same four-year period, ranking Essex 17th, 21st and 23rd respectively. However, this trend of decline is also representative of the national picture.



- Levels of satisfaction with the condition and cleanliness of pavements is also low. Essex satisfaction scores for the condition of pavements (46.5) and the cleanliness of pavements (52.6) place ECC 24th and 19th respectively in the rankings when compared to others in the County Council comparator group.

The curve we need to turn – Condition of Roads - OPTIONS

Modelling is underway to develop a set of cost / condition options.

Early indications are that to maintain the 'steady state' i.e. the current performance condition of our road network is maintained, an additional £17m year-on-year capital investment against 2013/14 levels would be required, as shown in the table below:

Roads	Estimated Investment Levels 13/14	Estimated Investment Levels 14/15	Estimated Investment Levels 15/16	Estimated Investment Levels 16/17	Estimated Investment Levels 17/18	Estimated Investment Levels 18/19	Estimated Investment Levels 19/20
PR1	3,000	5,711	3,547	3,547	3,547	3,547	3,547
PR2	5,500	13,201	8,984	8,984	8,984	8,984	8,984
Local Roads	16,500	19,088	29,470	29,470	29,470	29,470	29,470
Total	25,000	38,000	42,000	42,000	42,000	42,000	42,000

Roads	Estimated Outturn 13/14	Estimated Outturn 14/15	Estimated Outturn 15/16	Estimated Outturn 16/17	Estimated Outturn 17/18	Estimated Outturn 18/19	Estimated Outturn 19/20
PR1	4%	4%	4%	4%	4%	4%	4%
PR2	9%	10%	10%	10%	10%	10%	10%
Local Roads	23%	25%	25%	25%	25%	25%	25%

NB.

Note that the figures for roads have been produced using an internal modelling process which has been employed for purpose of informing budget setting for many years. The treatment costs have been estimated through a zero-based budgeting exercise with senior capital maintenance engineers, and makes an allowance for annual network deterioration and for treatment cost inflation. The asset management team is committed to driving down treatment costs through exploring lower cost alternatives and by determining and implementing cost-effective treatment strategies. However, the network is ageing, and as it declines there will be a greater requirement for higher-cost, strengthening treatments. For example, the current treatment for footways is predominantly higher-cost reconstruction works.

If the ambition was to substantially reduce the percentage of local roads where structural maintenance should be considered to 10% (as compared to above example which shows a 25% ambition) it is estimated that year-on-year capital investment into the condition of roads would need to be in excess of £77m, illustrating the scale of the challenge faced.

The curve we need to turn – Condition of Footways (1) OPTIONS

Although the formal footway condition data is historic and no longer represents an accurate reflection of current footway condition, it is used here in the absence of other data, merely to indicate the direction of condition based on investment scenarios.

Highway Inspectors have been tasked with carrying out a survey of the whole network. It is anticipated that this will be completed mid 2014/15, and it is this data which will be analysed to provide an indication of the current condition. This will establish a baseline only, with no alternative comparators. However, due to the under-investment in footway maintenance in recent years, and taking into account engineers' local knowledge, it is reasonable to assume that footways are in a trend of decline.

Option 1 – Indicative Capital Maintenance Funding (000's)

Footways	Estimated Investment Levels 13/14	Estimated Investment Levels 14/15	Estimated Investment Levels 15/16	Estimated Investment Levels 16/17	Estimated Investment Levels 17/18	Estimated Investment Levels 18/19	Estimated Investment Levels 19/20
Category 1 & 2 Footways	1,250	966	376	376	376	376	376
Category 3 & 4 Footways	4,000	5,534	1,624	1,624	1,624	1,624	1,624
Total	5,250	6,500	2,000	2,000	2,000	2,000	2,000

Footways	Estimated Outturn 13/14	Estimated Outturn 14/15	Estimated Outturn 15/16	Estimated Outturn 16/17	Estimated Outturn 17/18	Estimated Outturn 18/19	Estimated Outturn 19/20
Category 1 & 2 Footways	11%	13%	14%	17%	19%	22%	25%
Category 3 & 4 Footways	20%	20%	20%	21%	22%	23%	24%

- Please note that estimated outturns used in the tables above are based on previous survey methodology and results. These are used in the absence of other information and are for illustrative purposes only to indicate the direction of travel and are not to be considered as targets.

Option 2 – Maintaining Steady State (£000's)

Footways	Estimated Investment Levels 13/14	Estimated Investment Levels 14/15	Estimated Investment Levels 15/16	Estimated Investment Levels 16/17	Estimated Investment Levels 17/18	Estimated Investment Levels 18/19	Estimated Investment Levels 19/20
Category 1 & 2 Footways	1,250	966	3,000	3,000	3,000	3,000	3,000
Category 3 & 4 Footways	4,000	5,534	11,500	11,500	11,500	11,500	11,500
Total	5,250	6,500	14,500	14,500	14,500	14,500	14,500

Footways	Estimated Outturn 13/14	Estimated Outturn 14/15	Estimated Outturn 15/16	Estimated Outturn 16/17	Estimated Outturn 17/18	Estimated Outturn 18/19	Estimated Outturn 19/20
Category 1 & 2 Footways	11%	13%	13%	13%	13%	13%	13%
Category 3 & 4 Footways	20%	20%	20%	20%	20%	20%	20%

- Please note that estimated outturns used in the tables above are based on previous survey methodology and results. These are used in the absence of other information and are for illustrative purposes only to indicate the direction of travel and are not to be considered as targets.

Issues to address in order to turn the curve - Condition of Roads and Footways (1)

Pressures on Roads and Footways

A number of issues exert pressures which impact upon the ability to turn this curve:

- **Environmental Impact** - Damage from severe weather (cold, hot, wet/flood, wind) and the cost of reactive and programmed repairs. Recent weather trends suggest that the deterioration of roads and footways will continue, so there is a need to implement treatment strategies which mitigate these effects; for example the capital drainage budget has been increased from approximately £0.5m to £2m in 2014/15
- **Inflation** - Increasing material and energy costs, especially as many treatment costs are linked to the price of oil
- **Road and footway excavations by third parties** eg. utility companies - openings weaken the structure, especially when reinstatements are not made to a high standard. Need to ensure that we continue to work closely with utility companies to improve those with a poor performance record
- **Demographic and economic growth** (Roads) - Population growth is increasing traffic volumes, and increasing HGVs which have significant negative impact on road condition. Analysis from the Transport Research Laboratory indicates that the effect on road condition of one HGV is the equivalent to 10,000 cars travelling on our roads.

