

Climate Change Review

Report of the Review Panel

January 2021



EAST RIDING
OF YORKSHIRE COUNCIL

Approval by East Riding of Yorkshire Council

At its meeting of 24 February 2021 East Riding of Yorkshire Council received this report, fully supported the findings of the Panel and approved all of the recommendations contained within this report, subject to the following additional wording in *italics* being added to the following recommendation:

Recommendation 1:

“Recommendations 2 - 11 and also those set out at Appendix 3 of the Review Panel report to be encompassed when developing the Climate Change Strategy.”

CONTENTS

	Page No.
Chairman's Foreword	1
Executive Summary	2
(i) Review Panel Recommendations	3
(ii) Members of the Review Panel	4
(iii) Review Contact Information	4
(iv) Purpose of the Review	4
(v) Financial Implications	4
1. Introduction	5-6
2. Setting the Scene	6-7
3. Council Strategies and Policies	7-12
4. Local Renewable Energy	12-13
5. Government Strategy	13-14
6. Agriculture, Land Management And The Natural Environment	14-16
7. Municipal Waste Management	16-17
8. Transport	17-19
9. Adapting And Resilience To Climate Change	19-23
10. Partnership Working	23-25
11. The Impact of Covid-19	25-26
12. Technology	26
13. Conclusion	26-27
Table of Abbreviations	28
Bibliography	28-29
Acknowledgements	30
Appendix 1 Scope of the Review	31-33
Appendix 2 14 Development expectations in the Local Plan	34
Appendix 3 Action Plan comprised of smaller recommendations	35-38

CHAIRMAN'S FOREWORD

The Climate Change Review Panel was convened to assess climate related risks and opportunities to the Council, its residents and businesses and to investigate how the Council can act to minimise the risks and take advantage of the opportunities. The Panel and I wanted to ensure that this review involved as many Council departments and partner organisations as possible and we developed the methodology to reflect that starting principle. However, we also recognised that the review needed to be undertaken in as timely a manner as possible therefore it was not possible to speak to every organisation in the county or every Council department. Covid-19 impacted on the timescales of the review but the Panel were able to resume after a short break by utilising online meetings.

On behalf of the Panel, I would like to thank everyone who took part in this review of Climate Change by East Riding of Yorkshire Council including the Council's Leader, Portfolio Holder for Climate Change, Members and officers of East Riding of Yorkshire Council and partner organisations from across the county. Their contributions to the review were of immense help and enabled the Panel to gain an understanding of the impact of Climate Change in the East Riding, the extent of the work already underway to decarbonise, the mitigation work underway and the work needed in the future to halt climate change.

I would also like to extend the Panel's gratitude to Alan Menzies (Director of Planning and Economic Regeneration) for his advice, guidance and research throughout the review process and to Alison Finn, Senior Committee Manager who helped the Panel to establish its remit and expertly detailed and collated all the information required by the Panel to establish the recommendations and this report.

The Review Panel quickly established that the Council would not be able to achieve the level of work needed to tackle climate change without the collaboration of local partners. The willingness of organisations to work together and to speak to the Panel has been hugely impressive. The scale of the work needed for the Council to meet the Government's target of being net zero by 2050 is immense and should not be underestimated, but the Panel found that the Council were already undertaking many projects to reduce its carbon emissions. Whilst accepting that work needed to pick up pace, the Panel were pleased with the level of work already underway.

The Review Panel has put forward 12 recommendations, as a direct result of the evidence that was supplied to them, with the aims of helping the Council to achieve ambitious climate change targets. This review has brought to the forefront some of the issues of climate change which, if addressed, will focus the Council's strategic outlook to making the necessary changes, at speed, for the benefit of its residents and businesses. Some of the recommendations require national attention, others can be addressed locally. Although some may be considered aspirational, it would be remiss of the review panel not to have included them.



Councillor Mike Medini
Chairman of Climate Change Review Panel

EXECUTIVE SUMMARY

This Review Panel was convened in 2019 to assess climate related risks and opportunities to East Riding of Yorkshire Council, its residents and businesses and to investigate how the Council can act to minimise the risks and take advantages of the opportunities.

Climate change is having a huge impact globally and nationally in the UK. Every decade the weather is getting warmer, oceans and seas are warming and the resulting ice melt is increasing sea levels. Major extreme weather events are becoming more frequent globally and locally and rainfall patterns are changing.

Over a 14 month period, with a five month break due to the Covid-19 pandemic, the Panel considered the work of the Council and its partner organisations to reduce the scale and impacts of climate change on the East Riding. This helped the Panel to understand existing approaches to reducing carbon emissions, adapting to the impacts of climate change and capitalising on the potential economic and environmental opportunities for the Council and its residents including attracting the green energy sector to the region.

The Panel found that the Council had a number of policies and strategies in place that individually looked to reduce carbon emissions or adapt to the impacts of climate change. However, the Panel considered that the Council needed an overarching Climate Change Strategy that could allow for a more co-ordinated response and that could clearly articulate the Council's and partner organisations' ambitions and vision for the future.

The Panel were encouraged by the amount and scale of projects already underway across many Council services and considered that these schemes needed to be better publicised so residents and businesses could see that work was ongoing to reduce the Council's impact on the climate.

The Panel considered that whilst the Council could only commit to directly reducing and offsetting its own carbon emissions, it could lead by example and aspire to influence partners, residents and businesses across the county to take action. Many partners were already reducing their carbon emissions and had completed many of the "quick wins" therefore collaboration would be needed moving forward.

Whilst climate change is often viewed in a negative light, there were economic opportunities associated with the solutions, such as the generation of renewable energy. As the Humber region had attracted many global companies, such as Orsted and Siemens, the Panel considered that the Council should capitalise on the employment and income generating opportunities they bring and encourage more businesses to the area.

There were also funding opportunities available to the Council that the Panel were keen to see accessed for projects such as heat networks. The Council had already accessed many Government grants and the Panel wanted to see greater utilisation of technology to reduce carbon

emissions and encourage residents to explore opportunities for energy relate property level improvements including through Government funded schemes.

The Panel learned that the Council was involved in a range of environmental partnerships across the county, from large to small scale, all working to protect and enhance the natural environment such as the Local Nature Partnership and the HEYwoods project. These schemes were essential to support the development of a sustainable green economy, for carbon sequestration to achieve carbon reduction targets, to protect and increase biodiversity and enhance the quality and quantity of the county's natural environment.

The Panel found that the Council's ongoing success in relation to waste recycling had been driven by proactive engagement with residents and businesses over a number of years. It was felt that a similar approach could be successfully applied to climate change, supporting the behaviour change which will be needed to meet the Council's ambitions and to demonstrate the importance of valuing the environment.

The transport sector is the largest contributor of carbon emissions across the UK and the Panel recognised that this is a sector where significant emission reductions could be achieved and must be encouraged. The Council has started the process of transferring their own fleet to electric vehicles, but this needed to be up scaled at pace. The lack of electric vehicle charging points in many rural East Riding areas was a recurring theme brought to the Panel's attention by many partners working across the county. That needed to be addressed in partnership to make running electric vehicles across the rural road network more viable. Investment in public transport and cycling and walking routes in the future was also essential in order to encourage residents away from using personal cars, especially for short, local journeys.

The Council plays a pivotal role in managing flood and coastal erosion risk, but much more Government funding would be needed to continue to deliver sustainable flood and coastal erosion risk management into the future. Many schemes had been completed to protect large areas of the East Riding but as the impact of climate change becomes more severe, further schemes would be a necessity. The Panel also felt that local communities needed to be fully aware of the risks and encouraged to consider whether property level resilience measures could be introduced to manage more extreme weather events that were likely to become more frequent due to climate change.

The Panel were delighted by the scale of the ambitions that the Council and its partners had for the decarbonisation of the Humber and Yorkshire region. The Panel met with many organisations including the York and North Yorkshire Local Enterprise Partnership (LEP), the Humber LEP, Yorkshire Water, the Environment Agency, East Yorkshire Buses, the Federation of Small Businesses and TransPennine Express who all had ambitious plans for their own organisations. The Panel considered that partnership working was critical to implement large scale

decarbonisation projects across the region. Membership of a large Yorkshire wide Commission, currently being proposed, with decision making powers and the ability to act quickly was essential to deliver large scale projects that would benefit the whole Yorkshire region.

Whilst recognising the good work ongoing by the Council to reduce its carbon footprint, utilise technology and work with partners, the Panel felt that this work needed to be undertaken at a much quicker pace in order to have a chance to halt climate change at its current level.

(i) REVIEW PANEL RECOMMENDATIONS

No.	Recommendation	Organisation to Action
1	That the Council develops a Climate Change Strategy within twelve months. Working with partners this should include a vision statement for its ambitions on climate change across the county. This will be linked to an action plan that identifies key opportunities for climate change mitigation and adaptation in the East Riding. A review of the Council's Environmental Policy will establish corporate objectives on the environment, including climate change and help ensure that all departments are able to adapt to its impacts and include environmental actions in their service plans. *	East Riding of Yorkshire Council [Economic Development]
2	That the Council commits to reviewing its procurement procedures to ensure that environmental factors are fully considered and appropriately weighted when analysing potential contracts.	East Riding of Yorkshire Council [Procurement and Supplies]
3	That the Council considers undertaking viability studies into the use of hydrogen as a fuel in areas where partnership arrangements could be put in place to share costs and benefit from reduced carbon emissions.	East Riding of Yorkshire Council [Asset Strategy]
4	That the Council considers joining the UK 100 group and buying only renewable energy, generating more of its own electricity and implementing more heat networks utilising grants and support from the Department for Business, Energy and Industrial Strategy.	East Riding of Yorkshire Council [Procurement and Supplies]
5	That the Council develops partnership working by building on existing relationships and creating new ones and helps influence behaviours and ambitions on climate change in both the public and private sector including offering help and guidance to residents, schools and businesses on how they can reduce their carbon footprint.	East Riding of Yorkshire Council
6	That the Council promotes its achievements on climate change through new and existing channels. This should include the partnership work that is already underway across the county and region including the work of the Local Nature Partnership. Consideration should be given to how a 'Your Green East Riding' campaign could be appropriately resourced.	East Riding of Yorkshire Council [Communications]
7	That the Council explores using land and infrastructure for carbon storage to help offset its carbon emissions that cannot be completely reduced with consideration given to additional tree planting and improving biodiversity.	East Riding of Yorkshire Council [Asset Strategy]
8	That the Council considers investing in improving rural transport links in partnership with bus operators and works with all rail companies to improve the infrastructure into local train stations including the potential to electrify the rail lines between Hull, Sheffield and Leeds.	East Riding of Yorkshire Council [Asset Strategy/ Transport Services]
9	That the Council continues to lobby the Government to introduce national changes to planning legislation to ensure that new developments are fitted with new technology to combat climate change and are built to withstand future climate change risks. Further national funding should also be sought to explore the management of climate related risks, including the delivery of flood and coastal change management projects.	East Riding of Yorkshire Council [Asset Strategy and Economic Development]

10	That the Council considers a partnership with other organisations in the East Riding such as Yorkshire Water, the Environment Agency, Utility companies and Rail and Bus companies to create a rural electric charging infrastructure.	East Riding of Yorkshire Council [Asset Strategy]
11	That the Council signs up to a Yorkshire wide Commission on climate change that has real decision making powers and encourages action to start immediately to showcase that projects can work.	East Riding of Yorkshire Council [Leader]
12	That the Council declares a Climate Emergency.	East Riding of Yorkshire Council [Members]

***Resolution by East Riding of Yorkshire Council on 24 February 2021 for additional wording**

“Recommendations 2 - 11 and also those set out at Appendix 3 of the Review Panel report to be encompassed when developing the Climate Change Strategy.”

(ii) MEMBERS OF THE REVIEW PANEL

Councillor	Political Group
Mike Medini (Chair)	Conservative
David Elvidge	Conservative
David Jeffreys	Independent
Linda Johnson	Liberal Democrat
Ben Weeks	Conservative
Paul Whitehead	Conservative

(iii) REVIEW CONTACT INFORMATION

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(iv) PURPOSE OF THE REVIEW

The aim of the review was to assess the climate related risks and opportunities to East Riding of Yorkshire Council, its residents and businesses and to investigate how the Council can act to minimise the risks and take advantage of the opportunities.

