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Our annual report allows us to show you what we are doing to make Southend a more vibrant and sustainable town for us all to live, work and visit.\*\*

**Councillor Carole Mulroney** 



This document includes:

- the Council's key achievements over the past 18 months; and
- 2015/2020 corporate vision to become a 'Low Carbon, Smart City' by 2020

Councillors and senior managers monitor progress against the targets set out in the Council's Low Carbon Energy & Sustainability Strategy 2015-2020 on a regular basis.

Images courtesy of the Council's Flickr Account, 2imprezs, ForwardMotion or Adobe Stock, unless otherwise stated.

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### Welcome to our 2018/2019 Sustainability Report

Since our last Sustainability Report in 2017, environmental issues have taken centre stage at both the local and global level. Greta Thunberg, school climate strikes and Sir David Attenborough's Blue Planet II have all brought home to us the need for positive action to protect the environment.

Southend's first Low Carbon Energy & Sustainability Strategy was launched in 2015 and set a series of ambitious environmental targets for the Council to achieve by 2020. Topics ranged from reducing the carbon emissions associated with the Council's own property estate to supporting the growth of more sustainable communities across the Borough by helping residents to deal with fuel poverty and lead more active lifestyles.

We have also launched Energy Challenges UK, an exciting project designed to engage our primary schools in environmental topics, such as, climate change, energy and wildlife.

As a seaside town, Southend will see and feel the impacts of climate change and plastic pollution far more than other urban landscapes across the UK. A lot of the work we have done over the last 18 months has centred on these two issues. The Council has secured funding to address localised flooding, set in motion a significant urban greening programme, whilst our PlastiCity project will help us to reduce the impact of plastic waste upon the marine environment.

Above all, the Council is placing the sustainability agenda at the heart of its corporate strategies and work around Southend 2050. We have already set out our goals to become a 'green city' that delivers outstanding examples of energy efficient and carbon neutral buildings, builds climate resilience and enhances our local environment. I hope you enjoy reading about the progress we have made over the last 18 months and although there is much more to do, with your support we can ensure that the Southend Borough has a brighter, greener future.

Cllr Carole Mulroney.





2018/ 2019 HIGHLIGHTS **73%** 

saved in CO<sub>2</sub>
emissions in the
Carbon Reduction
Commitment scheme
since 2012/2013.

# £1 million+



secured to help tackle the impact of plastic waste in Southend.

of energy saving grants provided to businesses in Southend.



of funding obtained to build climate resilience across Southend.

©£216,851

in savings delivered on our residents energy bills.

£600,000+

won to help our residents benefit from solar and battery schemes.

# Reducing our Carbon **Emissions**

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### A 73% Saving on our annual CRC submission since 2012/2013

In July 2018, we completed our annual Carbon Reduction Commitment (CRC) submission to the Environment Agency, reporting a total of 5,367 tonnes of CO<sub>2</sub>. The annual CRC Report presents an excellent opportunity to record the progress that we are making in terms of reducing the overall carbon emissions associated with the Council's building stock.

Reporting 5,367 tonnes of CO<sub>2</sub> for the 2017/2018 CRC year represented a significant drop from the Council's first annual submission in 2012/2013 where we reported a total of 19,926 tonnes of CO<sub>2</sub>. This represents a 73% saving between 2012/2013 and 2017/2018.

The saving can be attributed to a number of factors. The early phases of the CRC scheme included school buildings which were later removed as a reporting requirement. However, streetlights were then added to the CRC and this equalised the situation.

In 2016/2017 we were able to reduce our CO<sub>2</sub> emissions by 21.2%, due to the successful implementation of the Council's LED streetlight replacement programme and the energy efficiency work that we have undertaken across our property estate.

Our 2017/2018 CRC Summary:

Electricity = 3,923 tonnes of CO<sub>2</sub>

Gas = **1,444** tonnes of CO<sub>2</sub>

Feed-in-Tariff: 9 tonnes CO2

Total = **5**,**367** tonnes of CO<sub>2</sub>

# Reducing Carbon Emissions across our Primary Schools

One of the main objectives set in our Low Carbon & Sustainability Strategy 2015-2020 was to help schools within the Borough to cut their carbon emissions and reduce their energy bills. In 2018, we started to deliver Energy Challenges UK and provide support to 10 primary schools in Southend to help them reduce their overall energy consumption.