The Highways Act recognises that defects will arise on roads and footways (this is also recognised by the Highways Maintenance Efficiency Programme), and their appearance does not necessarily mean that Essex County Council has breached its statutory duty. However, if a defect has caused injury to an individual or damage to property individuals are entitled to make a claim for compensation. ECC has the statutory right to defend and repudiate claims under the Highways Act but between 2008/09 and August 2013 insurance claim payments totalling £3.85m were made by ECC (£3.1m for Footways and £750k for potholes) .

Whole-life Maintenance

The Essex Highways maintenance strategy strives to minimise whole-life maintenance costs through arresting deterioration annually through low cost, value for money treatments, rather than using a 'worst first' approach. The latter has been proven to be less effective, as funding is targeted at higher-cost, strengthening works resulting in too little funding to arrest annual deterioration. For example, with reference to the draft capital maintenance programme for roads for 2014/15, low cost, value for money surfacing treatments account for approximately 37% of the total lengths of planned works, compared to 8% higher-cost, strengthening treatments. Surface Dressing Pre-Patching (preparations for surface dressing in future years) accounts for 52% of the total length of planned works.

Innovation

Through the contract, we are using Ringway Jacobs to bring innovation into how we do the work and the materials we use. Ringway Jacobs have brought in new innovations including jet patching and infra-red heat treatment of the road surface. Plus alongside the asset management team we have set up a materials working group to ensure the latest developments are considered and used where appropriate. This links in with a laboratory in Bordeaux that Ringway Jacobs have access to.

Issues to address in order to turn the curve - Condition of Roads and Footways (2)

- Roads and footways combined account for 87% of the total GRC of all highways and transportation assets. However, accessibility to the user relies upon effective asset management of all assets which includes setting appropriate capital investment levels – refer to the table below. In addition, there are revenue funded activities, such as environmental maintenance, which contribute to the sustainability, accessibility and safety of the network.
- National Highways & Transport Network (NHT) public satisfaction surveys provide invaluable feedback on highway activities. This can be influenced by the way in which we manage public expectations, and we have plans to address this matter through developing our customer communications through the ECC website and media campaigns.
- It is widely acknowledged within the industry that ‘surface dressing’ is one of the best low cost treatments which can be applied, and Essex Highways monitors its use of low cost treatments through a performance measure where the methodology is aligned to a year-on-year increase. The use of other low-cost proprietary treatments for roads and footways will be explored under the Essex Highways Partnership. These matters are being addressed in 2014/15 through the rehabilitation of a ‘Materials Work Group’ to investigate adding treatment types to the current ‘palette’ of treatments, to exploit existing as well as new and innovative materials. Care will need to be taken, however, to investigate new materials and application techniques thoroughly before introduction, in order to avoid unforeseen early life failures that could result in a future maintenance liability for the authority.

Appropriate Capital Maintenance Investment levels are needed for all highways and transportation infrastructure - the following table indicates the levels of funding needed over each of the next five years to maintain the current condition for individual asset groups.

Asset Group	2014/15 Capital Funding £000's	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018/19 £000's	2019/20 £000's
Bridges	2,500	5,000	5,000	8,000	8,000	8,000
Carriageways	38,000	42,000	42,000	42,000	42,000	42,000
Drainage	2,000	500	500	500	500	500
Footway and Cycle tracks	6,500	14,600	14,600	14,600	14,600	14,600
Highway Lighting	2,000	1,650	1,650	1,650	1,650	1,650
Public Rights of Way	0	100	100	100	100	100
Street Furniture	2,000	2,700	1,895	1,899	1,899	1,899
Traffic Management	1,000	605	455	1,486	1,416	1,416
Total	54,000	67,155	66,200	70,235	70,165	70,165

6. Access to Valuable Open Spaces

Access to valuable open spaces - Strategic analysis and insight – the story behind baseline position

Essex is a county of immense contrasts. It has a population of 1.6million and a series of large urban settlements, but with 72% of its land areas devoted to agriculture the county is still significantly rural in character. Essex has one of the longest coastlines at 350 miles and the Essex Way, our premier 81-mile long distance footpath. In addition the county is home to 81 Sites of Special Scientific Interest, 10 Special Areas for Conservation, 7 National Nature Reserves and 1440 Local Wildlife Sites.

It is in our open spaces that we find recreation, health and solace, and in which our culture finds its roots and sense of place. Open spaces can add 'value' in a number of ways as shown in the curve we may choose to turn. If parks and green spaces are well managed, research has shown that communities use their local spaces more, have better relationships with the local communities and take some pride in the area where they live. They provide communities with a sense of place and belonging, opportunities for recreation, health and fitness, events that reinforce social cohesion and inclusive society and offer an escape from the stresses and strains of modern urban living which can feel compounded by the built environment. So this is a real opportunity for preventative action. There is a link to the People indicator on healthy activity.

National data shows us that 83% of UK households with children aged five and under visit their local park at least once a month and also that 70% of park managers have recorded increased visitor numbers to their principal parks over the past 12 months. In terms of the value that these open spaces provide, research carried out by CABI in 2011 nationally, revealed that 85% of people surveyed felt that the quality of public space and the built environment had a direct impact on their lives and on the way they feel. In Essex we know that 75% of respondents to the 2013 residents satisfaction survey (Tracker Survey) were satisfied with parks and open spaces which is a slight increase from 2009/10 levels of 73%. We also know that the vast majority of people that visit our country parks value this experience with consistently high customer satisfaction results (August 2011 – 96% of visitors responded to say they were satisfied with the experience). However, what we don't have currently is a clear understanding of the people that are not using the range of open spaces available to them and the reasons for this.

The Accessible Natural Greenspace Standards (ANGST) as instigated by Natural England shows us that (2008 baseline): 29% of households within Essex have access to a site of at least 2 hectares within 300 metres; 68% of households within Essex have access to a site of at least 20 hectares within 2 kilometres; 19% of households within Essex have access to a site of at least 500 hectares within 10 kilometres; 7% of households within Essex have all of their ANGSt requirements met; and 14% of households within Essex have none of their ANGSt requirements met.

It is important that we remember that only a very small part of open space in Essex is owned by ECC. However this indicator looks to address the value of open space in its widest sense, utilising the leadership and influencing role of ECC to bring maximum benefits across the range of ECC indicators, be that improved health and wellbeing or additional inward investment to the area.

National research shows us that community groups are playing an increasing role in championing and supporting open spaces, particularly local parks. There are an estimated 5000 groups or park user groups across the UK, with each group raising an average £6,900 per year.