The review related to the following corporate priorities:

- Growing the Economy
- Protecting the Vulnerable
- Valuing the Environment

The review considered:

- (i) The likely impacts of climate change on the East Riding (including its residents and businesses) and Council operations and services;
- (ii) What the Council is already doing to mitigate and adapt to climate change (including what strategies, plans and policies are already in place);
- (iii) What measures can be taken to reduce the carbon footprint of the Council, its residents and businesses; and
- (iv) What further measures can be taken to increase the resilience of the Council, its residents and businesses to the impacts of climate change?

(v) FINANCIAL IMPLICATIONS

A number of recommendations within this report may have financial implications which will need to be assessed and possibly included in the Council's revenue or capital budget as appropriate, for consideration as part of the normal financial planning process. Every opportunity will continue to be taken to access external funding streams where these are available and to work with partners to

continue to ensure the use of existing resources is maximised

1. INTRODUCTION

1.1 Climate Change is having a huge impact globally and nationally in the UK. Every decade the weather is getting warmer, oceans and seas are warming and the resulting ice melt is increasing sea levels. Major extreme weather events are becoming more frequent globally and locally and rainfall patterns are changing.

1.2 According to the UK Meteorological Office (MET), these global changes "increase the risk of heatwaves, floods, droughts, and fires". They also impact on crop growth, human health and risk the extinction of many plant and animal species.

1.3 In the UK, the climate is becoming warmer and wetter and extremely warm summers are occurring more regularly.

1.4 The UK Government predicts that the UK will continue to get warmer, with drier, hotter summers and warmer, wetter winters. Winter rainfall could increase by up to 35% more with a 4.2C temperature increase and summer rainfall could decrease by up to 47% with a 5.4C temperature increase.

1.5 UK Climate Projections (UKCP18), updated in March 2019, are the latest available predictions for the impact of climate change on the UK. The projections are based on weather and climate observations, global climate models, collaborations with partners, MET office climate simulations and global and local data collection.

1.6 The UKCP18 initial findings state that:

- The most recent decade has been 0.3 C hotter than the previous decade and 0.8 C hotter than the 30 years prior to that, and
- There has been an increase in the annual rainfall in the UK.

1.7 These findings suggest that in the UK:

- Hot summers will become more common.
- Winters will become wetter.
- Extremes of temperature and rainfall will occur.
- Coastal flood risk will increase due to rising sea levels.

These predictions are dependent on the amount of greenhouse gases emitted and will therefore fluctuate if emissions can be reduced.

1.8 In order to reduce and mitigate Climate Change, the UK Government passed the Climate Change

Act 2008 to set carbon reduction targets. The Secretary of State determined that the UK would reduce its carbon emissions to at least 80 per cent and up to 100% of the 1990 baseline levels by 2050 using five year carbon budgets as stepping stones.

1.9 The Act also required the UK Government to carry out five year risk assessments in order to ensure that carbon emissions were reducing and that they would achieve their reduction target by 2050. An independent Committee on Climate Change was established to advise the Government on how to achieve their target and monitor progress.

1.10 In December 2015, the UK signed the Paris Agreement with 195 other nations, all committing to reducing carbon emissions in order to mitigate the impacts of climate change.

1.11 In January 2019, following the Intergovernmental Panel's report on Climate Change in October 2018, local UK councils began declaring Climate Emergencies despite the legal duties around Climate Change sitting with Central not Local Government.

1.12 In May 2019, the UK Government announced a Climate Emergency and in June 2019 made a revision to the Climate Change Act 2008. They stated that carbon emissions would be cut to net-zero by 2050; a far more ambitious target that would have a much greater impact on Climate Change.

1.13 In July 2019, the new Leader of East Riding of Yorkshire Council, Councillor Richard Burton, suggested that the Council's Overview Management Committee urgently instigate a Review Panel which would examine how the Council and the East Riding as a place could best mitigate and adapt to predicted climate change.

1.14 At its meeting on 12 September 2019, Overview Management Committee agreed a scope for the Climate Change Review Panel and requested it commence as soon as possible.

1.15 The East Riding of Yorkshire Council Climate Change Review Panel therefore held its first meeting on 17 October 2019.

Local Facts and figures

1.16 The county of East Riding of Yorkshire covers 930 square miles.

1.17 East Riding of Yorkshire Council delivers services to approximately 341,173 residents.

1.18 As one of the area's largest employers and consumers, the Council recognises that it has a huge impact on the environment and has listed

"Valuing the Environment" as one of its five corporate priorities.

1.19 The Council has therefore already committed to managing its own environmental impacts and to encourage others to do the same.

1.20 The Council has an ambition to be net-zero carbon by 2050 in line with the Governments' target.

2. SETTING THE SCENE

2.1 As an introduction to Climate Change and the role of Local Authorities in mitigating it, the Panel held a workshop with the Association of Public Services Excellence (APSE) Energy, a not for profit local government body that works with 114 UK Councils.

2.2 APSE Energy advised that there was significant public pressure on Councils to show leadership on the Climate Change agenda and that the creation of a Review Panel by East Riding Council showed their commitment to take action. Whilst councils declaring a Climate Emergency has become the main focus, it is more important that the Council is taking action and has a plan in place.

2.3 Often the Climate Change agenda is viewed in a negative way by the press detailing what the public have to give up such as meat or air travel in order to reduce climate change. However, councils could view it in a positive light as an economic opportunity and a way to create jobs, as a way to achieve better health outcomes, improve air quality and provide more targeted services.

2.4 It was important for the Panel to recognise that councils could only commit to a target of net zero for their own services and activities. It would be impossible to create no carbon emissions at all but emissions could be significantly reduced with the remainder offset.

2.5 Councils could also aspire to influence businesses, groups and residents in the wider area and lead by example.

2.6 Alongside the community leadership role, the Council has a planning role that could be used to demand higher standards on energy reduction on new public and private buildings.

2.7 As a public authority, East Riding of Yorkshire Council has a legal duty and responsibility to run public services and its funding cannot be used on climate change reduction measures. However, it can establish its current carbon emission levels, determine what they could be reduced to and commit to offsetting the remainder.

2.8 In order to reduce carbon emissions, climate change would need to be embedded in every Council Strategy, policy and plan but balanced against resources and financial obligations to provide value for money.

Key Findings

2.9 **Committing to using renewable energy is different to carbon reduction. Using renewable energy is also a way of carbon offsetting.**

2.10 **There are three levels of emissions:**

- **Direct emissions (what the Council produces - scope 1).**
- **Electricity emissions (what the Council uses and the carbon that generation produces - scope 2).**
- **Indirect emissions (that suppliers or partners use - scope 3).**

2.11 **The Council can commit to reducing and offsetting its own direct emissions (scope 1 and 2) but it cannot control the indirect emissions (scope 3).**

2.12 **The Council must therefore be transparent on what it is and is not including when it declares the changes it will be making in relation to carbon emissions and this must only be in relation to its own services.**

2.13 **The Council must also be realistic with goal setting as setting unachievable goals would lead to reputational damage.**

2.14 **The Council's current emissions stand at 32,047 tonnes per year. The Council needs to find interventions to reduce carbon emissions by at least 9,370 tonnes over the next 10 years in order to meet the fourth carbon budget trajectory, in line with current national targets towards Net Zero.**

3. COUNCIL STRATEGIES AND POLICIES

Environmental Policy and Environmental Management System

3.1 East Riding Council has had an Environmental Policy since 2006 which is "a statement of the aims and principals of an organisation in relation to its overall environmental performance"... (source BS EN ISO 14001).

3.2 The Environmental Policy is supported by the Environmental Management system which analyses strengths and weaknesses, increases efficiency and ensures compliance with environmental legislation.

3.3 In January 2010, the Council achieved ISO14001 Certification for all Council services, excluding schools. This is the internationally recognised standard for Environmental Management which allows organisations to maintain efficiency whilst reducing environmental impacts.

3.4 The Environmental Management System allows the Council to prove that it:

- Values the environment.
- Is legally compliant with environmental law.
- Provides value for money by reducing waste, travel costs and energy usage.
- Monitors environmental performance.
- Develops awareness of environmental performance with all its staff.

3.5 By having an Environmental Policy the Council is committed to protecting the environment and preventing pollution across its services and operations (See the policy statement for further details).

3.6 The Environmental Policy is regularly reviewed and updated and in 2014 was broadened to include climate change by making two environmental commitments to:

- Adapt Council services making them more resilient to the predicted impacts of climate change, and support external partners and communities to become more resilient, and
- Reduce or manage local causes of climate change through appropriate mitigation.

3.5 The Environmental Policy, which is externally audited, has shown that the Council has already made significant achievements towards mitigating climate change. The environmental policy will undergo a comprehensive review in 2021 to further consider the role of the Council in mitigating and adapting to the impacts of climate change.

Economic Strategy 2018-2022

3.6 Whilst recognising the need to reduce its own emissions, the Council is committed to working in partnership to support the local economy.

3.7 The East Riding has an industrial base which includes several high emission facilities and as a large unitary authority, has a large number of residents all producing emissions.

3.8 The Economic Strategy has therefore been developed to support the local economy whilst also working towards a more sustainable economy. Priority 4: Sustainable Economy (of this Strategy) promotes the use of resources for a longer time to extract all their value to promote economic security and environmental sustainability.

- 3.9 The Strategy recognises that natural ecosystems have economic value alongside social value and therefore the conservation of the East Riding's natural environment is a strategic aim. However, the Strategy does not detail how that should be achieved.
- 3.10 The Economic Strategy is aligned with the East Riding Local Plan and the Local Transport Plan but is currently not aligned with the Climate Change Act.
- 3.11 The Economic Strategy is also aligned with partnership strategies across the Yorkshire and Humber region. These include the Humber Local Industrial Strategy and the Humber Local Energy Strategy. These strategies have challenging climate change targets and require partnerships, and businesses across the region and Country to collaborate.
- Rural Strategy
- 3.12 As a rural local authority, the Council has developed and maintained a Rural Strategy since 1998 which is jointly delivered with the East Riding Rural Partnership to support the climate change agenda.
- 3.13 The Rural Strategy recognises that rural development and the farming and food sectors can have an impact on climate change and these are often the first sectors to feel the impacts.
- 3.14 The Rural Strategy therefore recognises the need for partnerships and networks across the county to work together to address the key climate change issues.
- 3.15 The goal of the Strategy is "People of all ages can live, work and thrive in the *Rural East Riding*, which is itself vibrant and sustainable" (See link to the Strategy at the end of the report for further details). With six key objectives, the strategy is reviewed annually and monitored for effectiveness.
- 3.16 Countryside management can have a huge impact on climate change and therefore working with farmers to have good land management practises is a large part of the Strategy alongside the delivery of sustainable rural development working alongside rural communities. By bringing economic, social and environmental issues together, the Rural Strategy and the Rural Partnership, with 25 active members representing their communities, has been enormously successful and will continue to have greater significance in the future to enable the Council to achieve its climate change targets.
- The East Riding Local Plan
- 3.17 The East Riding Local Plan has a wide remit that includes understanding the risks from climate change and determining the adaptations and mitigations that are needed to manage these risks. (See the links to the full Plan at the end of this report).
- 3.18 The overarching aim of the planning system is to contribute to the achievement of sustainable development balanced against the three overarching objectives of the economy, society and the environment. Planning at a local level must comply with the National Planning Policy Framework which includes "*mitigating and adapting to climate change, including moving to a low carbon economy*".
- 3.19 The Council therefore supports new development which incorporates reduced levels of greenhouse gas emissions and necessary adaptations to deal with the impacts of climate change. There is less development away from rural settlements in part due to the lack of public transport to reduce the use of private vehicles which contribute to climate change.
- 3.20 The Local Plan recognises that climate change is likely to increase over the plan period and changes include: more intense rainfall and varied groundwater recharge rates, increased flooding and coastal erosion due to rising sea levels and more extreme temperatures in both summer and winter.
- 3.21 To minimise the impact of climate change, the Local Plan has a set of objectives with the first being to,
"Contribute to reducing emissions which cause climate change and ensure that the local impact of climate change, including rising sea levels, increased rates of coastal erosion and more frequent flooding events, are minimised, managed and adapted to".
- 3.22 The objectives of the Local Plan are met through planning policies that guide the Council's decision making on planning applications. There are 14 development expectations that developers should satisfy where appropriate to the proposal put forward. (See Appendix 2). The nature and design of new developments are therefore a key issue for the Local Plan and those that seek to minimise their environmental impact will more likely meet the development expectations.
- 3.23 The Local Plan is also intended to effectively manage the need to adapt to the increased risk of flooding across the East Riding. Policy has therefore been designed to manage flood risk and coastal change. The Strategic Flood Risk Assessment and the Sustainability Appraisal both feed into the Local Plan to include the specific impacts of climate change on decision making.