Energy Challenges UK aims to reduce schools' energy consumption, whilst engaging students and teachers in exciting projects to address key issues like single use plastics, waste and recycling and creating new habitats for wildlife to thrive. The ultimate challenge is helping schools to reduce their energy consumption by 30%.

Energy Challenges UK is possible due to funding provided to the Council through 2imprezs - an EU project that is co-funded by the North Sea Region Programme 2014-2020. The overall objective of the project is to act as a catalyst for energy saving measures in school buildings across the North Sea Region, which includes parts of the UK, Belgium, the Netherlands, Germany, Denmark, Sweden and Norway.

We are delighted to be working directly with the Young People's Trust for the Environment, who have designed a series of completely free learning materials for Southend's primary schools to use throughout the duration of the project.



Energy Challenges UK is proving a fantastic way of engaging primary schools on important environmental topics, including energy and climate change.

Peter Littlewood Young People's Trust for the Environment

To date 10 primary schools (including Chalkwell Hall Junior School, Heycroft Junior Schools and Temple Sutton Primary School) have benefitted from Energy Challenges UK, and teams of Eco Warriors have been tasked with helping their schools reduce their energy consumption. An Energy Challenges UK website will be launched in Autumn 2019.







### Delivering New, Energy Efficient Classrooms at Chalkwell Hall

We approved new energy efficient classrooms to replace three wooden huts that have been in use at Chalkwell Hall Infants School since 1980.

The project at Chalkwell Hall Infant School is the first energy efficiency programme approved as a direct result of Energy Challenges UK. Three demountable classrooms will be replaced with a new energy efficient, modern building.

The building will be home to 4 new classrooms that will allow the whole year group to be taught in the same space and help improve the learning environment for over 120 pupils and their teachers, for example by providing better heating.

In addition, the project will fund an energy efficiency programme for the rest of the school building, with new LED lighting, solar panels, boiler room insulation and in-classroom heating controls.

We expect the project to deliver savings of 65 tonnes of CO2 every year once the work has been completed. The project has been funded through a combination of a Government grant and corporate borrowing, with the revenues generated from energy savings and generation used to repay the finance.

# Sustainable Planning & Regulation

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## 'CRUNCHING' the Urban Planning System

CRUNCH\* is a 3-year funded project led by the University of Portsmouth. It is a £1.6 million research project that brings together 18 research partners from around the world to learn about the food-water-energy nexus and how they connect across urban landscapes. We are a partner in CRUNCH.

The work focuses upon six Urban Living Labs in six cities around the world, including Eindhoven (the Netherlands), Gdansk (Poland), Uppsala (Sweden), Taipei (Taiwan), Miami (US) and Southend-on-Sea. The research explores how the links between food, water and energy can be exploited to make urban environments more sustainable and resilient in the face of climate change.

By the end of the project in 2021, the partners will have delivered a functional and freely available support system for urban planners to help them make rational decisions about climate change interventions across their own urban landscapes.

CRUNCH represents an exciting opportunity for the Council to become involved in future research and infrastructure proposals, not only to extend the finding from this project but to explore other topics that have emerged

during this collaboration with some of the world's leading sustainable cities.

The project was one of the first funded by the Sustainable Urbanisation Global Initiative, a global network of funding bodies helping urban areas become more sustainable.

The CRUNCH project has been a great chance for the Council to connect with some of the world's leading academics, learning how we can become more sustainable.

Stephanie Li

Project Manager

## Creating a more Sustainable Urban Landscape across Southend

At the start of 2019, we were awarded £4 million for public realm and 'place-making' improvements by the South East Local Enterprise Partnership (SELEP) that together with funding from the National Productivity Infrastructure Fund, will be used to tackle urban mobility challenges around Southend High Street.