The legislative framework for this indicator is complex and fragmented spanning various government departments and European directives. To protect public access, there is comprehensive legislation on public rights of way, open and coastal access and common land and town and village greens:

- ✓ [Highways Act 1980](#)
- ✓ [Wildlife and Countryside Act 1981](#)
- ✓ [Countryside and Rights of Way Act 2000](#)
- ✓ [Natural Environment and Rural Communities Act 2006](#)
- ✓ [Commons Act 2006](#)
- ✓ [Marine and Coastal Access Act 2009](#)

The curve we need to turn – Access to valuable open spaces

Work is underway to define this curve.

There are a number of ways in which we may define 'valuable' which need further exploratory work before baseline data can be gathered and the level of ambition to turn the curve agreed. This definition is the greater value rather than the asset value which is unknown.

Value type	Rationale
Economic value	<ul style="list-style-type: none"> As towns increasingly compete with one another to attract investment, the presence of good parks, squares, gardens and other public spaces becomes a vital business and marketing tool: companies are attracted to locations that offer well-designed, well-managed public places and these in turn attract customers, employees and services. In town centres, a pleasant and well-maintained environment increases the number of people visiting retail areas, otherwise known as 'footfall'. Agricultural land across Essex provides food and jobs. The Essex coast and villages attract tourists to the county (Essex tourism contributed £3 billion the Essex economy in 2012/13). Direct impact on economic competitiveness (inward investment proximity effects, labour productivity).
Physical and Mental Health Value	<ul style="list-style-type: none"> Accessible local green space is an important contributor to good health. It not only provides a daily experience of wildlife but contact with nature boosts people's physical and mental health. Exercise in the outdoors reduces obesity and is shown to reduce heart disease, blood pressure and diabetes – among England's most common medical problems. (People in Essex enjoy good health and wellbeing) Obesity interventions need to be closely aligned with interventions associated with increasing physical activity and recognise the local variations in obesity levels i.e. obesity levels in Essex range from 62% (Chelmsford) to 73% (Castle Point). (People in Essex enjoy good health and wellbeing) Evidence shows only 37.1% of Essex residents participated in at least 4 sessions of at least moderate intensity activity for 30 minutes in the previous 28 days. Also, 44.7% of residents take part in no sport or active recreation.
Crime and fear of crime value	<ul style="list-style-type: none"> Crime and anti-social behaviour are fundamentally linked to the quality and condition of open spaces. Fear of crime actively discourages people from visiting and participating in open spaces.
Societal Value	<ul style="list-style-type: none"> When properly designed and cared for, open spaces bring communities together, provide meeting places and foster social ties of a kind that have been disappearing in many urban areas. These spaces shape the cultural identity of an area, are part of its unique character and provide a sense of place for local communities.
Value from biodiversity and nature	<ul style="list-style-type: none"> We must take effective action to care for our biodiversity and wildlife, if biodiversity in Essex is to be maintained for future generations and for the sake of our own wellbeing and health. This is best achieved on a landscape scale. Open spaces bring many important environmental benefits to urban areas including the cooling area and the absorption of atmospheric pollutants.

Issue to address in order to turn the curve – Access to valuable open spaces

Open spaces in Essex are owned and managed by a wide range of public and charitable bodies as well as private businesses and individuals. Resources are limited and the achievement of excellence is rarely possible without strong partnerships and significant investment. It is important that we look at open spaces in their entirety so we can understand the impact for Essex communities as a whole rather than the impact upon the County Council. As a starting point when considering assets:

- The Essex Public Rights of Way network is the second longest nationally, covering 6,372km, representing significant challenges for its upkeep. 2013/14 saw a deterioration on the percentage of footpaths and rights of way that are easy to use. The first survey of the year in May 2013 produced a score of 55% against a target of 67%.
- The National Cycle Network is a network of cycle routes though the UK with a route passing within one mile of half of the UK population. Essex has extensive coverage with routes 1,11,13,16 and 51 all passing through the county.
- Essex County Council manages eight country parks. The parks are geographically spread across Essex and they provide a range of opportunities for informal recreation attracting over 700,000 visits per year. Each park is very different in terms of its scale, landscape, type of use and ecological value. Additionally, ECC is part of the Lea Valley Regional Park authority and a partner in the Thames Chase Community Forest.
- Essex County Council manages 40 woodlands across Essex providing unsupervised public access.

Regarding data that Essex County Council collects, some baseline information has not been refreshed since 2009. Efficiencies mean that quality indicators, such as the Green Flag Award, are not being updated by Essex County Council (from 2014). However, for this standard we can still look at numbers of awards countywide (around 40). Given year-on-year budget cuts, it is likely that the current trajectory of quality indicators is downwards. This may or may not affect usage and perception of quality. We may need to set a de-minimis level to ensure that we are not causing unnecessary future costs through dis-investment in the green assets.

This indicator is inextricably linked with improved public health. The primary linkage is with the People commissioning indicator 'Percentage of prevalence of healthy lifestyles'. To support achievement of the commissioning outcome on health and wellbeing, we will have to do more to get inactive people into open spaces for moderate activity. This means making places more accessible. As well as making physical access improvements, we will need targeted marketing and promotions. This is essential to achieve highly challenging behaviour change.

A high proportion of the population is 'inactive'. The recent All Party Commission on Physical Activity concluded we have a 'national epidemic'. The cost to the British economy is £20 billion. The top three areas in Essex for low participation are Tendring, Castle Point and Harlow. Keep Britain Tidy's national segmentation of people who use green spaces also identified 'resistors'. These people can see the benefits of using green space. However, they cite fear of crime, litter and the potential for boredom as reasons for not using green spaces in their area. We may join together with public health colleagues to target activity in places, using our coastal paths, country parks, public rights of way and walking and cycling routes as a location for moderate activity.

Given baseline information on accessible natural green space we need to decide if we should address deficits in targeted places. For example, the districts of Tendring, Uttlesford and Braintree had the highest proportions of households without access to natural green space with 59%, 54% and 35% respectively.

Transformational activity is already underway to ensure that our owned green assets are fit for purpose and provide value for money. It is intended that from 2016/17 country parks will become net contributors. This will require an element of invest to save.

Issues to address in order to turn the curve – Access to valuable open spaces

The Essex Tracker Survey is a key tool in capturing the views of our residents on important issues. From 2014, we have moved to capture information on a quarterly basis and have included some new questions which will capture information against our key outcomes. For some of these we will have no baseline information against which to compare, but we will monitor this information regularly and use it to inform our activity.