3.24 The intention of the Local Plan is to avoid development in flood risk areas where possible and in areas of flood risk where there is a need for further housing, such as Goole, to allow for flood alleviation schemes.

3.25 Carbon capture and sequestration are emerging technologies that are likely to be incorporated into future Local Plans such as requirements for developers to plant trees to capture carbon.

3.26 The Council would like to see changes to national planning regulations to make all new developments have better insulation, triple glazing, solar panels, carbon capture and efficient airflow systems as standard and have been lobbying central Government. However, developers have been lobbying against national regulations as the technology is very expensive and would lead to increased costs for developers which they would need to pass on to buyers.

Local Flood Risk Management Strategy and Flood Risk Management Plans

3.27 The East Riding Local Flood Risk Management Strategy is a statutory document that sets out how the Council and its partners intend to manage the risk of flooding up to 2027 and beyond. With the predicted increase in winter rainfall and reduction in summer rainfall, alongside temperature increases, movement of water will become much more important in the UK.

3.28 Nationally 700 properties could be affected by coastal erosion by 2040 and 5.2 million homes are at risk of flooding. (See the East Riding Flood Review Panel Report 2017 for further detail). East Riding of Yorkshire Council currently maintains 9km of coastal defences.

3.29 The East Riding is vulnerable to all sources of flooding. The coastline is susceptible to coastal erosion and tidal surges and many built up areas have rivers running through them that could potentially overtop their banks. Flood alleviation schemes along rivers and potentially across the whole Humber estuary are likely to be needed in the future.

3.30 The Council is the Lead Local Flood Authority and working with partners such as the Environment Agency, Yorkshire Water and Internal Drainage Boards has developed a Flood Risk Management Plan with climate change at the forefront. The partnerships work together on building large flood alleviation schemes to accommodate severe weather events based on changing climate change predictions.

3.31 National funding for flood alleviation schemes is only £450 million annually up to 2021 and needs to be significantly increased to around £1 billion.

Whilst the East Riding has one of the largest flood and coastal risk management capital investment schemes of any local authority in the country this will need to increase significantly to maintain existing schemes as well as to implement new schemes.

3.32 There needs to be a recognition that all sources of flooding cannot be stopped by the Council and residents need to take action to mitigate for flooding such as signing up for flood alerts, put in permeable areas on their land and collect rain water runoff in water butts. Communities are being encouraged to develop local flood plans and take precautions early and to build community resilience and personal responsibility.

Local Transport Plan

3.33 The Government has placed a statutory duty on all transport authorities outside London to produce a Local Transport Plan. This plan should contain strategies and policies detailing how local transport networks will be maintained and improved.

3.34 The Council's first Local Transport plan was published in 2001 with the latest update published in 2015 to cover the period 2015 to 2029 in line with the Council's Local Plan.

3.35 Petrol and diesel cars are accelerating climate change and the transport sector in the UK represents 26 per cent of all greenhouse gas emissions. The Council has a statutory duty to try to reduce car ownership but as the East Riding is predominantly rural, with scarce public transport, reducing all private car usage would be impossible. The Government has pledged to ban the sales of petrol and diesel vehicles from 2030, therefore local Councils may have to do the same.

3.36 The Local Transport Plan has six objectives; Objective 3 is "Reduce Carbon Emissions" (see the Local Transport Plan for further details). In order to achieve this, the Council are encouraging walking and cycling as an alternative to short car journeys. Local Cycling and Walking Infrastructure Plans have been developed for the 14 main settlements across the East Riding. Cycling routes have been linked, new secure cycle parking has been introduced and pedestrian crossings have been increased.

3.37 The Government has offered funding for electric vehicle charging points which the Council successfully bid for to install in public car parks across the county under its Public Electric Vehicle Infrastructure Strategy. Chargers have been installed in Bridlington, Driffeld, Goole, Hessle, Pocklington and Withernsea with more to follow under the strategy.

3.38 Road improvements have been made to prevent cars idling in traffic queues adding to climate change such as the southern relief road in Beverley. Highways are being maintained using materials that can cope with warmer, wetter conditions using techniques that can prolong their life. As a member of Transport for the North, the Council has helped to negotiate additional trains per hour between Hull and Leeds.

3.39 The Council has encouraged its own staff to make fewer car journeys, to car share, work from home and use public transport and also introduced a bike scheme to encourage cycling. By investing in broadband, many East Riding staff are able to take up the Council's agile working scheme.

Carbon and Energy Management Strategy

3.40 The aim of the Carbon and Energy Management Strategy is to set out ambitious but achievable carbon reduction targets. It will detail the Council's previous, current and ongoing work to reduce energy consumption, costs and carbon emissions across all its corporate buildings, maintained schools, social housing, street lighting and transport.

3.41 A number of projects have already been undertaken on corporate buildings to reduce the Council's reliance on fossil fuels and to reduce carbon emissions:

- Photovoltaic panels have been installed on corporate buildings at a cost of £1.8 million which generate 600 Mega Watt hours (MWh) per year and save 320 tonnes of carbon emissions.
- Over 30 corporate buildings have received improved insulation to reduce heating costs and energy consumption to reduce carbon emissions. Underused properties have been removed from the portfolio which has also reduced heating and energy consumption.
- Photovoltaic panels have been installed on some of the Council's social housing which has generated 742MWh per year, saved 393 tonnes of carbon emissions and reduced the energy costs for tenants.
- 93 houses have benefitted from external wall insulation which has reduced heat loss and the amount of fuel needed to heat them.
- Seven of the Council's maintained schools have been fitted with high efficiency biomass boilers resulting in reduced running costs and lower carbon emissions.
- A ground source heat pump has been fitted at Kings Mill special school which provides low carbon heat and provides an income through the renewable heat incentive scheme.
- 30 schools have received 50 per cent match funding for cavity wall and loft insulation

which has reduced their energy consumption and reduced their bills. A further 28 schools could be helped in phase 2 of the scheme.

3.42 Under the Carbon and Energy Management Strategy, feasibility studies have been undertaken into the suitability of energy networks across the East Riding. These supply low carbon heat and power from a central source directly to homes, businesses and council buildings via underground pipes generated by a gas combined heat and power unit. The first energy network is likely to be in Beverley and will initially connect several council buildings, the Minster and 79 council houses with expansion to other public and private buildings in future years. Work is also underway for an energy network in Goole in partnership with private companies.

3.43 Under the Carbon and Energy Management Strategy, a photovoltaic solar farm is planned for Bridlington which could generate 400MWh of electricity and a carbon emission saving of 72 tonnes. Other sites are also being investigated for solar farms. Solar Car Ports at leisure centres are being investigated which could generate 52MWh and save 10 tonnes of carbon emissions.

3.44 Collection of energy data is a priority under the strategy. The Council records all its energy generation figures in order to claim government subsidies to finance further carbon reduction or energy generation schemes. The strategy led to the Council securing a high feed in tariff rate which generates funding of around £350,000 per year for reinvestment.

3.45 As a result of the energy efficiency work undertaken, the Council won an energy efficiency award at the Local Government Chronicle Awards in 2014.



Procurement Strategy

3.46 There is primary legislation in the UK that regulates all public contracts within defined thresholds. This primary legislation has been incorporated into the Council's Procurement Strategy and its constitution. Through the strategy the Council has stated, "We will seek to embed social, environmental and economic benefits to

the community throughout the whole supply chain”.

- 3.47 As a major buyer in the region, the Council spends around £348 million per year on third party suppliers, £91 million on construction, £132 million on health and care and £125 million on goods and services. The procurement team are responsible for sourcing goods and services for all Council services.
- 3.48 In order to show environmental good practice, the Council has already consolidated its catering orders to fewer companies and limited the frequency of deliveries to reduce journeys and used local suppliers. Catering supplies are also procured for North Lincolnshire Council to benefit from economies of scale.
- 3.49 When awarding contracts, the Council weighs criteria to include the environmental benefits alongside cost benefits and also work with suppliers to lower their environmental impacts. The Council’s frozen food supplier has recently become carbon neutral across their whole fleet.
- 3.50 All Council Information Communication Technology (ICT) purchases have been rationalised so that fewer multi-functional devices are purchased and are all energy star rated and set to power saving modes. Where public transport is procured, all vehicle emissions are checked, older vehicles are prohibited and journey to school routes are optimised to reduce fuel consumption.
- 3.51 The Council is a member of LASER, the county council arm, which is the largest utility buying organisation consisting of over 100 councils, with the most recent successful bidder supplying 31% renewable energy. The Council also runs the collective YORswitch scheme for residents with the latest successful bidder (and all future bidders) supplying 100% renewable energy to 1,400 residents.
- 3.52 The Council run supplies service provides goods to the Council and to schools and now offers over 600 environmentally friendly products. There will no longer be a paper catalogue for this service and many products are recycled. As a trading arm, supplies cannot enforce the purchasing of environmentally friendly goods as many schools are on a limited budget but there was a drive towards these goods.
- 3.53 The Council did not always purchase the cheapest goods or services as quality was important to balance with cost. Weighting was applied at around 50 per cent cost and 50 per cent environmental factors. Life cycle costing was also evaluated alongside the environmental management systems of the supplier as part of the decision making process.

Key Findings

- 3.54 The Environmental Policy has recorded that:
- CO2 emissions from Council operations reduced by almost 20% between 2014/15 and 2017/18.
 - A number of flood alleviation schemes have been completed to protect businesses and homes from extreme weather events and sea level rises (See the report of the Flood Review Panel 2017 for further details)
 - Engagement has been had with over 200 residents and businesses impacted by coastal change
 - Objectives have been included in the East Riding Local Transport Plan to encourage sustainable travel.
- 3.55 The Economic Strategy and its partnerships are essential for county and region wide collaboration to achieve climate change targets but need to align more closely with the Climate Change Act 2008.
- 3.56 The Rural Strategy and the Rural Partnership have brought local rural communities together to work in partnership to tackle climate change and increase the profile of sustainable development in the rural East Riding but as yet the strategy does not include a carbon reduction or offsetting objective.
- 3.57 The Local Plan, aims to ensure sustainable development in the East Riding but national planning policy is lacking in the requirement for all developers to install new climate change technology.
- 3.58 Whilst the Council is working with partners to develop large scale flood alleviation schemes to deal with severe weather events and has a county wide Local Flood Risk Strategy, local communities need to build their own resilience and have local flood plans as it is not possible to stop all sources of flooding.
- 3.59 The Local Transport plan clearly sets out the Council’s ambitions to reduce carbon emissions from cars and vehicles across the county but due to its rurality, the use of private vehicles is unlikely to reduce significantly unless there are major, costly improvements to local public transport networks and sufficient additional funding provided to allow electric car charging points to be installed in rural locations.
- 3.60 The Carbon and Energy Management Strategy will ensure that the Council is on track to meet its carbon reduction target by 2030 but more ambitious targets and major

investment will be needed to reach net zero carbon emissions by 2050.