Our Southend Central Area Transport project (S-CATS) is our key programme that supports the continued growth and regeneration programmes set out by the Southend Central Area Action Plan.

Its main aim is to strengthen and transform the Town Centre by improving the quality of journeys for pedestrians and cyclists, whilst providing a more attractive welcome to Victoria Circus as a whole.

S-CATS will use funding secured through SELEP to improve the streetscape by providing better lighting, an improved drainage system, seating, block paving and enhanced landscaping along London Road (between Queensway and College Way).

Funding from Horizon 2020, has allowed us to deliver a project called SUNRISE, which aims to stimulate and support cocreation processes towards improving local mobility issues around Victoria Circus and the section of London Road between College Way and the High Street.

We have also secured well over £1 million from the National Productivity Infrastructure Fund to deliver a project called TRIP (Town Centre Redevelopment Improvement Project). The funding wiill be used to improve the connectivity between the Travel Centre and the High Street. Looking at how improvements, including new green infrastructure, can be placed along the side roads that connect the two areas.



These projects present an excellent opportunity to determine how the Town Centre can benefit from a more sustainable approach to urban design when tackling mobility challenges."

Amy Roberts
Senior Planner



### Tackling Local Flood Risk through Sustainable Drainage Systems

Economic loss caused by flood risk is expected to increase five-fold by 2050 as a direct result of climate change. Urban areas need to take action now to reduce the future impact of flood risk. The SPONGE2020 project has presented the Council with an excellent opportunity to explore the implementation of innovative sustainable drainage systems across the town.

SPONGE2020 is a project partnership between Dutch, British and Flemish local government, which encourages the partners to co-create and implement innovative climate change adaptation solutions with local stakeholders.

The project will help pave the way for a wider rollout of these solutions across urban areas in order to reduce the risks of damage caused by flooding, whilst demonstrating that urban greening can provide more cost effective solutions than traditional grey infrastructure that is often deployed in cities and towns to combat flood risk.

SPONGE2020 presents an excellent opportunity for the Council to deploy

a series of pilot projects in the Borough that demonstrate how new surface water management systems can be implemented to deliver long-term sustainable flood risk management. The pilots will take the form of sustainable drainage systems, which are otherwise referred to as SUDs.

The pilots will each include direct engagement with local stakeholders, including residents, urban planners and businesses, in order to ensure that the climate adaptation measures that are deployed provide maximum benefit to those who are negatively impacted by the flooding. Work on the pilot projects will commence later in 2019.

### Delivering Local Low Carbon Growth



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### A Five-Year Roadmap to Deliver Local Growth in Southend

Our recently published 'Five Year Road Map to 2023' sets out how we intend to further develop the local economy and emerge as the leading economy in south Essex. This presents some fantastic opportunities that we can explore around the growth of the 'green economy', which is worth \$4 trillion per annum globally - that's as much as the fossil fuel industry.

Over the next five years up to 5,000 additional homes could be built across the Borough, providing a fantastic opportunity to deliver homes that prioritise energy efficiency and renewable energy, whilst looking at opportunities to enhance green space.

This is perfectly demonstrated with Better Queensway, where work is in progress to regenerate the Queensway area and create a new residential-led development made up of high quality housing and a better living and social environment.

We have also contributed to the South2 East local energy strategy, which has been developed to enable the Coast to Capital, Enterprise M3 and SELEP to achieve clean growth until 2050. Work is focusing upon growing opportunities in the region for sustainable energy across the power, heat and transport sectors.

SELEP is part of the Greater South East Energy Hub, which the Department for Business, Energy and Industrial Strategy (BEIS) has funded. The Hub provides the Council with access to a team of specialists that will provide us with support and advice to identify and deliver a series of local energy projects.

The work that we have been undertaking in this area has all been designed to identify how the clean growth agenda can create new jobs and economic opportunities for local residents and businesses.

Our work links directly with the Government's Clean Growth Strategy that sets out the work to be undertaken to decarbonise all sectors of the UK economy. Some £2.5 billion (up to 2021) will be invested in low carbon innovation, which provides us with plenty of future funding opportunities to explore going forward.