The questions relating to this outcome are:

From your home, how easy or difficult is it for you to get to open spaces in Essex using your usual form of transport? **Please put a cross (x) in one box only**

[illegible]

How accessible are open spaces in Essex to you? **Please put a cross (x) in one box only**

Easily accessible	Accessible	Moderately inaccessible	Cannot access open spaces	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What improvements do you feel are needed to make open spaces in Essex more accessible? **Please put a cross (x) in all boxes that apply**

[illegible]

7. Perception of the quality of the environment in Essex's cities, towns and villages

Perception of the quality of the environment in Essex's cities, towns and villages - Strategic analysis and insight – the story behind baseline position

As has already been mentioned the quality of the environment – be that the built, natural or historical – is an important determinant on peoples wellbeing and a contributor to the success of many of ECCs other outcomes. It is important that we understand peoples perceptions of the Essex environment, be they Essex residents and businesses or people who may wish to visit or invest in the Essex economy.

We have a good baseline on perception of quality by our residents. The Essex Tracker Survey published in May 2013 has seen some gains compared with 2011/12 such as in people's overall sense of belonging (69% compared with 64%). Other levels are static, such as satisfaction with the local area (81% compared with 82%). Resident satisfaction in some areas is low, such as Castle Point, Basildon and Harlow. The overall satisfaction in being able to influence decisions in the local area (27%) and levels of civic involvement (21%) are relatively low. New this year is the measurement of satisfaction with aspects of the main town centre that you visit.

A good quality built, natural and historic environment provides the setting for growth. As the South East Local Economic Partnership states in its strategic economic plan: "Today our market towns, small cities, coastal communities and villages offer an exceptionally diverse choice of places to live and work". To improve perception of the quality of our built environment, we will need to attract the development of showcase buildings and high quality housing developments. The quality of the environment 'between the buildings' will need to be good enough to attract people and support their needs for healthy activity.

The built, natural and historic features in our landscape are part of Essex's cultural and tourism offer. The Essex visitor economy was worth around £3 billion in 2012/13 and is growing. Essex is a wealthy county and depends on protecting its cultural and historic assets whilst allowing for change and economic development. The planning process is used to deliver change and protect Essex's key assets. This indicator has synergies with the Place commissioning indicator on housing growth and People commissioning indicators on life satisfaction and healthy activity.

Limited resources mean we cannot always achieve excellence. Our priority is to minimise legal and financial risk to the County Council through meeting expectations of legislation. However, the indicator is by no means reliant on public sector inputs alone. Essex has a rich tradition of the private and community and voluntary sectors improving the quality of its places.

[Case Study - Uttlesford second best place to live in UK](#)

[Case Study - Essex is 'crap' and Hertfordshire is 'posh', according to Google](#)



Google



Uttlesford

Uttlesford may be the second best place to live in the UK. However, the district council recognises it is an expensive place to live. Essex was deemed 'crap' through a survey using Google autocomplete and promoted through social media. Other forums may promote the county in a more positive light. We will need to listen to the 'chatter' about Essex as a place to live and sometimes to react to this.

The curve we need to turn – Perception of the quality of the environment in Essex's cities, towns and villages

We do not have a proxy indicator. We will put together a 'basket' of measures to identify the curve we need to turn. This is likely to include:

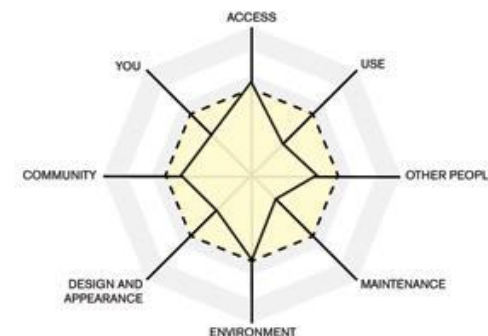
- I. What people like about living in their local areas.
- II. Quality indicators based upon the natural, built and historic environment.

I. As previously stated in 'customer views', local polling conducted in 2002 asked people to identify what they most liked most about living in their local areas and of the 60% that identified environmental factors, the breakdown was as follows (table 1). All residents were then asked "What would improve your quality of life in this area?". The percentage of residents identifying environmental concerns is outlined below (see table 2). Further polling, focusing on the human impact on the environment was conducted in 2003 and 2004. This suggested that 85% of residents are concerned about the impact their household has on the environment. Within this group, 35% consider themselves to be very concerned; Younger residents (aged 18-24) are less likely to say they feel concerned than other residents (57% vs. 85% overall); 45% feel that they are already doing as much as they can to help the environment. However, lack of knowledge may be an issue - over a quarter (27%) say they don't know what more they could be doing. A further 26% say that they do not have enough spare time to act on their environmental concerns.

The results of the 2013 Essex Tracker Survey (published May 2013) contain some useful insight into this indicator that could be used:

- The sense of belonging to the local area has increased significantly since the last survey (69% compared with 64% in 2011/12),
- Overall satisfaction with the local area has also remained steady since the last survey (81% now vs. 82% in 2011/12), although this remains below the high point of mid 2010 when it was 85%. Attitudes to the local area vary widely across the county. Residents are most satisfied if they live in Maldon (91%), Uttlesford (88%), Chelmsford (88%) and Rochford (86%). Satisfaction is below this level in Castle Point (76%), Basildon (74%), and especially in Harlow (69%),
- One in four Essex residents (27%) agree they can influence decisions which affect their local area, compared with three in four (73%) who actively disagree. This finding has remained fairly static since 2009.
- Levels of civic involvement have declined slightly from those in previous surveys. Residents in 2013 are less likely to have participated in regular voluntary work for a group or other organisation (21%) than in 2011/12 (27%).

II. A number of site-based quality tools are available. For example, Spaceshaper (spider diagram pictured), which is a practical toolkit to measure the quality of a public space before investing time and money in improving it. Further quality tools include architectural awards like Civic Trust Awards, which is the longest standing built environment awards scheme in Europe. Also the Design Quality Indicator (DQI) for buildings. Instigated by the Construction Industry Council, it looks at three qualities: functionality, build quality and impact. Where these three qualities are considered equally there is an opportunity for excellence.



Issues to address in order to turn the curve – Perception of the quality of the environment in Essex's cities, towns and villages

The County Council has very limited resources to dedicate to this area of commissioning. Once we know more about the curve we want to turn we will be able to target County Council resources better. The focus will be on our partnerships and in influencing others to improve the quality – and perception of Essex's cities, towns and villages.