- 3.61 The Panel could see that the Council had a robust Procurement Strategy and processes in place but felt that if ambitious carbon reduction targets were to be met, more emphasis would need to be placed on the sustainability of goods and services rather than the cost.

Recommendation 1

That the Council develops a Climate Change Strategy within twelve months. Working with partners this should include a vision statement for its ambitions on climate change across the county. This will be linked to an action plan that identifies key opportunities for climate change mitigation and adaptation in the East Riding. A review of the Council's Environmental Policy will establish corporate objectives on the environment, including climate change and help ensure that all departments are able to adapt to its impacts and include environmental actions in their service plans. Recommendations 2 - 11 and also those set out at Appendix 3 of the Review Panel report to be encompassed when developing the Climate Change Strategy.

Recommendation 2

That the Council commits to reviewing its procurement procedures to ensure that environmental factors are fully considered and appropriately weighted when analysing potential contracts.

4. LOCAL RENEWABLE ENERGY

- 4.1 The Government has supported offshore wind and recognised the economic benefits of new sites across the UK such as employment and infrastructure projects and this has attracted the interest of several large multi-national companies to the UK. Many of which have recognised the potential of the Humber region and the East Yorkshire Coast.
- 4.2 Orsted is a company that develops, constructs and operates offshore and onshore wind farms to produce energy. They have four offshore windfarms in operation off the Lincolnshire and East Yorkshire Coasts, two in construction off Hornsea and two more under development.
- 4.3 Orsted's vision is "a world that runs entirely on green energy. We want to be a company that provides real, tangible solutions to one of the world's most difficult and urgent problems" Orsted, 2020. (See the Orsted website).

- 4.4 Orsted see offshore wind sites as a global opportunity to export electricity to international markets. The Humber Region was a good location for them and they had sites on the south bank at Grimsby and Immingham. They also linked in with Siemens on the North Bank plus the University of Hull, Associated British Ports and other large partners.

- 4.5 Orsted projects in the East Riding include:

- Hornsea 1 – an offshore wind farm which would ultimately supply 1 million homes.
- Hornsea 2 – a smaller windfarm with larger turbines which would land electricity at South Killingholme. Lincolnshire.
- Hornsea 3 – another windfarm that would land electricity in Lincolnshire with consent expected in 2020.
- Hornsea 4 – a very large wind farm that would land electricity at Creek Beck in the East Riding and currently in the pre-application phase.

- 4.6 Orsted aim to deliver a world leading offshore wind industry. The offshore wind industry as a whole is currently generating 7.9 GW of electricity which amounts to 8.5% of the country's electricity, with 11,000 employees and exports of £0.5 billion per year. By 2030, 30 GW of electricity should be generated amounting to 35% of the country's electricity, there could be 27,000 employees and £2.6 billion per year in exports. By 2050, the offshore wind industry plans to generate 50GW of the country's electricity, provide 39,000 skilled jobs and have exports of £5.1 billion. In order to reach these ambitious targets, further offshore wind sites would be needed with the potential for many of these to be off the East Riding Coastline.

- 4.7 Whilst generating clean electricity is Orsted's main business, it was also expanding into other areas such as carbon storage as a way to help businesses which were high carbon emitters to decarbonise. The storage of electricity needed additional work and the possibility of using wind to create hydrogen was also a potential future project.

Key Findings

- 4.8 The Panel were unaware of the scale of the large off shore wind farms and considered that the public would be equally unaware.
- 4.9 The cabling due to cross the East Riding from the Hornsea 4 project would benefit residents and bring in income for the Council via non-domestic rates. There were eight separate cables that would be rated and the rates could be retained as they were generated by renewable energy. The project would also generate additional jobs such as sub-contractors.

4.10 Orsted did not specifically look at attracting tourism but contractors and business contacts did need to visit the Orsted offices and often needed to stay in local hotels which boosted the economy.

4.11 The East Riding of Yorkshire area therefore benefits from green energy companies locating themselves in the Humber region and should therefore capitalise on the employment and income generating opportunities they bring.



Recommendation 3

That the Council considers undertaking viability studies into the use of hydrogen as a fuel in areas where partnership arrangements could be put in place to share costs and benefit from reduced carbon emissions.

5. GOVERNMENT STRATEGY

5.1 The National Climate Change Act sets out legally binding carbon budgets and steady progress is being made towards the deadline of 2050. In 2019 the UK government set a legally binding target to achieve net zero greenhouse gas emissions across the UK economy by 2050. Heat is a major part of the economy and accounts for a third of UK carbon emissions.

5.2 Meeting net-zero carbon targets will require virtually all heat in buildings to be decarbonised, and heat in industry to be reduced to close to zero by 2050. Decarbonising gas to the same degree as electricity is much more difficult and the options to do so are less mature. It is possible to add 20% hydrogen to existing gas grid before there are serious technical problems.

5.3 The Department for Business, Energy and Industrial Strategy has produced several advisory documents including The Clean Growth Strategy. The Clean Growth Strategy sets out that Heat networks are expected to play a significant role in decarbonisation of heat.

5.4 Heat source networks could be stand alone for each house or in groups for businesses thus improving economies of scale. The larger the scale of the heat network, the more viable the heat network and the bigger the kit used, the cheaper the unit is. These systems also capture waste heat

and would work better as community wide networks which was being promoted by the Climate Change Committee.

5.5 The Heat Network Delivery unit was available to help local authorities investigate the feasibility of heat networks. £320 million of capital funding could leverage £1 billion of private investment. The unit was established in 2013 and was in its ninth round of project development funding, £20 million in grants had been issued so far and 50-67% of funding was still available. They were working with Local Authorities, Home England and the Coal authority with over 220 projects started and over 500 project opportunities identified.

Key Findings

5.6 There was a lot of interest in heat networks but many companies were waiting for the technology to be cheaper. It was a possibility that future national planning guidance could be implemented that ban the use of gas into new developments then heat networks would need to be considered.

5.7 The Panel recognised the importance of accessing Government grants to determine whether heat networks were a viable option for installation across the East Riding. As heat networks could become mandatory in the future, it was essential that the Council embraced this new technology and utilised the funding whilst it was still available.

5.8 The Council had been hoping to pilot a heat network at Beverley Leisure Centre but the project had been challenged by local residents and was subsequently refused planning permission. The reasons had been due to a misunderstanding that the project would generate noise or vibrations but in reality that was not the case. Planning permission had been reapplied for and the Panel hoped that this first project would be a success and could therefore be replicated in other areas across the county.

Recommendation 4

That the Council considers joining the UK 100 group and buying only renewable energy, generating more of its own electricity and implementing more heat networks utilising grants and support from the Department for Business, Energy and Industrial Strategy.



6. AGRICULTURE, LAND MANAGEMENT AND THE NATURAL ENVIRONMENT

Agriculture and Land Management

- 6.1 The East Riding has a varied geology and topography with a third of land needing actively draining because it is low lying. The management of soil is likely to become a much bigger issue in the future as 90 per cent of the East Riding is agricultural land. The majority of the land is currently flat open arable land and food production is a valuable resource to the county. However, in the future, farmers are more likely to need to diversify and deliver other services, including land access and nature preservation, alongside food production.
- 6.2 Over 90 per cent of the agricultural land in the East Riding is classified as being of excellent, good or good/moderate quality and therefore is important for revenue generation.
- 6.3 Although farming has historically been centred on food production, it is increasingly being recognised as an important tool in reducing climate change.
- 6.4 The National Farmers Union have set a goal for the farming industry to be net carbon zero by 2040. Farming is already responding to climate change by reducing their emissions of greenhouse gases and by reducing their vulnerability to climate change effects. Some farmers are employing new science and technology and considering the use of artificial intelligence and nationally genetics was being used to generate new strains of grains and cereals that would be better resistant to the effects of climate change.
- 6.5 The NFU is working closely with farmers to increase their business resilience as there was significant variation between the performance of large and small farms and thus their ability to adapt to climate change.
- 6.6 Scientists were able to calculate Carbon Dioxide (CO₂) emission levels accurately and could apply this to the farming sector. East Riding farmers do

not have as high emission rates as some other areas that farmed cattle. Farming as a whole is very fossil fuel intensive and had historically used chemical fertilisers which both impacted on climate change. Transportation and the use of large farm vehicles meant that emissions remained high. As this large farm machinery is very expensive, it was unlikely that farmers would want to replace them with electric versions until they had come to the end of their life span. Some farmers were moving towards collective working and hiring in or sharing large expensive vehicles such as combine harvesters but that did not reduce their emissions, just their balance sheet.

Key Findings

- 6.7 The LEADER programme (EU initiative to support rural development) was run by the Council and had been awarding grants to support farmers responding to climate change and reduce their carbon emissions.
- 6.8 Farming has been directly regulated by policy since 1940 and more recently has been given support from Government public benefit schemes. This support has been more to support public benefit schemes such as land access and to encourage biodiversity rather than to provide assistance in producing food.
- 6.9 The Council works in partnership with local growers to help them utilise more sources of renewable energy such as wind turbines and solar power. The Council employs a sympathetic stance on planning for schemes that incorporated renewable energy sources. Many growers were utilising biomass facilities and smart glass that generated its own electricity and new technologies that incorporated energy saving schemes.
- 6.10 The Panel recognised that in the future, farmers will need to consider offsetting their emissions using their own land, will be increasingly asked to use their land for flood management, face financial issues caused by significantly more rainfall in the winter but drought conditions in the summer and the loss of EU subsidies, and have an important role to play in habitat restoration in order for land to be used as natural carbon storage.
- 6.11 The Council's membership of the Rural Partnership is essential to assist farmers and landowners to adapt to and mitigate for climate change. The partnership consists of Bishop Burton Agricultural College, farmers, landowners, the national farmers union, and the country land and business association. It is therefore important that the rural strategy is aligned with the suggested overarching Climate Change Strategy.

Recommendation 5

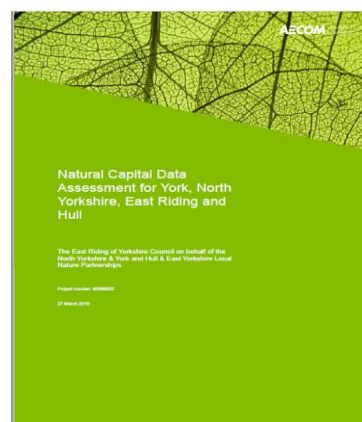
That the Council develops partnership working by building on existing relationships and creating new ones and helps influence behaviours and ambitions on climate change in both the public and private sector including offering help and guidance to residents, schools and businesses on how they can reduce their carbon footprint.

Natural Environment

- 6.12 The Environment Bill is currently advancing through the parliamentary process and should shortly receive Royal Assent. The Bill will contain targets for all public bodies to achieve to ensure that the Government's target of net zero carbon by 2050 is possible. It is likely that the bill will introduce regular reporting requirements and will impact on many of the Council's activities due to a requirement to 'conserve and enhance biodiversity'.
- 6.13 The Council already has an adopted Environmental Policy in place along with a certificated Environmental Management System alongside environmental policies included in the Local Plan. These allow the Council to deliver environmental improvements across its service areas by managing its functions to minimise and control environmental impacts. Any new developments by the Council should have inbuilt natural solutions to minimise carbon emissions and increase climate resilience.
- 6.14 The Council also supports a wide range of environmental partnerships that are working to protect and enhance the natural environment and to adapt the environment to climate change. The health of the natural environment has critical links to the economy as visitors to the coast and other natural sites is worth £757 million. This natural capital is essential to developing a sustainable green economy.
- 6.15 The Government's Environment Bill will also introduce Biodiversity Net Gain which will operate within the planning system. Planning applications will be required to demonstrate 10 per cent net gain in biodiversity units in all cases i.e. developers would have to increase the biodiversity of any sites that were proposed for development. In cases where that was not possible, the developer would have the opportunity to deliver increased biodiversity offsite. There is the potential for the Council to work with developers and Natural England to identify suitable sites. There is potential for habitat creation to be utilised for carbon storage which would be advantageous in relation to climate change targets.