### Making the LoCASE for Businesses to Cut their Carbon Emissions

Since the launch of the Low Carbon Across South East (LoCASE) project in 2016 Southend businesses have received free business advice and grants that can be utilised to reduce business overheads and greenhouse gas emissions. Both are designed to help businesses increase profitability and promote business growth and support the low carbon economy.

The Council is a delivery partner of the £18.5 million funded European LoCASE project. It is a partnership with ourselves, Kent County Council, East Sussex County Council, Essex County Council, Thurrock Council and the University of Brighton.

Over the last three years, LoCASE has offered professional advice, support and match funded grants to small and medium sized enterprises (SMEs) across the South East Local Enterprise Partnership.

There are two ways that the project helps businesses. The first identifies how a SME can implement energy efficiency saving solutions in its office space, which helps lower carbon emissions and reduces associated energy bills.

SMEs can also apply for innovation, marketing and consultancy support to help grow their business if they supply low carbon goods or services.

In recognition of the positive impact LoCASE has achieved to date, a series of targeted campaigns for specific sectors was launched throughout 2018. These included funds that were made available for catering and hospitality, care homes and nurseries.

LoCASE has also offered businesses, such as taxis, a 40% grant to replace their business fleet with more environmentally friendly hybrid and electric vehicles.

As of November 2018, a total of 7,695 tonnes of carbon had been saved across Essex alone - the whole project had set out to save 5,965 tonnes in total!

The remaining grants have all been allocated and payments have been made to SMEs in the first two quarters of 2019. This will help drive up additional carbon savings through the project. The LoCASE funding ends in July 2019, with case studies available at www.locase.co.uk.



### A total of 231 LoCASE grants awarded to SMEs in Essex

A total of 231 grants have been awarded to SMEs across Essex, which has included grants for energy efficiency lighting, new heating systems and renewable energy technologies.

### 280 tonnes of Greenhouse Gas Reduction Achieved

As of November 2018, Southend businesses achieved an estimated 280.47 tonnes of greenhouse gas reduction as a direct result of the LoCASE project.

### £223,566 worth of grants secured for Southend's SMEs

A total of £1.3 million in grants was secured for SMEs based in Essex. From that total, businesses based in Southend accessed £223,566 in LoCASE grants.

# **Creating Sustainable** Communities

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### Tackling the Issue of Plastic Waste in Southend-on-Sea

Of the 8.3 billion tonnes of plastic that has been produced over the last 60-70 years, around 6.3 billion tonnes has ended up in landfill or the natural environment - just 21% has been recycled or reused. This has created one of the biggest environmental issues of our lifetime and local authorities have a key role to play in instigating local responses to plastic.

2018 was a big year for action on plastic waste. The EU introduced its Strategy for Plastics in the Circular Economy\*, which sets a series of ambitious targets around waste and recycling. This includes a requirement to increase municipality (residential and business) waste recycling targets to 65% by 2035. The present target set by the EU is for all Member States to achieve 50% waste recycling targets by 2020.

Central government embedded these targets into policy through its recently published Resources and Waste Strategy, 2018. It marks a significant overhaul for all local authorities in England to increase the volume of plastic waste that they collect (including increasing the types of plastic materials that are currently recycled by local authorities.

Both Strategies will have a major impact on waste collection within the Southend -on-Sea Borough. New approaches, new solutions and new ways of engaging householders and businesses will be required to reach the 65% target. In England, household recycling rates have largely flatlined since 2011, when they achieved 42.9%. By 2017, this figure had grown by less than 3% to 45.7%. There is a lot of work to do.

We have been very proactive on the plastic agenda and were part of a successful European consortium called PlastiCity, which enabled the Council to secure in excess of €1 million to work on delivering a new approach to plastic waste that will help us drive up our recycling rates over the next four years.

The funding presents an exciting opportunity to explore how we can benefit from developments within the circular economy and essentially, it will provide us with the opportunity to pilot a free plastic waste recycling service across some of our primary schools.