Tracking perception in itself is interesting. However, it may depend on people's life experience. As well as overall perceptions, we should take account of professional judgements of quality of our built, natural and historic places. Part of the reason for this is that we need to protect ourselves from legal and financial risk, should our places fall short of required standards imposed by legislation.

The East of England supports a diverse range of habitats, from agricultural landscapes, wetlands and ancient woodland to heathland, rivers and a long low-lying coast that supports a wide range of freshwater, brackish and saline habitats, all interspersed with rapidly growing urban populations. Among these habitats are more than 40 sites that are designated as being of international importance. This variety was captured in a green infrastructure position statement in 2009. Essex is a varied county with many designations for both nature conservation and heritage. The coast is of international importance for overwintering birds, and the county contains 213 conservation areas and 14,200 listed buildings and 296 scheduled ancient monuments which help protect a large number of historic towns and villages. English Heritage annually publishes a list of those sites most at risk of being lost through neglect, decay, or inappropriate development.

We should encourage and enable activity by companies, individuals, community groups, parish and town councils, social landlords, grant-making trusts, education and learning providers and others. The following is a snapshot of this activity:


- RHS Britain in Bloom winners in 2013 included a Gold award for Halstead, which was also the overall winner of Anglia in Bloom. A Silver Gilt award was made to Colchester.
- Writtle College provides skills for our future horticulturists and landscape designers. Its postgraduate students contribute to community gardening projects.
- Graduates of the Writtle School of Design organise public art projects and exhibitions in collaborative, productive and creative interdisciplinary ways.
- Iconic new visual arts centre [firstsite](#), in Colchester, recorded a massive 10,354 visitors in its first week of opening.

To change perceptions of quality, as well as improving the physical fabric of our places, we will need to market ourselves better. This means using communications and marketing tools to put Essex in a positive light.



Our partners and our relationship with them

Working alone the impact of Essex County Council to substantially improve the quality of the environment across Essex's residents is limited. The following slide summarises the key partners and partnerships with whom we will need to work to affect change. Further detail can be found in this document.

	Residual Waste Volumes	Cost of Energy to households	Flood Risk Management	Roads & Footways	Levels of Pollution	Perception of the quality of the Environment	Valuable Open Spaces
Partnerships	<ul style="list-style-type: none"> Essex Waste Partnership 	<ul style="list-style-type: none"> Essex Energy Partnership Essex Energy Switch 	<ul style="list-style-type: none"> Regional Flood and Coastal Committees Kent and Essex Inshore Fisheries Conservation Authority (K&EIFCA) Essex Coastal Forum Essex Partnership for Flood Management Essex Resilience Forum Local community resilience groups 	<ul style="list-style-type: none"> Local Highways Panels 	<ul style="list-style-type: none"> SELEP Essex Air Quality Consortium (air quality) Essex Energy Partnership Carbon reduction in Essex (CORE) 	<ul style="list-style-type: none"> Essex Local Access Forum Essex Rural Community Council  <p>Environment_Part ners&Partnerships</p>	
Partners	<ul style="list-style-type: none"> Defra Urbaser Balfour Beatty Biowaste treatment supplier (once contract let) Veolia – Integrated waste handling 	<ul style="list-style-type: none"> DECC Energy Companies Essex Energy Partnership Energy Consultants 	<ul style="list-style-type: none"> Defra District, borough and city councils Parish and town councils Thames and Anglian Water (sewerage) Environment Agency Essex Fire and Rescue Essex Highways Highways Agency Network Rail NFU/CLA Large landowners Internal Drainage Boards 	<ul style="list-style-type: none"> DfT (funding) Ringway Jacobs (Delivery Partner) Highways Agency 	<ul style="list-style-type: none"> Defra Essex Highways Sustainable Business Travel Team Essex Environmental Health Officers Essex Property & Facilities/ MITIE Industry Water companies Environment Agency 	<ul style="list-style-type: none"> DCLG District, borough and city councils Natural England Environment Agency Gateway ports and airports Civic trusts Active Essex Essex Wildlife Trust RSPB Visit Essex Essex Access Forum Parish and town councils Visit Essex Essex Cares Writtle College RHS Hyde Hall National Trust and other large landowners Sustrans Groundwork Essex, Suffolk and Norfolk 	

Strategic Actions 1: Cross Cutting (indicator-specific actions will flow from these)

Ref	Strategic Actions	Impact	Resources	Time-scales
1a.	Develop links across outcomes on a sustainable environment, economy and health & wellbeing. Develop our collaborations. Deliver pilot interventions, which may be countywide or in certain locations. Review impacts and revise approaches.	Communities benefit from interventions	Internal staff, grant funding as appropriate	2014/17
1b.	Develop a fundraising strategy with innovative funding solutions. Early wins include a countywide programme of flood alleviation schemes and identify alternative funding sources for roads and footways. Explore options to maximise the value of ECC owned open spaces and associated assets including mills, woodland and country parks. Develop projects suitable for grant funding 2015-20 e.g. in the European Structural and Investment Fund and other EU programmes and Local Sustainable Transport Fund; engage with businesses around corporate social responsibility opportunities and sponsorship.	Services become more self-sustaining; Essex receives its fair share of funding	Internal staff, partner resources as appropriate	2014/15 and implement thereafter
1c.	Market ourselves better by identifying audiences where multiple outcomes may be achieved. Then target our messages to reflect each community's specific needs and wants. Work with the broad education sector to review approaches being taken to sustainable environment messages. Target 'inactive' and 'resistant' audiences.	People in Essex will benefit from healthy activity	Internal staff, external resources subject to need and availability	2015/16 and implement thereafter
1d.	Re-baseline certain information Needs may include the definitive map and statement and highway record of roads; 2009 Essex Design Guide; 2009 Analysis of Accessible Natural Greenspace Provision; 2009 Essex Rights of Way Improvement Plan. Assets will be explored in their broadest sense to include the knowledge and experience of local Further and Higher education establishments and businesses.	Mapping assets, opportunities, links & blockages enables us to refine the curve	As above	2015/16
1e.	Commission a review of how we can use 'nudge' strategies to bring about cultural and behavioural shifts in Essex residents to support the outcome.	Residents feel part of the solution	As above	2016/18
1f.	Develop an appropriate enforcement approach across environment and highways to achieve the best operational model (e.g. matrix working with central protocols). Build on existing practice in Trading Standards.	Increasingly enforcement isn't needed	As above	2014/15
1g.	Seek to establish a series of mutually beneficial relationships with private, public, voluntary and community sector partners.	We harness private sector innovation in achieving the outcome(s).	As above	2015/18