Local Nature Partnership

- 6.16 The Government has ambitious national environmental policies and intend to become net zero carbon by 2050 under the 25 Year Environment Plan which considers:
- Climate Change
 - Pollution
 - Sustainable use of resources
 - Minimising waste
 - Natural heritage
 - Air and water quality
- 6.17 The Hull and East Yorkshire Local Nature Partnership (LNP) is working to promote natural solutions to climate change by encouraging investment in natural assets. The natural capital concept ensures that the natural environment is considered in all decision making.
- 6.18 The LNP is working on a number of projects to support direct investment into a range of habitats that would in turn offset carbon emissions. These projects also aim to grow the local green energy market and create more employment in the sector in order to achieve ambitious climate change ambitions.
- 6.19 Many habitats can draw down and lock in carbon if they are not disturbed (sequestration) or ploughed up. The LNP is therefore working with farmers to explore the potential for managing hedgerows, leaving buffer strips between fields and planting grass at the margins. With changes to agricultural subsidies, farmers could improve the countryside whilst being rewarded for their stewardship of the land.
- 6.20 Trials were also underway with the Yorkshire Marine Nature Partnership to calculate the potential for marine and coastal habitats to absorb carbon.



- 6.21 The LNP is hosted by the Council's sustainable development team which supports and collaborates with a number of environmental partnerships working across the East Riding.
- 6.22 The Local Nature Partnership has also recently commissioned a Biomass Biodiversity Feasibility

Study to explore the use of vegetation from semi-natural habitats as feedstock for anaerobic digestion companies. This could help grow the local renewable energy sector, increasing biodiversity across a range of habitats and create new revenue streams for managing biodiversity on farmland, nature reserves, local wildlife sites and road verges.

Key Findings

- 6.23 The Council has a sustainable development team who help to integrate biodiversity into all the Council's services. They also lead on the Local Wildlife sites partnership which surveys the best examples of natural and semi-natural habitats.
- 6.24 The Council is engaged in a range of environmental partnerships across the county which work at different scales but all have a role in mitigating and adapting to climate change. These include:
- Hull and East Yorkshire Local Nature Partnership
 - East and North Yorkshire Waterways Partnership
 - East Riding Rural Partnership
 - Hull and East Riding Catchment Partnership
 - Yorkshire Derwent Catchment Partnership
 - Flamborough European Marine Site (EMS) Management Scheme
 - Yorkshire Marine Nature Partnership
 - East Riding of Yorkshire and Kingston upon Hull Joint Local Access Forum
- 6.25 The HEYwoods project, run jointly with Hull City Council, has been very successful in delivering tree planting on publically owned land to create woodland. The project feeds into the Northern Forest plan to plant 50 million trees across the major cities in the north of England.
- 6.26 The Hull and East Yorkshire Local Nature Partnership is working to encourage investment in natural assets at a local level and to identify natural solutions to deal with the effects of climate change. This partnership is working to turn strategic aims into on the ground action.
- 6.27 The Panel support the Council's involvement in a wide range of partnerships that are working to enhance the quality and quantity of the county's natural environment. The projects underway, whilst increasing biodiversity and natural capital, will also help to reduce carbon emissions, reduce the

impact of flooding and improve air and water quality thus making the East Riding a more attractive place to live and visit.

- 6.28 The Panel consider that the Council is in a good place to adapt to any future requirements laid down by the Environment Bill.

Recommendation 6

That the Council promotes its achievements on climate change through new and existing channels. This should include the partnership work that is already underway across the county and region including the work of the Local Nature Partnership. Consideration should be given to how a 'Your Green East Riding' campaign could be appropriately resourced.

Recommendation 7

That the Council explores using land and infrastructure for carbon storage to help offset its carbon emissions that cannot be completely reduced with consideration given to additional tree planting and improving biodiversity.

7. MUNICIPAL WASTE MANAGEMENT

- 7.1 The Council's Resource and Waste Strategy was launched in 2018 in order to govern the way that waste is managed. Municipal waste is defined as disposable materials generated by households and business and can come from household bins, waste taken to recycling sites, street cleansing, beach cleansing, gully waste and bulky collections. The Council collects over 200,000 tonnes of municipal waste annually.
- 7.2 Since 2003, the Council has introduced paper recycling, food waste recycling and garden waste collections. Residual waste tonnage has been reduced so significantly that the Council has been named top recycler for the last three years.
- 7.3 All the waste that is collected is sent to waste management contractors for either disposal or recycling and the contracts in place specify that waste should be diverted from landfill wherever possible. Contractors must also have their own carbon management plan in place to show how they are making carbon savings and environmental management systems in place to maximise fuel efficient and consider their consumption.
- 7.4 The Council provides green wheelie bins for unrecyclable waste, a blue bin for paper, plastics and glass and a brown bin for both food and garden waste in order to encourage home recycling. Food waste could go to Anaerobic Digestion plants but is currently composted and given to residents. A fortnightly collection scheme has been in place since 2012 which works well. Refuse collection rounds are tightly scheduled on

a fortnightly basis and to reduce the carbon footprint but may need to be increased in the future as more houses are built in the area.

- 7.5 Existing refuse vehicles were not electric and currently cost £160,000 to purchase. The cost of purchasing new electric vehicles was £500,000 and this cost was currently prohibitive.

Key Findings

- 7.6 In 2010/11 over 100,000 tonnes of waste in the East Riding was sent to landfill but this has been significantly reduced to 539 tonnes in 2018-19.
- 7.7 The Council has a recycling rate of 64.8 per cent compared to the national rate of 44.7 per cent against a national target of 50 per cent, which the Panel recognised as a significant achievement.
- 7.8 National recycling targets were likely to change due to Brexit from the current EU target of 65 per cent of municipal waste recycled.
- 7.9 The Council's recycling success can be attributed to the introduction of recycling trials that ran for up to two years and fully engaged with residents and staff before being rolled out alongside the willingness of residents to have an impact on climate change. Proactive campaigns have seen the recycling rates increasing year on year. Text reminder messages reach 65,000 residents and reminder tags on bins reach all residents. Bin collection calendars are delivered annually and give information on what can be put in each bin and targeted social media campaigns have proved very successful.
- 7.10 As recycling sites with better technology open across the UK such as the Redcar site that recycle plastic bottles straight back into plastic bottles and plastic pots straight back into plastic pots, recycling is likely to become much easier and cheaper for Councils and recycling rates will continue to increase.
- 7.11 The Panel would like to see a publicity campaign, similar to the recycling one, launched to encourage residents to make their own lifestyle changes to reduce their carbon emissions (see Recommendation 6).

8. TRANSPORT

Transport for the North

- 8.1 Representatives from Transport for the North were unable to attend a Review Panel meeting but were able to assure Panel members that work was

underway on the development of a 'Decarbonisation Pathway to 2050'. The intention was that this pathway would ensure a zero carbon transport network in the future and meet the Government's legal requirement of achieving net zero emissions by 2050 by working in partnership with its members.

TransPennine Express

- 8.2 First Group had plans to purchase 500 new trains that would reduce Trans Pennine emissions. These trains would be bi mode and therefore could run on either electric or diesel depending on the types of lines they were traversing.
- 8.3 The trains will be longer and have more seating in order to reduce the number of journeys needed and to encourage more customers on to the rail network.
- 8.4 TransPennine train stations, (Brough is the only one in the East Riding), will also be improved in order to reduce energy consumption and where possible generate their own renewable energy.
- 8.5 A plan was underway to replace all current fleet vehicles with electric vehicles where possible.
- 8.6 Any new trains travelling from Leeds to Hull or along the East Coast would have to continue to run on diesel as the lines were not electrified and the Government was not supporting this project choosing to instead concentrate on improving the lines between Leeds and Manchester, York and Newcastle.

East Yorkshire Buses

- 8.7 East Yorkshire Buses covered a large rural area and had a few depots around the county. The company had 261 vehicles, 700 workers, £30m turnover and 94 per cent customer satisfaction.
- 8.8 East Yorkshire Buses was now part of the Go-Ahead group and they allowed local managers to make decisions on the ground for the local bus routes, national express and its East Yorkshire coach holidays. The company ran bus services up to Bridlington, had 11 national express routes, ran three services from Hull to London and had holiday coaches.
- 8.9 Nationally buses were responsible for 29 per cent of all town centre expenditure, 5.8 million journeys per day and one bus was equivalent to 75 cars. Nationally bus travel was reducing but small rural towns were doing better. Buses were responsible for 1 per cent of national carbon emissions with the overall transport network totalling 25 per cent.

- 8.10 Electric buses were now available that could last all day without being charged, particularly in urban settings. Euro VI buses emitted 10 times fewer emissions than the normal diesel buses. The Bus industry as a whole was battling congested roads which was making journey times unpredictable, car parking policies (reducing costs), changes to work patterns, planning policies and clean air zones. Longer journey times and unpredictability of arrival times was putting passengers off, parking pricing of £16 per day in York made buses attractive alternatives but cheap parking in Hull did not. Workers starting or finishing work either later or earlier due to flexible working made it difficult to predict the levels of passengers. The bus companies also needed local Councils to ensure that buses could access new housing developments as part of planning processes.
- 8.11 Clean air zone are becoming more widespread nationally and these required buses to be upgraded from Euro standard V to standard VI. East Yorkshire Buses had removed all Euro II buses in 2019 and invested in 21 Euro VI buses. They had also invested in 3 Euro VI National Express Coaches and a further 8 buses were due in May. Euro VI buses had been purchased as the infrastructure was not yet available for electric buses but these buses were low carbon certified.
- 8.12 The Euro VI buses were the most financially viable buses without the Government providing financial assistance for new vehicles to transport companies. Switching to these buses would lead to an 18 per cent improvement in fuel consumption which would make a substantial difference to the £4 million fuel bill per year. Although diesel, the bus was very clean and improved air quality. Future buses could have the similar ability as trains to switch between electricity and diesel. Hydrogen was also being investigated as a fuel source but that was an expensive solution to electricity.
- 8.13 East Yorkshire Buses drivers were now monitored using Greenroad technology which monitored driver performance and awarded green certificates to good drivers and red for bad. The company published league tables and the worst performing drivers were given additional training. As fuel economy was huge, the differences in driving skills made a big impact on the economies of scale and on the wear and tear on buses. Intelligent buses allowed the allocation of the most efficient buses to the longest routes thus reducing carbon emissions.
- 8.14 East Yorkshire Buses were working on an Electric Vehicle charger plan and had met with Council officers to consider joint working. Opportunities to utilise solar panels on the roof of the bus depots was a possibility that could then charge electric vehicles. There was a potential that action would be taken too quickly as once purchased, buses had

to run for 15 years and therefore making the wrong choice had an impact for a long time.

- 8.15 Plans were underway to make the bus depots more energy efficient with new boilers, insulation and energy saving campaigns would be undertaken. A new waste contract had been signed ensuring that all the rubbish collected from the buses was recycled where possible, the oil at depots was now recycled along with the rubbish collected from the offices.



The Council's vehicles

- 8.16 The Panel were advised that there would be no petrol vehicles allowed in the UK after 2055 and that that could pose a problem due to infrastructure. There were flaws in technology and the issue of trailing leads that needed to be resolved before it would be possible for a large amount of electric vehicles to be viable. The Council was encouraging residents to switch where possible.
- 8.17 The Council has 637 diesel powered vehicles which travel 5.2 million miles per annum or 15,900 miles per day. These use 2.5 million litres of diesel per annum or 7,500 litres per day which emits 21,190 kg of carbon per day. Approximately 193,499 trees would need to be planted to offset these emissions.
- 8.18 The Council's fleet are currently mainly diesel vehicles and there are far fewer producers of commercial electric vehicles to consider swapping to. There are grants available which could make a saving on purchasing small electric vans which cost £20,000 for diesel and £18,000 for electric. However, the costs of purchasing larger vans in an electric version was £45,000 compared to £24,000 for diesel. The costs for electric refuse vehicles was £500,000 compared to £150,000 for a diesel vehicle.
- 8.19 Research had been undertaken into electric light commercial vehicles and there were potentially 94 of the current fleet that could be replaced and would operate on a single charge all day. Those vans were mainly used by housing maintenance staff and would need recharging overnight. That could cause an issue as the majority of the vans

were parked outside staff member's houses overnight in order to reduce journeys returning to and from the depots every evening and morning.