<sup>\*</sup> http://ec.europa.eu/environment/circular-economy/index en.htm

### Taking a 'LEAP' to Help Residents Reduce their Energy Bills

LEAP (Local Energy Advice Partnership) is a free service that helps people keep warm and find solutions to reduce their energy bills. Since the publication of our last Sustainability Report we have helped our residents save £216,851.18 on their energy bills as a direct result of the LEAP service.

LEAP targets households that are either already in, or are at risk of falling into fuel poverty. It is open to all types of householders - homeowners, private renters and social housing tenants. It offers a free of charge in-home energy advice visit for those who are eligible.

The Home Energy Advisors can then identify opportunities to install simple energy saving measures, such as LED light bulbs and draught proofing; check whether a household is on the best energy tariff via a dedicated energy switching service; and also arrange a free money advice consultation that is designed to help find further funding for additional energy-saving home improvements that can help further reduce energy costs.

You can apply to LEAP by visiting their website (www.applyforleap.org.uk) or phoning (free) 0800 060 7567.

In addition to LEAP, we look to help our residents secure cheaper fuel bills by promoting the Essex Energy Switch and offering those who live in Southend access to our Southend Energy tariff. Switching energy provider is one of the best ways to save money on your utility bills, a process we actively encourage.

# **Latest Southend Energy Stats:**

Savings since launch: £5million+

Total customers since launch: 6,524

Customers in April 2019: 3,865.



### (EM)POWERING our Communities with Solar PV and Batteries

In December 2018, the Interreg North Sea Region funding body approved funding for a project called EMPOWER 2.0. The project will provide us with funding to engage with residents in Southend and explore how we can reduce household dependency on the national grid for energy supplies.

EMPOWER 2.0 will provide over €600,000 worth of funding to explore how we, as a Council, can best engage the energy consumer - our residents and businesses - to accelerate the uptake of technologies and innovations that can help buildings become independent (either partially or fully) from the national grid for their energy supply.

The funding will enable us to deploy a series of technology demonstrators that will include a combination of solar, battery and grid-rebalancing technology. From the demonstrator projects we will be able to engage with the residents and businesses of Southend to showcase how these combinations of technologies can potentially help bring income to solar PV and battery storage owners.



Our work on EMPOWER 2.0 represents an exciting opportunity to see how we can support local residents to generate their own energy and reduce the costs of their energy bills as well.





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### Delivering Positive Action to Improve our Air Quality

In 2018, we launched our new Low Emissions Strategy, as part of our Air Quality Action Plan. It sets out the actions that we will undertake to reduce the harmful emissions and pollutants that are associated with transport. Priorities include reducing emissions from taxis, buses and passenger cars, whilst promoting the use of electric vehicles.

Road traffic creates many harmful pollutants, which include particulate matter, ultrafine particles and gaseous pollutants (including nitrogen oxides (NOx), carbon monoxide and sulphur dioxide). These pollutants have been linked to cancer, asthma, stroke, heart disease and even dementia.

They have also been linked in the UK to costs that add up to more than £20 billion annually. Over the course of the last 12 months we have prioritised action to reduce the impact of pollutants associated with road traffic.

We were part of a funding bid, led by Essex County Council, that secured £1.1 million to retrofit 60 buses with technology that reduces NOx exhaust emissions by up to 90% and particulates by 80%. The work in Southend has focussed on bus services running along the A127, where air quality issues have already been identified.



We need to ensure that we take positive steps to reduce pollutants from vehicle emissions, finding new solutions that help improve air quality across our Borough."

Bill Pegram

Air Quality Specialist

We have also established a new Air Quality Steering Group, which coordinates our work on air quality, including how we will implement the Government's new National Clean Air Strategy 2019.

### Accelerating the Uptake of Electric Vehicles in Southend

Whilst the number of electric vehicles registered in the Borough has more than doubled since 2016, work still needs to be undertaken to increase the volume of our electric vehicle (EV) charging infrastructure. We are delighted to have secured funding to deliver 3 new EV projects, which we hope will encourage more residents and businesses to switch to EVs.