Strategic Actions 2: Indicator-specific

Ref	Strategic Actions	Impact	Resources	Time-scales
2	Waste Management: Implement the Joint Municipal Waste Management Strategy for Essex including:	Desired impact on issues	As identified in the JMWMS	To 2032
2a.	<ul style="list-style-type: none"> Operation of the MBT plant for the treatment of residual waste (including short term arrangements for the off-take of the Refuse Derived Fuel (RDF), and a long-term strategy for managing the Solid Recovered Fuel (SRF) produced by the facility; 			
2b.	<ul style="list-style-type: none"> The letting of a long-term contract for the provision of in-County biowaste treatment infrastructure; 			
2c.	<ul style="list-style-type: none"> The development of a network of Transfer Stations; 			
2d.	<ul style="list-style-type: none"> Review and rationalisation of the RCHW estate; 			
2e.	<ul style="list-style-type: none"> Review of IAA Partnership Arrangements; 			
3	Waste Minimisation:	We turn the curve on waste reduction	To be identified.	-
3a.	Increase the profile and opportunities to link with the Defra waste prevention programme			
3b.	Develop a much more coordinated approach with partners to waste minimisation focusing on education and behavioural change.			
4	Energy Generation: Development and agreement of Energy Commissioning plan :	Essex County Council maximises its assets	Internal staff; £100,000 for feasibility study	2014 and beyond
4a.	<ul style="list-style-type: none"> Development of detailed strategy, plan, and if appropriate business case for the long term use of the SRF produced by the residual waste MBT plant; 			
4b.	<ul style="list-style-type: none"> Investigation of the feasibility of extending landfill gas extraction to other County Council closed landfill sites and if viable the construction of a business case to support the investment in the necessary infrastructure and operation; 			
4c.	<ul style="list-style-type: none"> Investigation of the feasibility of siting solar farms at the County Council closed landfill sites and if viable the construction of a business case to support the investment in the necessary infrastructure and operation; 			
4d.	<ul style="list-style-type: none"> Establishing a framework arrangement for the installation of solar photovoltaics on schools (and other public buildings); 			
4e.	<ul style="list-style-type: none"> Investigate the viability (both technically and commercially) of extending the Essex gas grid to rural communities (financed through consumer savings on fuel oil costs); 	Households benefit from reduced energy prices		

Strategic Actions 3: Indicator-specific

Ref	Strategic Actions	Impact	Resources	Time-scales
4f.	<ul style="list-style-type: none">Determine what interventions, if any, the County Council should take in relation to Bio Energy (beyond the existing commitments on municipal biowaste);Determine what interventions, if any, the County Council should take in relation to solar (beyond the schools and landfill initiatives identified above;)Determine what interventions, if any, the County Council should take in relation to Heat (beyond the SRF processing arrangements identified above) including, but not limited to, the viability of district heating schemes; <p>This will be underpinned by:</p> <ul style="list-style-type: none">Secure budget to move programme into initiationFormation of Energy Commissioning Outcome Group.	We have an integrated approach to energy commissioning	Internal staff time; partner resources; consultancy services where we do not have technical skills and capacity	2015/16
4g.				2015/16
4h.				2015/16
4i.				2015/16
4j.				2015/16
5	Energy Buy Better:	Essex households and communities area aware of the opportunities to ‘buy better’ and ‘generate’ and the financial and environmental benefits this brings		2015/16 2015/16
5a.	<ul style="list-style-type: none">Coordinate further Energy Switching Schemes for Essex households;Build on outcomes of initial Community Energy Seminar, to help communities identify energy generation opportunities that are most appropriate and cost effective, and start an Essex network of community groups involved in energy projects and promote knowledge sharing and collaboration.			
5b.				
6	Levels of Pollution	We collaborate with others in preventing pollution. If sustained, this will have a positive effect on people’s quality of life, health impacts and life expectancy	Internal staff time; partner resources; consultancy services where we do not have technical skills and capacity	2014/15 and action thereafter to 2020 dependent on funding
6a.	<ul style="list-style-type: none">Establish an accurate picture of key pollution levels in Essex. Analyse data with our partners and identify appropriate priorities for action either thematic or place-based.			
6b.	<ul style="list-style-type: none">Decide what action Essex County Council needs to take as a local authority and significant employer.			
6c.	<ul style="list-style-type: none">Deliver Trading Standards programmes e.g. to ensure 100% of petroleum and explosives is stored properly in Essex.			
6d.	<ul style="list-style-type: none">Collect and analyse data on air quality monitoring areas that have not been declared but are over the healthy levels of pollution. Produce map of declared and undeclared areas and an integrated transport intervention approach and plan for catering for areas of high pollution from traffic emissions.			
6e.	<ul style="list-style-type: none">Produce noise contour maps as per EU directive.			

Strategic Actions 4: Indicator-specific

Ref	Strategic Actions	Impacts	Resources	Timescales
7. 7a. 7b. 7c. 7d. 7e. 7f. 7g.	Condition of Roads and Footways <ul style="list-style-type: none"> • Lobby Central Government to raise awareness of pressures on local government road maintenance budgets, highlighting linkages with road safety and economic growth agendas. • Explore alternative funding sources. • In recognition of number of resident complaints and compensation claims for this area develop a communications plans which clearly articulates the rationale for prioritisation and streamlines the customer service element. • Routine Safety inspections undertaken monthly on the PR1 network, every four months on the PR2 network, and every twelve months on 'Local Roads'. • SCANNER surveys will be undertaken 100% in both directions on the PR1 and PR2 network ('County Route' network). • Through the Materials Working Group, monitor and explore the pallette of treatments used to exploit existing as well as new and innovative materials. • Explore the drivers behind public perception of road condition, using and building on National Highways and Transport Network (NHT) data. 	Essex receives its fair share of funding; we are able to prioritise investment in the highway asset; residents understand our investment decisions	Internal staff; partner resources	2015/18 As per 1: fundraising strategy and better marketing
8. 8a. 8b. 8c. 8d. 8e. 8f. 8g. 8h.	Preventable Flooding incidents: <ul style="list-style-type: none"> • Deliver Lead Local Authority role. • Plan for operation of the Sustainable Drainage Approving Body (SAB). • Develop an integrated partnership approach to flood risk management to maximise opportunities for data sharing, pooled funding and fundraising, enforcement, shared public messages and collaborative delivery models. • Develop collaboration with parish councils and community groups to increase resilience. • Refresh the 2012 Essex Local Flood Risk Management Strategy. • Maximise opportunities presented by an additional £500,000 capital/revenue investment. To include Essex Flood Hub as potential precursor to a single communications interface. • Apply the new framework developed by Defra and Frontier Economics to assess the impacts on the Essex economy of flood and coastal risk management. • Work towards the transfer of resources, skills and strategies between ECC 'flood management' services being more flexible and to enable improved delivery and multiple benefits where possible. 	We coordinate our services so that flood risk is reduced and the aftermath of flood incidents is minimised; Essex receives its fair share of funding	Internal staff; partner resources (d. Potential iESE pilot e. Potential Defra pilot)	(a&b – tbc) 2014/15 2015/16 2015/16 2015/16 and beyond 2015/16 2014/15 and thereafter