8.20 Vehicle charging facilities could be provided to homes where possible but the costs could be prohibitive for all Council staff using a Council vehicle. The Council mechanics would all need retraining on how to repair and service electric vehicles but that investment in staff would help with recruitment and retention.

8.21 Planning requests had been received from supermarkets to install chargers in their car parks. Some fuel companies with garages in the area were also considering installing chargers although these were not ideal as a car would take up forecourt space for an average of 45 minutes.

Key Findings

8.22 The transport sector is the largest contributor of carbon dioxide emissions across the UK, contributing to a third of all emissions. The Panel therefore recognised that this sector must be encouraged to reduce their emissions quickly before Government legislation was introduced to force changes.

8.23 Whilst the electrification of the rail line from Manchester to Hull would be hugely expensive, the Panel considered that it would have a massive impact on the carbon emissions in Hull and the East Riding. The decision to electrify the rails would have to be taken by Government and they would also need to provide the funding. Hull trains had been supporting the project as had TransPennine Express but it had been overshadowed by the HS2 issues. Government funding of £589 million was announced in July 2020. This would largely be used to electrify the lines from Leeds to Manchester, Sheffield, York and Newcastle but not to Hull.

8.24 The Panel were interested to hear that East Yorkshire Buses had developed their ticketless App to also show their customers their carbon savings from taking their journey by bus rather than by car. The panel were keen for this to be publicised as it could help attract more customers.

8.25 Whilst there had been a price comparison undertaken of diesel vs electric cars and vans by the Council, the Panel would like to see a comparison of carbon savings as part of the process. Welfare Buses did 280,000 miles per year and therefore the carbon savings and the fuel savings would be huge and may surpass the cost reasons for not purchasing electric vehicles.

Recommendation 8

That the Council considers investing in improving rural transport links in partnership with bus operators and works with all rail companies to improve the infrastructure into local train stations including the potential to electrify the rail line between Hull, Sheffield and Leeds.

9. ADAPTING AND RESILIENCE TO CLIMATE CHANGE

Environment Agency

9.1 The Environment Agency has an eMission 2030 plan that they shared with the Panel which was published in late 2019, with a net zero commitment by 2030. The eMission 2030 plan is aligned with the United Nations sustainable goals and has four priorities:

- Delivering environmental net gain;
- Responding to the Climate Emergency;
- Optimising resources (becoming as efficient as possible with a circular economy), and
- Benefitting people and communities.

9.2 The Environment Agency were monitoring their success against the plan using milestones with the first being mapping their carbon footprint. 23 per cent of emissions were directly created by the Environment Agency, 46 per cent were due to construction and the rest were due to manufacturing, suppliers and asset provision.

9.3 By December 2020 all Environment Agency departments will have detailed carbon reduction targets to be achieved by 2030, by 2022 all buildings and land will have been assessed for adaptation and all staff will have received climate emergency training. Their strap line is "If we win slowly, we still lose" (Environment Agency, 2020).

9.4 The Environment Agency are also undertaking drone inspections to reduce travel emissions, are installing closed-circuit television (CCTV) to reduce in person inspections and are changing their fleet over to electric vehicles.

9.4 Alongside their plans to be net zero by 2030 as a business, the Environment Agency also has national and local plans to improve protection from Climate Change impacts such as traditional sea defences, largescale flood defences and local partnership working to build resilience in communities.

9.5 The Environment Agency's Flood and Coastal Erosion Risk Management Strategy details their plans to improve resilience both nationally and locally and recognises the need to work in partnership with other organisations to mitigate the impacts of climate change. The Humber

2100+ project is underway with all 11 Local Authorities in the Humber region to develop a tidal flood risk plan and to improve carbon storage in order to build community resilience.

- 9.6 There were many large and small partnership projects underway across the East Riding, some of which the Environment Agency led on and some of which they played a supporting role. The majority were aimed at adapting to climate change, building resilience, improving natural habitats and utilising carbon sequestration. These include:

- West Wolds – slowing the flow
- Living with water
- Great Culvert Pumps
- Holderness FAS
- Love Your Stream
- Driffeld Trout stream
- Skerne Flood Plain reconnection
- Pulfin and High Eske habitat improvement
- Hull banks project
- Wolds Chalkshire
- Sustainable Landscapes Humber

Flood and Coastal Erosion Risk Management

- 9.7 The Panel were advised that climate change will increase the level of flood and coastal risk in the future from all sources across the East Riding. The Council's flood and coastal risk management teams were working in partnership with other national and local organisations to deal with the impacts of climate change which would continue despite future reductions to carbon emissions.

- 9.8 Rising sea levels, extreme predictions are up to 2 metres, and more extreme rainfall events will increase the likelihood and impact of tidal and coastal flooding in the East Riding alongside the potential for inland water courses to flood. Land on the Humber estuary also faces risk of tidal flooding.

- 9.9 The Council has already undertaken 110 flooding intervention projects from small culverts to large multi-million pound projects to mitigate for flooding. Many projects were undertaken in partnership with the Environment Agency and other partners including 9 kilometres of coastal defences, 16 new flood storage reservoirs and 2.5 kilometres of tidal defences. 25,000 properties now had a reduced flood risk due to the £88 million programme of works undertaken between 2015 and 2020.

- 9.10 The Council had been successful in sourcing funding for the schemes from a variety of sources including European and growth funding, Flood Defence Grant in Aid, the local growth funding, private companies and the Department for Environment, Food and Rural affairs. Over 50

more flood projects were at the planning stage but as European funding would no longer be available, only 15 projects would be fully fundable as the Council was not guaranteed a share of £5.2 billion Government funding. Partnership working would be essential in the future to access funding and develop further schemes.

- 9.11 The Flood and Coastal Risk Management teams consider climate change in all stages of the development of schemes to ensure that they are resilient to increased climate change extremes. The design of the schemes and their operational needs are also considered to ensure that the Council's Carbon footprint is reduced at every opportunity. Many of the large flood alleviation schemes are passive, having very small carbon footprints, with no mechanical parts as they hold back, divert or store water and therefore create no emissions (see the report of the Flood Review Panel 2017 for further details on these schemes).

- 9.12 The monitoring and maintenance of schemes has also been designed to have a low carbon footprint. The Council has installed the largest network of telemetry in the UK at over 100 sites so they can be monitored remotely. Closed Circuit Television (CCTV) has also been installed at some sites to allow engineers to remotely monitor water levels. The use of drones has also been introduced to monitor river levels and areas of flooding.

- 9.13 The flood and coastal risk management teams also assess all major and a significant number of minor planning applications across the County to ensure that new developments can manage surface water flow, do not increase the risk of flooding and have an allowance for climate change. In 2019/20 over 400 major and 1,000 minor applications were assessed.

Coastal Change Management

- 9.14 Since 1900, the UK has seen a 16cm rise in sea levels and this could increase by 1.15m by 2100. There is also an increased threat of storms due to climate change. The predicted sea rises and storms would put residential properties, businesses, roads, railways and agricultural land at risk from coastal erosion.

- 9.15 The East Riding has 19 kilometres of chalk cliffs, 17 kilometres of sand dunes, 11 kilometres of sea defences and 48 kilometres of eroding glacial tills. The East Riding coast currently experiences erosion rates of up to 4 metres per year and the largest ever cliff loss recorded was over 20 metres. In order to ensure that the coastline is managed sustainably, the sustainable development team has developed a Shoreline Management Plan which covers up to 2105.

- 9.16 Hold the Line policies are in place in Bridlington, Hornsea, Withernsea, Mappleton and Easington whilst no Active Intervention policies are in place elsewhere thus allowing the natural coastal erosion processes to occur. As coastal defences are not considered environmentally, economically or sustainable in all locations, coastal erosion is allowed to continue to shape the East Riding coastline in some areas.
- 9.17 East Riding coastal schemes have cost £23.33 million in capital and maintenance costs since 1995.
- 9.18 The Council undertakes a comprehensive coastal monitoring programme which includes the use of aerial Light Detection and Ranging (LiDAR), global positioning systems (GPS), site inspections and sea bed analysis. In 2019/20 monitoring surveys showed winter losses were higher than normal in some areas. Based on the latest data 21 properties and 47 caravans are at risk due to coastal erosion by 2025 with these figures predicted to rise to 234 properties by 2105 along with a large number of caravans. Roll back policies are also in place to help homeowners, businesses and caravan parks to relocate away from cliff edges. A Coastal Change Management Area has also been adopted with in the Council's Local Plan which identifies appropriate land use within areas at risk from coastal change.



Emergency Planning

- 9.19 The risks associated with Climate Change are becoming more frequent and therefore emergency plans are more important than ever. The Council holds a detailed risk register of potential sites at risk of flooding due to increased rainfall as the last 20 years had seen 7 of the 10 wettest years. There were also flood emergency plans in place to deal with the impacts of flooding alongside preventing the risks.
- 9.20 In the event of flooding, staff were on standby 24 hours per day and in some recent cases, that lasted for 7 days a week. Moving staff away from normal day to day roles to deal with emergency situations can therefore have an impact on the Council's service delivery.

- 9.21 Local emergency plans were also in place to deal with Heat waves alongside the national heat wave plan that link into MET office heat alerts. In the hot weather of 2003 there were 3,000 excess deaths and by 2040, it was reasonable to expect that extreme hot weather will become the norm.
- 9.22 Plans were also underway for air pollution planning and wildfire although the East Riding was at less risk from the threat of fire.
- 9.23 Whilst the Council can continue to take the lead in emergency situations that have resulted from climate change, the costs involved mean that it cannot protect all communities against all eventualities. Community preparedness is essential moving forward and projects such as the Living with Water Scheme were already underway to encourage residents to protect their own properties against flooding (See chapter 10 for further details).

Planning Policy

- 9.24 Although the Local Plan had been discussed previously, the Panel recognised the important role that planning policy can play in adapting and resilience to Climate Change. If carbon emissions could be significantly reduced, then climate change may be halted but not reversed so the impacts already being felt were likely to continue.
- 9.25 In order to reduce those impacts, the Council's forward planning department are -
- Directing new development away from areas at risk of flooding;
 - Considering the impact of surface water in relation to new planning developments in their role as Lead Local Flood Authority, and
 - Promoting sustainable design.
- 9.26 The National Planning Policy Framework specifies that sustainable development must include "*mitigating and adapting to climate change, including moving to a low carbon economy.*" Local planning decisions must therefore comply with this aim.
- 9.27 The 2009 Environment Agency flood risk assessment placed East Riding in the top ten areas at risk of river and sea flooding. The Local Plan and decisions on planning applications therefore aim to direct development away from areas at a lower risk of any sort of flooding or in areas potentially at risk and ensures that the developments are safe from flooding but also do not increase the risk of flooding elsewhere.
- 9.28 Part of the Local Plan evidence base includes a strategic flood risk assessment. The level one flood risk assessment covers the whole of the East

Riding and assesses which fall into Flood Zones 3b, 3a, 2 and 1. Level two risk assessments cover Hedon and Goole and housing development will now be directed away from Goole, unless site specific flood risk assessment offers further detail. The Local Plan's evidence base is therefore important for developers to consult before proposing new residential developments as some areas can no longer be built on due to flood risk grounds.