Currently, there are a total of 15 EV charging points in Southend and we have created an E-Car Club for members of the public and local businesses that allows them to access 8 electric vehicles. We have looked to secure funding to help us deliver additional opportunities to increase the volume of EV charging points across the Borough.

Our main focus is to understand how we can provide the necessary EV charging points for people who do not have access to off street parking. It is estimated that between 50-60% of people living in Southend do not have such access - the national average is between 30-35%).

The V2Street project has allowed us to be part of a collaborative research project that looks at using the batteries of EVs to provide energy to the national grid. This is expected to provide revenue for the owners of EVs and could provide a new funding stream that will help us to increase the number of EV charging points through our street lighting.

We were awarded a grant of £90,000 from Central Government that will be used to fund 4 new Rapid Chargers that would be used exclusively for EV taxis in Southend. This funding is supplemented by a feasibility study (Wireless Semi-Dynamic Charging of Electric Taxis) that was recently completed. The study looked at how EV taxis could be charged wirelessly whilst waiting to pick up customers.

Whilst focus has been on EVs, we also made the decision to switch the fuel that we use for grounds maintenance and grave extraction from diesel to cleaner burning Shell GTL Fuel. The decision has helped improve air quality by reducing harmful levels of air pollutants (NOx and particulate matter) without the need for new equipment or machinery.

Switching fuels also led to a range of benefits around performance and efficiency, resulting in improved uptime of our plant machinery and extended periods between refueling, eliminating exhaust odours and a reduction in operational noise.



### ForwardMotion: Navigating to New Opportunities

ForwardMotion encourages people to think differently about the way they travel around south Essex. The goal is to reduce reliance on cars and get people to consider alternative travel options such as cycling, walking or public transport.

Launched in April 2017, the initiative is a collaboration between Essex, Southend-on-Sea and Thurrock Councils. It is funded by the Department for Transport. ForwardMotion provides ideas, advice and information to people across south Essex about how they can travel differently. Our messaging focuses upon saving money, time and improving health, as these are the major drivers of behaviour change.

Our Personal Travel Planning (PTP) service (where trained travel advisors give individuals tailored advice on alternative ways they could travel) has so far resulted in over 2,500 travel plans being created for people to benefit from.

ForwardMotion also runs a series of roadshows in town centres and local workplaces, whilst supporting community events such as Southend-on-Sea's Village Green Festival. Fun activities, such as, a smoothie bike and static cycling racing help to attract people, who can then find out more information about the overall campaign's mission.

ForwardMotion provides a range of services to support people cycling, walking and using public transport. We offer cycle training sessions, a bike loan scheme, walking workshops and discounted tickets. As of March 2019, 223 bikes have been serviced and 746 people who have had a PTP have attended cycle training sessions or guided walks.

In Spring 2019, ForwardMotion launched two brand new Cycle Hubs in south Essex, where you can buy refurbished bikes, recycle unwanted bikes or get your broken bike fixed. Find out more: www.forwardmotionsouthessex.co.uk.



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# Southend set to become a Leading 'Nature Smart City'

Since completing the Environment Agency's 'Targeted Adaptation Support for Council's' programme in 2015, we have set building climate resilience across Southend's urban landscape as a high priority. Over the course of the last 12 months we are delighted to have secured funding on three projects that will allow us to achieve just that.

In June 2018 we led a consortium of European partners (including Bruges, Lille, The Hague and Imperial College London) that won in excess of €6.4 million through the Interreg 2 Seas programme to deliver a project called Nature Smart Cities (NSCiti2S).

The project will help local authorities understand how they can build a business case to approve urban greening projects, which have been shown to offer tremendous benefits across urban landscapes, such as reducing flood risk and providing relief to heat stress.

The benefits are not just limited to climate change - living in a greener environment is associated with better mental health and less risk from conditions such as circulatory disease and asthma, whilst it encourages increased physical activity, which helps to cut obesity levels.