Strategic Actions 5: Indicator-specific

Ref	Strategic Actions	Impacts	Resources	Timescales
9.	Access to Valuable Open Spaces			
9a.	<ul style="list-style-type: none"> Deliver the ambition for ECC country parks to be a small net income generator by 2017. Explore options to maximise the value of ECC owned open spaces and associated assets including mills, woodland and country parks. Review progress and refine approach according to commissioning strategy where needed. 	We are utilising our assets in the best way we can	As per transition plan; internal staff; partner resources	2014/17
9b.	<ul style="list-style-type: none"> Plan the next wave of change once data is updated; strategies refreshed; and a fundraising and marketing strategy is prepared (as per cross cutting strategic actions). 			2017/20

Delivering change within our financial envelope (1/3)

This commissioning strategy has been developed at a time of significant changes in demand (as a result of the economic climate and demographic growth), legislative, technological and financial changes, and rising customer expectations. These drivers have changed the way that public services are funded, commissioned and delivered. Whilst supporting the delivery of the Council's corporate outcomes framework, the strategy will complement and support the delivery of the Medium Term Resource Plan (MTRP) 2015 – 2018.

Current Financial Position

➤ Capital

The Medium Term Resource Plans (MTRP) contains capital funding equating to £147.0million for the period 2014/17, 80% of this is attributed to maintaining the condition of roads & footways, 13% Waste Infrastructure (e.g. Transfer Stations, Courtauld Road) and 7% other (primarily Hadleigh Farm Olympic legacy). The agreed list of capital schemes carried forward, capital innovation proposals and correlating schemes resulting from the economic growth pipeline will be added into this strategy once they have been finalised circa. July 2014; increasing significantly the scale of capital commissioning .

The indicative additional capital investment required to deliver this strategy total £73.9m; this takes account of the annual variations when compared to the 2014/15 Programme. If the cost is fully funded by borrowing, this will ramp up to a further £5.9m of revenue financing cost per annum by 2019/20, which is not currently incorporated within the MTRP.

➤ Revenue

Resources totaling £128.3million is available in 2014/15, this incorporates one-off funding of £12.8million allocated for additional highways maintenance, drainage and gully cleansing. c.£68.4million (53%) of the overall budget is aligned to long term / major contracts and £25.8million (20%) is attributed to waste disposal (landfill) taxation.

Further to the above ECC Energy cost of c.£7.8million (excluding Schools £6.0 million) are budgeted and embedded within figures across all outcomes and Carbon Reduction Commitment allowance of £900,000 is anticipated in –year.

➤ External Funding

External funding opportunities are being explored (e.g. Heritage Lottery Funding) which in many cases will assist ECC in its role of enabling innovation and partnership working. £6.8million is currently in the pipeline and based on the historic success factor of 50%, could present further opportunities of £3.4million.

In addition to grant funding, Section 38, 278 & 106 agreements totalling £36.73 million is available as at March 2014. Whilst these agreements / schemes are subject to third party influences; this position reflects cash held by ECC which subject to conditions being met could be utilised to progress projects / schemes during this commissioning period.

Capital Budget	2014/15 Budget (£m)	2015/16 Budget (£m)	2016/17 Budget (£m)	Total (£m)
Total	87.7	30.9	28.4	147.0

Revenue Budget area	2014/15 Budget (£m)
Residual Waste Volumes	66.2
Cost of Energy to Households	0.0
Preventable Flooding Incidents	1.3
Level of Pollution	0.0
Condition of Roads and Footways	58.3
Access to Valuable Open Spaces	1.8
Perception of the Quality of the Environment	0.8
Total	128.3

External Funding	Pipeline Bids (£m)	Success Factor (£m)
Current Bid Pipeline Activity	6.8	3.4
Developer Contributions e.g. Section 106	36.7	36.7

Delivering change within our financial envelope (2/3)

How we continually improve health and wellbeing and deliver a high quality sustainable environment within financial, social and environmental constraints is a key challenge. The need to respond to an outcome framework and permanent budget reduction has created the opportunity to do things differently to improve what we do from the customer perspective, deliver value for money outcomes within the resources available, whilst still meeting our environmental, legal and social responsibilities.

Medium Term Resource Plans Funding Gap

The Council's Medium Term Resource Plan currently has a funding gap of approximately £50million for 2015/16 rising to £69million by 2016/17 and it is expected that commissioning outcome strategies will overcome obstacles, and identify ways in which this gap can be closed. This could mean that activities may have to be dramatically reduced or stopped.

The actions highlighted within this strategy need to be seen within this context and further work will need to be undertaken to prioritise actions so as to ensure that a reduced funding envelope is used most effectively to deliver the best possible outcomes.

Following adjustment for one-off funding the table identifies the impact of reduced funding on the revenue budget if there were expenditure reductions of 10% or 20%.

We should not assume that the 10% or 20% reduction would be applied equally across the waste and environment theme. The most significant costs and the priorities within this outcome fall within the Waste and Condition of Roads and Footways indicators. However, these are largely statutory and have funding tied up in longer-term contracts. Savings will naturally come from opportunities identified on slide 6. Furthermore some services associated with this outcome are on track to become self-sustaining. Other indicators have near zero budget and will rely on partnership, influencing and lobbying.