- 9.29 If a development is proposed in an area not consider to be at high risk of flooding, surface water runoff must be considered. Surface water runoff has increased rapidly due to the replacement of permeable landscaping with hard surfaces and that combined with the loss of rural features that in the past may have slowed the passage of surface water, has increased peak flows in urban areas resulting in flooding.
- 9.30 The Planning team now ensure that all new developments have Sustainable Drainage Systems (SuDs) to use natural methods of dealing with surface water and also to provide natural wildlife habitats. All planning officers have been upskilled to understand how drainage works and apply it to real life plans to capture, reuse and delay surface water. There is a hierarchy of SuDs designs with infiltration to the ground being the preferred option. Maintenance and operation of designs in the future should also be considered by the developer.
- 9.31 The third strand of the Planning Department's role is promoting sustainable design. The energy efficiency of buildings is regulated under the national Building Regulations but these only apply to new dwellings or dwellings created by a change of use. The current building regulations are based on European legislation that aims to have low and zero-emission buildings by 2050. Between October 2019 and February 2020 the Ministry of Housing, Communities and Local Government consulted on a Future Homes Standard which will introduce requirements from 2025 for all new builds to have low carbon heating and high energy efficiency.
- 9.32 Consultations are also underway on proposed changes from 2020 to uplift the energy efficiency of new buildings. The Council has responded to the Government citing option 2 as their preferred choice. Option 2 combines increases in the fabric of a building to reduce heat loss alongside the use of low carbon heating/and or renewables such as photovoltaic panels. This option would deliver more carbon savings and result in lower bills for households. Further Government consultations are expected in 2021 on energy efficiency improvements to existing homes and to both new and existing non-domestic buildings.

- 9.33 Until this national legislation is passed, the Planning Department cannot enforce the use of low carbon heating or the use of renewables. The Local Plan does support the use of sustainable design and energy efficiency prior to applying the national building regulations. Buildings using new materials and technologies, renewables and low carbon technologies are more likely to receive planning approval than those that do not.

Key Findings

- 9.34 The Panel were impressed by the work being undertaken by the Environment Agency and their aims to be net zero by 2030. It was clear that the work already underway in the East Riding to mitigate for climate change was vast and partnership working was the key to ensuring that projects could be beneficial to the East Riding in adapting to climate change. As a national organisation, the Environment Agency was well placed to access funding and co-ordinate large county wide schemes.
- 9.35 The Panel were unaware of the size and scale of many of the flood alleviation schemes that were underway across the East Riding, the majority of which were being led by the Council. It was clear that in order to secure funding for future schemes, partnership working would be essential. The Panel recognised that flood alleviation schemes were expensive to install and maintain and it would not be viable to protect the whole East Riding area from the effects of Climate Change.
- 9.36 The Council plays a pivotal role in managing flood and coastal risk as the Lead Local Flood Authority and the Coastal Erosion Risk Management Authority. Whilst satisfying its statutory duty in both these roles, the Panel were encouraged to see that the Council also goes above and beyond in an attempt to protect local residents and businesses from the impacts of climate change.
- 9.37 In order for flood alleviation and coastal erosion schemes to continue in the future, the Panel recognised that additional Government funding would be needed to replace previous EU funding streams.
- 9.38 As extreme weather events become more frequent, it is likely that they stop becoming emergencies and become regular occurrences to manage locally. The impact of that would be at huge cost to the Council and would have an impact on residents, businesses and tourism. Communities needed to be encouraged to build their own resilience

alongside the work of the Council with their emergency plans.

- 9.39 The Panel is aware that local planning decisions are very much dependant on national planning regulations. The Council's Planning Department can decide not to approve local developments in flood risk areas and ensure that all new developments have sustainable drainage systems to manage surface water runoff. They cannot enforce the use of low carbon heating or renewable energy sources unless national legislation is passed. The introduction of new legislation should be encouraged at the earliest opportunity if carbon reductions targets are to be met.

Recommendation 9

That the Council continues to lobby the Government to introduce national changes to planning legislation to ensure that new developments are fitted with new technology to combat climate change and are built to withstand future climate change risks. Further national funding should also be sought to explore the management of climate related risks, including the delivery of flood and coastal change management projects.

10. PARTNERSHIP WORKING

Federation of Small Businesses

- 10.1 The Panel met with the Federation of Small Businesses in order to understand the impact of climate change on their members.
- 10.2 A detailed analysis was currently underway seeking the views of members on climate change and green energy sources with the aim of developing an environmental strategy. Many of the responses so far had referred to the impact of recent flooding events on businesses and their suppliers which had led to difficulties obtaining insurance or increased premiums to such a level that they were economically unviable.
- 10.3 The Federation of Small Businesses were working with the Council on the location of flood defences to maximise the impact on their members. They were also helping members with flood risk assessments, to make adaptations and thus lower their insurance premiums. The Federation of Small Businesses had also started their own Government backed insurance scheme that was available for its members but the premiums still made it unaffordable to those in high flood risk areas.
- 10.4 Work was also underway with members to assist them to apply for grants to install green energy sources such as ground source heat pumps. Unfortunately as these schemes needed capital

input, many businesses were unable to afford the additional costs at this time due to the Covid-19 pandemic.

- 10.5 The Council was also working, alongside the Federation of Small Businesses in a joint working group, to help businesses apply for national Covid-19 funding and offering help and advice through their business development team.
- 10.6 Partnership working with the Federation of Small Businesses was a hugely beneficial way for the Council to reach the small businesses across its large rural county and to get their input into new flood alleviation schemes. As membership of the federation was high across the county, businesses are able to have a voice into the Council.

York and North Yorkshire Local Enterprise Partnership (YNYLEP)

- 10.7 The YNYLEP has many strategies and policies around climate change which presented both challenges and opportunities. With the aim of becoming Carbon negative, the challenge was ensuring that the correct data was collected to create a sound evidence base on which to create key strategies. The Council was a member of the YNYLEP until it resigned on 31 March 2020 when Government regulations determined that Councils could not be members of more than one LEP.
- 10.8 The YNYLEP's vision is "thriving as a competitive carbon-negative circular economy that benefits businesses, society and the environment" (YNYLEP, 2020) (see the YNYLEP website for further details). In order to achieve this, three steps were necessary:
- Energy – accelerating the decarbonisation of energy systems;
 - Circular Economy – moving towards a resilient circular economy, and
 - Natural Capital – enhancing natural capital assets.
- 10.9 The Local Energy Strategy aimed to increase the use of solar and wind technology and creating resource clusters was at the heart of this. Communities and businesses were being encouraged to become energy independent and the City of York was aiming to be energy smart.
- 10.10 Currently too many areas operated a linear economy, where resources were used once and then thrown away as they were not recyclable. By introducing a circular economy, waste was eliminated by using products that could be used, repaired and maintained for longer periods before being broken down to be reused. The circular economy strategy launched in 2019 to find solutions to a throw away economy. An example of its impact can be seen at the Malton community project where the community own an anaerobic

digester which generates energy and income for the local residents to put into other schemes.

- 10.11 A natural capital investment plan is also underway with regional partners to understand the best way to invest capital into projects that benefit the local area and which areas to do so.
- 10.12 The YNYLEP was also developing a local Industrial Strategy to reduce carbon emissions to boost economic gains and improve quality of life. The added benefit could be to attract more businesses and uplift property values. The strategy would be created in partnership with local Councils, of which the East Riding was a part of until recently, as the benefits would be seen across the York and North Yorkshire region.
- 10.13 The YNYLEP was realistic in its targets and had recently revised the Carbon neutral target date to 2034 instead of 2030, becoming Carbon Negative by 2040. Targets would rely on what Government Policy looked like after 2025 but the YNYLEP was not underestimating the scale of the challenge in order to reach their maximum ambitions. The importing of goods generated large amounts of Carbon emissions but this could only be managed at a national level with the LEP considering scope 1 and 2 emissions generated in their local area.

Humber Local Enterprise Partnership (HLEP)

- 10.14 The Council is currently a member of the Humber LEP but that will no longer exist from 31 March 2021. A new Hull and East Riding LEP will be in place from 1 April 2021 which will, where possible, adopt the previous Humber LEP governance and strategies.
- 10.15 The Humber LEP's ambition is the decarbonisation and clean economic growth across the whole Humber region to drive the economy for the benefit of all communities (see the Humber LEP website for further detail). The environment will be hardwired into the industrial strategy by promoting projects that drive the economy whilst achieving decarbonisation.
- 10.16 The Humber estuary is accountable for nearly twenty per cent of the country's electricity generation, a third of its refined fuel and more than a fifth of natural gas imports. The region is also at the centre of transition from fossil fuels to renewable energy. The turbines for the local wind farms are built at the Siemens factory in Hull and Orsted, the developers of the wind farms, are situated on the south bank of the Humber. The Spencer Group have also invested over £200 million to create the largest privately funded power station of its kind in the UK, which is currently under construction.

- 10.17 However, the Humber region is also home to one of the country's six industrial clusters. These are energy intensive businesses which include steel plants, oil refineries and chemical manufacturers which consume large amounts of energy and emit significant amounts of carbon. These companies are accountable for nearly 90% of the area's emissions.

- 10.18 The Humber LEP has a vision "to be the leading region in driving sustainable growth through a clean energy economy in an affordable, accessible and inclusive way, protecting and enhancing the environment for future generations" (Humber LEP, 2020).

- 10.19 To achieve these aims, the Humber Energy Strategy has two key objectives:

- **First**, to ensure the Humber region plays a leading role in decarbonisation efforts through targeted interventions to reduce emissions in the electricity, heat and transport sectors, and
- **Second**, to foster clean growth by supporting public and private investment in low carbon technologies to take advantage of the opportunities presented by the low carbon economy.

- 10.20 The Humber LEP have produced a Humber Clean Growth Local White paper which shows how the Humber area could move from a carbon heavy economy to a carbon neutral economy by focussing on clean energy generation and reducing carbon emissions.

- 10.21 The Zero Carbon Humber Scheme also brings together international energy producers, traditional industries, leading infrastructure and logistics operators, global engineering firms and academic institutions to develop a plan to decarbonise this industrial region.

- 10.22 The ambitious plans for decarbonisation and increase in renewable energy, whilst needing large scale investment, also provided an opportunity for greater employment across the Humber region. The offshore wind sector alone was projecting the need for 27,000 jobs by 2030, up from 7,200 today which could create sustainable skilled employment and attract a wider supply chain to the area.

Yorkshire Water

- 10.23 Yorkshire Water were directly impacted as a business by the impacts of climate change as they had a responsibility to supply and move clean water around the region. Record dry weather in 2018/19 had caused logistical issues due to the need for water to be pumped around the region.

- 10.24 Yorkshire Water were therefore prioritising reducing its own carbon footprint, sequestration

of more carbon through land management and increase resilience around water resources. Work was ongoing to understand their impact on the climate and to calculate and map their own company emissions. The operational use of energy and fuel used by their fleet had been analysed and now the carbon embedded in the concrete and materials used in their capital was being calculated.

10.25 As the second largest land owner in Yorkshire, Yorkshire Water were also working to understand how much carbon is stored in their land. A tool had been developed that could calculate carbon storage and predict increases in storage were peatland to be restored as opposed to trees being planted thus establishing the net benefits of different land uses.

10.26 Yorkshire Water had also determined to apply natural capital benefits to all decision making in order to determine if more expensive financial costs could be justified over choosing the lowest cost options. Natural solutions were now considered as the first option for all projects and capital emissions had therefore been reduced by 44 per cent over the last four years.

10.27 Yorkshire Water had now completed all the easy carbon reduction projects leaving only difficult, larger scale projects to tackle such as emissions from treating waste water and fuel from fleet vehicles. Some electric vehicles were in use and were charged from renewable energy at Yorkshire Water depots but many were needed to travel around the large rural areas which had little access to charging facilities. Some emissions from processes could not be fully eliminated and would therefore need to be offset.

10.28 To increase carbon offsetting potential, Yorkshire Water had formed a Yorkshire Land Network to establish a functioning carbon market across the region. Currently many British companies offset their carbon emissions abroad but the Yorkshire Land Network would allow the large scale offsetting of emissions in the UK viable. Partners in the project included the National Farmers Union, Church Commissioners, the Crown Estate, Private landowners and the National Trust. The Yorkshire Wildlife Trust were also involved to consider the use of peat land, tree planting and the use of sea grass. Interest had also been received from DEFRA and the treasury.

10.29 Plans were underway for a Yorkshire Commission on climate change with buy in from all Council leaders and had received support from the Environment Agency, Yorkshire Water, the Northern Power Grid, Chambers of Commerce and Yorkshire Universities. This commission would have decision making powers to act immediately within a partnership agreement.