The project will also benefit the new Queensway development. It will provide in excesss of €300,000 towards the costs of delivering an urban greening programme into Southend's largest regeneration project in decades. More information will be made available at www.naturesmartcities.eu soon.

#### Project Summary:

Value: €6.4 million (total)

Funding Body: Interreg 2 Seas

Partners: Southend-on-Sea Borough Council; Cambridge City Council; Bruges; The Hague; Lille; Kapelle; Antwerp; The Zuidrand Regional Association; Imperial College London; University of Gent; University of Antwerp.



### Reducing Heat Stress by Creating a Cooler Town

We were part of a successful funding application called Cool Towns, which brings together expertise from the UK, France, Belgium and the Netherlands to build a greater understanding of how the impacts of heat stress across urban environments can be reduced through the deployment of urban greening programmes and solar shading structures.

2018 was confirmed as the fourth warmest year (average global temperatures) since records began, placing it just behind 2016, 2017 and 2015 in the record books. The impact of warmer temperatures is felt most across cities and towns, as surfaces such as buildings and roads all contribute to making urban areas around 3-4°c warmer than a surrounding countryside.

Cool Towns is funded by the Interreg 2 Seas programme and will enable the Council to deliver a series of pilot projects to test

and validate a number of measures that are designed to reduce heat stress in the Borough. This will include a €195,000 investment to green Southend High Street and deliver a series of pilots that are funded by project partners.

In total the Cool Towns project has secured €7.95 million across the consortium. It provides us with the opportunity to work with Kent County Council and University of Greenwich to deliver solutions to heat stress in South-East England.

## Building a more Sustainable and Resilient Coastal Community

Damage caused by coastal flooding in Europe could increase from €1.25 billion per annum currently to €961 billion by the end of the century. With 8 miles of beaches, Southend is particularly vulnerable to sea level rise, tide and storm surges. This is why we have chosen to lead the €10.33 million Sustainable and Resilient Coastal Communities (SARCC) project.

With mean sea level rise anticipated to be between 1.5m-2.5m by 2100, it is vital that we undertake steps that build greater climate resilience across Southend's coastline. SARCC represents an exciting opportunity to enhance our understanding of how nature-based solutions can be deployed along Southend's coastline to help reduce the risk of coastal flooding.

The project has the objective to help mainstream nature-based solutions into coastal management and policy-making, moving away from traditional grey infrastructure and heavy engineering approaches that are currently major features of urban flood defence systems.

The project brings together expertise from the UK, the Netherlands, Belgium and France, who will work together in order to co-design and develop new nature-based solution techniques, methodologies and practices into coastal management.