Revenue Budget area	2015/16 Budget as per MTRS (£m)	2015/16 budget with 10% reduction (£m)	2015/16 budget with 20% reduction (£m)
Residual Waste Volumes	71.1	64.0	56.9
Cost of Energy	0.0	0.0	0.0
Preventable Flooding Incidents	1.3	1.2	1.0
Level of Pollution	0.0	0.0	0.0
Condition of Roads and Footways	46.1	41.5	36.9
Access to Valuable Open Spaces	1.1	1.0	0.9
Perception of the Quality of the Environment	0.8	0.8	0.7
Total Budget 2015/16	120.4	108.4	96.3

Delivering change within our financial envelope (3/3)

➤ Emerging Challenges

Outlined below are key challenges with financial risks not currently reflected within the funding envelope on the previous slide:

Residual Waste Volumes - Increases in waste tonnages will have a significant financial impact; 1% annual uplift assumed within the MTRP (circa £560,000); overall increase in tonnage 2013/14 4.2%.

Cost of Energy - The Council's overall level of energy determines its liability to pay the energy tax (Carbon Reduction Commitment). One allowance must be surrendered for each tonne of CO2.

The allowance price is as follows:

- £12 per tonne of CO2 for 2013-2014
- Rising to £16 per tonne of CO2 in 2014-2015
- From 2015-2016 the allowance price will increase in line with retail price index.

Demographic Changes - The impact of demographic changes (volume and needs) has not been factored into the MTRP for services aligned to this commissioning strategy. Overall population is forecasted to grow by 4.9% (2021) and shift in ratio of retirement age residents.

Economic Growth infrastructure pipeline – High level figures in the Economic Plan for Essex are for phase 1 (construction) only; other expenditure will be incurred such as life cycle and maintenance.

Flooding Responsibilities – The Council is awaiting (expected October 2014) clarification on the implementation of the Sustainable Drainage Approving Body (SAB), associated national standards and SuDS maintenance funding methods – may include significant obligations and associated financial implications and risks.

Revenue Savings – challenge to deliver anticipated revenue savings in 'Green Assets' and 'Mills & Woodlands'

Our procurement can have a positive or neutral impact on the environment.

➤ Key financial considerations to support the strategy:

- Ensure where appropriate we positively respond to the government bidding proposals and increase percentage of successful outcomes
- Identify successful financing and delivery models and the elements that make them work
- Examine risk apportionment
- Capture the wider benefits of infrastructure and how these might produce revenue income streams
- Encourage closer working to improve mutual understanding, trust, commitment and sharing of cost benefits and rewards
- Adopt whole life principles in making effective and smarter use of existing and new assets
- Optimise capital v revenue budgets to obtain maximum long term benefit
- An overview of this strategy's prioritisation of actions in response to financial challenges is provided at slide 6.

➤ Social Value Act

- We recognise that financial value is not the only consideration for local authorities. The Social Value Act requires all public authorities to obtain 'social value' in addition to value for money through the procurement of their services. Social Value is about improving the economic, social and environmental wellbeing of an area.
- No definition exists within the Act as to what is meant by 'environment' but it is important that as an organisation we share learning to think innovatively about how we will address this.

Risks and Mitigations (1)

The key risks to the delivery of this Commissioning Strategy and subsequent achievement of people in Essex experiencing a high quality and sustainable environment are identified below.

Risk No.	Details of Risk Event	Cause / Triggers	Impact / Consequences	Review period	Current Assessment of Risk			Risk Owner	Mitigation Approach	Mitigating Actions / Controls	Review period	Control Owner		Controlled Assessment of Risk		
					Current controls in place							With ALL controls in place				
					Impact	Likelihood	Risk Rating					Impact	Likelihood	Risk Rating		
1	Waste Growth	Consumer Behaviour consequent of emergence from recession	More municipal waste arising		4	2	(8)		Treat	Waste Minimisation and education		Peter Kelsbie (Jason Searles)	4	2	(8)	
2	Wholesale costs of energy	Global energy prices	Less money to spend on frontline services / or increased Council Tax Increased Fuel Poverty Driving up business energy costs and associated impacts.		3	4	(12)		Treat	Implement energy strategy		Peter Kelsbie	4	2	(8)	
3	Implementation of the Sustainable Drainage Systems (SuDS) Approving Body (SAB)	Delay in commencement of legislation; Defra guidance; and details of charging methodology to be applied	The full resource implications remain unknown		2	4	(8)		Treat	Detailed Defra guidance is expected soon. We have a watching brief. ECC has already produced a draft SuDS Design and Adoption Guide to reflect local circumstances and guide SuDS design in Essex.		Peter Kelsbie (Deborah Fox)	2	4	(8)	
												Impact (Negative)				
												Minor	Moderate	Major	Critical	
												1	2	3	4	
Probability	4	Almost Certain	Medium (4)	High (8)	Very High (12)	Very High (16)										
	3	Likely	Medium (3)	High (6)	High (9)	Very High (12)										
	2	Possible	Low (2)	Medium (4)	High (6)	High (8)										
	1	Unlikely	Low (1)	Low (2)	Medium (3)	Medium (4)										

Risks and Mitigations (2)

Risk No.	Details of Risk Event	Cause / Triggers	Impact / Consequences	Review period	Current Assessment of Risk			Risk Owner	Mitigation Approach	Mitigating Actions / Controls	Review period	Control Owner	Controlled Assessment of Risk			
					Current controls in place				Treat Tolerate Transfer Terminate					With ALL controls in place		
					Impact	Likelihood	Risk Rating							Impact	Likelihood	Risk Rating
4	Deterioration of highways estate	Caused by insufficient investment in asset maintenance Extreme weather Economic Growth and modes of transport	Public Dissatisfaction and queries increasing Insurance claims increasing Safety incidents Inward investment of business		3	4	(12)		Tolerate	Continued annual survey to monitor situation.		Paul Bird	3	4	(12)	
5	Unknown position of some areas of the sustainable environment in Essex.	A consolidated approach to these services has not been a priority for some time.	We do not have a clear baseline upon which to act and invest resources as we have very fragmented picture		2	2	(4)		Transfer	The Commissioning Strategy sets out a number of actions to gather data working with partners to better understand the issues facing Essex in relation to a sustainable environment. Appropriately resourced actions can then be developed.		Peter Kelsbie (Deborah Fox)	1	1	(1)	

			Impact (Negative)			
			Minor	Moderate	Major	Critical
			1	2	3	4
Probability	4	Almost Certain	Medium (4)	High (8)	Very High (12)	Very High (16)
	3	Likely	Medium (3)	High (6)	High (9)	Very High (12)
	2	Possible	Low (2)	Medium (4)	High (6)	High (8)
	1	Unlikely	Low (1)	Low (2)	Medium (3)	Medium (4)

This report has been prepared by
Essex County Council's Place/People Commissioning and
STC functions

**Essex County Council,
PO Box 11, County Hall, Chelmsford, Essex CM1 1QH**



Essex County Council