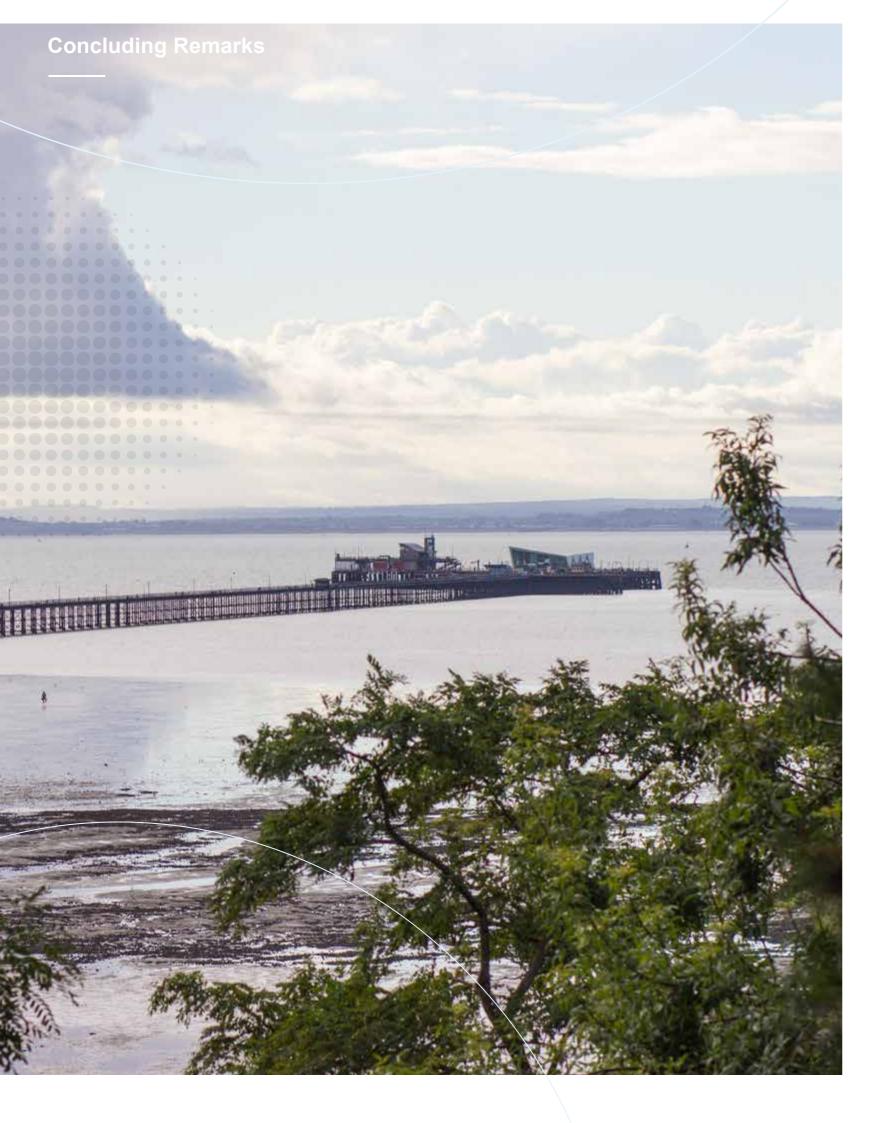
SARCC will provide us with a budget of over €460,000 to deploy a nature-based solution project along our coastline. It will be designed to support existing coastal defences and build more resilience to coastal floods in Southend.

### Project Summary:

Value: €10.33 million (total)

Funding Body: Interreg 2 Seas

Partners: Southend-on-Sea Borough Council; Marine Archeological Trust; Environment Agency; Blankenberge; Vlissingen; Gravelines; University of Technology Delft; Flemish Government & Agency for Maritime and Coastal Services; Middelkerke; Exo Environmental; Ostend; HZ University of Applied Sciences; and Vives University of Applied Sciences.



# Concluding Remarks: The next five-years

An important conversation has been happening right across the Southend Borough since the summer of 2018. Called 'Southend 2050', it's been an opportunity to explore what kind of place we all want Southend to become by 2050, whilst identifying the action that is needed now and in the medium-term to achieve this. Enhancing our local environment was a key theme throughout this discussion.

In early 2020 we will be publishing our third Low Carbon & Sustainability Report that will cover a five-year period up until 2025. To reflect the desires of local people and stakeholders the new strategy will need to be even more ambitious then its predecessor. It will need to build on the success that we have achieved over the past five years, embracing innovation and innovative solutions that build climate resilience across Southend's urban landscape, accelerate local low carbon growth and significantly reduce the threat of plastic waste to human health and the marine environment.

The new strategy presents an exciting opportunity to set out how Southend will become a 'green city' and what benefits this will bring to local residents, communities and businesses. It will set out new funding priorities and detail how we can align our work to new national strategies on clean growth, transport, clean air and waste, whilst demonstrating our support for the Government's commitment to achieve net zero carbon emissons by 2050.

Our 2018/2019 Sustainability Report demonstrates that we are on the right path towards establishing Southend as a 'green city', whilst highlighting the need for further action to improve air quality, mobilise sustainable travel (i.e. deploying an electric vehicle charging network) and reduce localised flood risk. Our Southend 2050 agenda will act as a major catalyst to pursue clean and growth throughout the Borough and look forward to continuing our journey with our residents, communities and local businesses.

Find out more about Southend 2050 at www.southend.gov.uk/southend2050