10.30 Alongside their Carbon emission and offsetting programmes, Yorkshire Water was also running climate change resilience programmes. The Living with Water Partnership with East Riding of Yorkshire and Hull City Councils and the Environment Agency was an example of dealing with too much water, drought and preventative flood work. Communities were being educated on how to build their resilience to draught by reducing water consumption and to flood by giving practical advice on how residents and business can protect their properties.

Key Findings

10.31 The Panel were delighted by the scale of the ambitions that the Council and its partners had for the decarbonisation of the Humber and Yorkshire region.

10.32 Whilst no longer being members of the YNYLEP or the Humber LEP, the Panel hoped that the new Hull and East Yorkshire LEP would continue the work that had started and work collaboratively with these LEPs to implement large scale decarbonisation projects across the region.

10.33 The Panel recognised that the scale of the changes needed to stop climate change meant that the Council could not work in isolation on its schemes. Whilst it could work internally on its own scope 1 and 2 emissions, partnership working was essential to have the greatest impact county and country wide.

10.34 Partnership working is a huge benefit to the Council, as a cost effective way of dealing with the scale of issues created by climate change. Efficiencies of resources, both financial and knowledge based, will ensure that strategic aims can be translated to action on the ground.

10.35 The Panel considered, that as part of the recommended Climate Change Strategy, the Council should release its own vision statement detailing its ambitions on the Environment and Climate Change across the county.

10.36 A better vehicle rural charging offer was a necessity and was a repeating theme heard by the Panel. A partnership with other utility and transport companies operating vehicles that regularly travelled the rural East Riding roads was essential to decarbonising the transport sector across the region.

Recommendation 10

That the Council considers a partnership with other organisations in the East Riding such as Yorkshire Water, the Environment Agency, Utility companies

and Rail and Bus companies to create a rural electric charging infrastructure.

Recommendation 11

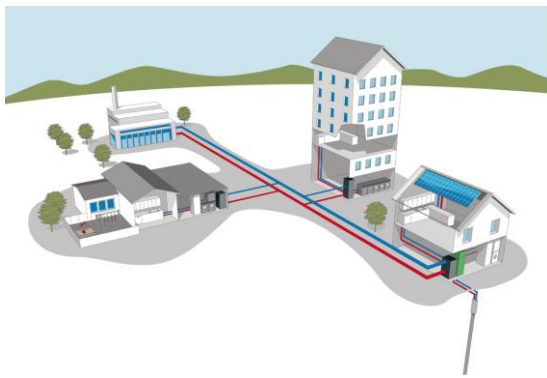
That the Council signs up to a Yorkshire wide Commission on climate change that has real decision making powers and encourages action to start immediately to showcase that projects can work.

11. THE IMPACT OF COVID-19

- 11.1 Covid-19 has affected the way that people impact and interact with the natural environment. There has been an increase in people engaging with nature and utilising the green spaces near their homes. This provides an opportunity for the Council to create or enhance new green spaces across the county which also increase carbon sequestration and can provide natural flood alleviation possibilities.
- 11.2 During the first Covid-19 lockdown, there was a reduction in transport movement, 64 per cent in the East Riding, which in turn led to a reduction in carbon emissions and improved air quality. There was also an uptake in active travel such as walking and cycling which offer health benefits alongside environmental benefits. The Council will continue to encourage active travel by investing in cycle paths and public rights of way to promote the use of sustainable travel.
- 11.3 As a result of Covid-19, the Government has recognised the crucial role of the environment in supporting economic recovery through a number of funding announcements. These have included:
- £3 billion for homeowners to implement energy efficient upgrades;
 - £1 billion to improve the energy efficiency of public buildings;
 - £50 million to decarbonise social housing;
 - £40 million to create jobs in areas that restore the environment, and
 - £350 million to decarbonise heavy industry, construction and transport.
- The Council will be applying for this funding once details have been released.
- 11.4 Covid-19 has delayed the outcome of Government consultations on planning legislation. The long term implications for the economy, working from home and retail are unknown along with the implications of those on climate change. The Government could see the planning system as a way to boost economic growth which has stalled as a result of the Covid-19 pandemic and build cleaner and greener communities whilst increasing employment in the building sector.

12. TECHNOLOGY

- 12.1 Technology will need to be embraced if the Council is to achieve its ambitious Climate Change target by 2050.
- 12.2 The Panel found that many Council projects were already underway using cutting edge technology (See chapter 3 for further details). For example, the Council's architects were utilising IES Virtual Environment software to create 3D simulations of buildings to design heating, cooling and ventilation systems. This ultimately helps buildings to perform better using less energy and could be utilised to retrofit existing Council buildings.
- 12.3 The same software can be utilised to map the energy use and carbon output of buildings to then predict how renewable technologies can be introduced to make them more sustainable.
- 12.4 Building Research Establishment Environmental Assessment Methods (BREEAM) are being used at the Council's new Grovehill Enterprise Park and the building design has been rated as 'Excellent'. The negative effects of construction of the building have been minimised and will help the Council to set the standards that new buildings can achieve across the county.
- 12.5 Taking tips from the new Passivhaus performance standard, the Council has already retrofitted some of its off grid housing with air source heat pumps and insulation to reduce heat loss and bills for residents.
- 12.6 Replacing natural gas with hydrogen has recently started to be explored as when used as a fuel, hydrogen emits only water. Pilot schemes are underway to mix hydrogen with natural gas to create a 20 per cent mix and thus reduce carbon dioxide emissions. The Council is in a great location to harness this technology due to the new offshore wind farms, the energy from which could be used to refine and store green hydrogen.
- 12.7 The Council had recently commissioned a study with Hull University to identify the possibility of utilising Geothermal as a heating source. The geothermal resource could supply local heat networks and deliver large carbon savings.
- 12.8 The Panel were pleased to see that the Council was already utilising technology to reduce carbon emissions and help its residents save on utility costs. These schemes needed to be publicised more widely so that residents were reassured that the Council were serious about Climate Change and was undertaking many, varied schemes to reduce their own emissions (See recommendation 6).



13. CONCLUSION

- 13.1 The Panel found that the Council was already undertaking many projects to mitigate the impacts of climate change and to reduce its own carbon emissions that they were unaware of. These projects need to be publicised more widely so that residents can be assured that carbon reduction is high on the Council's agenda. There were further steps that could be taken, weighing up the Council's legal duty to run public services and its responsibility to spend public money effectively, against the need for climate change measures.
- 13.2 There were already many Council strategies in place, each with a section addressing climate change but the Panel felt that an overarching climate change strategy was needed for a more co-ordinated, quicker response. The Council must be transparent on what it is and is not including when it declares the changes it will be making in relation to carbon emissions and this must only be in relation to its own services.
- 13.3 The Council must also be realistic with goal setting as setting unachievable goals would lead to reputational damage.
- 13.4 The Panel found that climate change is very complex and can only be halted by partnership working and collaboration across counties, regions, countries and the world. The Panel could only consider the work that was occurring in the East Riding which faced many threats from climate change such as flooding and coastal erosion.
- 13.5 There are already many partnerships projects underway across the East Riding that the Panel were unaware of and these also needed to be publicised more widely. These varied from carbon emission cutting projects, to the introduction of green energy schemes and the restoration and creation of natural environments for the benefit of local residents, tourists and wildlife that could also act as natural carbon storage.
- 13.6 Many partner organisations, some of whom the Panel were fortunate to meet with, had strong carbon reduction strategies in place and had publicised their visions for the future. The Panel

recognised that there were many more organisations working across the East Riding and nationally, all working on reducing their carbon emissions, whom they were unable to meet due to the time constraints of the review panel process.

- 13.7 Climate change cannot be reversed therefore the need for adaptation and resilience to it has never been more important. The Panel determined that some of this could and should be undertaken by the Council, leading by example on large flood alleviation schemes or coastal erosion projects. However, local residents and businesses also needed to be encouraged and empowered to make their own changes to protect their homes and businesses.
- 13.8 No one could have predicted the Covid-19 pandemic and the impact it would have globally and whilst lockdowns initially reduced world carbon emissions, levels have since returned to previously levels. The long term impact of more people working from home are currently unknown. The pandemic also impacted on the work of the Panel, delaying meetings for five months but the Panel were determined to finish their work as quickly as possible as climate change is not pausing.
- 13.9 The Panel found that whilst climate change was impacting hugely on the East Riding, there were also associated opportunities for increased, skilled employment in the area. Several large multinational green energy companies, such as Orsted and Siemens, had chosen to locate in the Humber region and would create more jobs with their ambitious plans to generate more of the UK's energy from renewable sources. The Government's funding announcements to encourage the green recovery should also be utilised.
- 13.10 The Panel determined that the Council can only directly impact and reduce its own level one and two carbon emissions and they were pragmatic and realistic in their approach to setting their final recommendations (see Appendix 3 for smaller findings that were incorporated into larger, more strategic recommendations and which can be developed into an action plan). Whilst the Council could lead by example, which some of the recommendations would help with, it could not halt climate change alone.
- 13.11 However, the scale and impact of climate change was apparent to the Panel, as was the need for fast action to tackle it. Therefore despite their findings that the Council and their partners are already carrying out excellent work to reduce carbon emissions across the East Riding, it was apparent that this work needed to be undertaken at a much quicker pace to have a significant impact on climate change.

- 13.12 After considering all the evidence put to them, alongside the impact of climate change on the East Riding, the Panel determined its final recommendation that the Council should declare a Climate Emergency in order for action to be taken at a much faster pace to halt the impact of climate change on the East Riding.

Recommendation 12

That the Council declares a Climate Emergency.

TABLE OF ABBREVIATIONS

APSE	Association of Public Services Excellence Energy
BREEAM	Building Research Establishment Environmental Assessment Methods
CCTV	Closed-Circuit Television
CO2	Carbon Dioxide
EU	European Union
GPS	Global Positioning System
ICT	Information Communication Technology
LEP	Local Enterprise Partnership
LNP	Local Nature Partnership
MET	Meteorological Office - UK national weather service
MWh	Mega Watt hours
NFU	National Farmers Union
SuDS	Sustainable Drainage Systems

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ACKNOWLEDGEMENTS

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CLIMATE CHANGE REVIEW PANEL - SCOPE

<p>Proposed Review, including desired outcomes and objectives</p>	<p><u>Aim of the Review</u></p> <p>The aim of the review is to assess climate related risks and opportunities to the Council, its residents and businesses, and to investigate how the Council can act to minimise the risks and take advantage of the opportunities.</p> <p>The review will consider:</p> <ul style="list-style-type: none"> • The likely impacts of climate change on the East Riding (including its residents and businesses) and Council operations and services; • What the Council is already doing to mitigate, and adapt to, climate change (including what strategies, plans and policies are already in place); • What further measures can be taken to reduce the carbon footprint of the Council, its residents and businesses; and • What further measures can be taken to increase the resilience of the Council, its residents and businesses to the impacts of climate change? <p>The review relates to the following corporate priorities:</p> <ul style="list-style-type: none"> • Growing The Economy • Valuing The Environment • Protecting The Vulnerable • Promoting Healthy Lifestyles
<p>Areas the Review Panel wishes to consider</p>	<p>The scope of the review will cover the following areas, amongst any additional issues which may come to light during the review process:</p> <ul style="list-style-type: none"> • Impact Assessment - How is the East Riding's climate expected to change in the future? What challenges and opportunities does this present? • Audit - What actions are already being taken to meet the challenges and likely impacts of climate change? What data is already being collected? • Targets and Data - How should the Council set and communicate its climate change ambitions? How will it monitor progress against these ambitions? • Action Plan and Projects - What new projects/initiatives are required to ensure that the Council achieves the aim of being carbon neutral? • Capacity - What resources (buy-in, time, funding, skills, etc) are required to ensure that the Council's climate change ambitions can be met? How can the Council ensure that climate change stays at the top of the agenda? • Plans and Strategies - How can climate change ambitions be enshrined into existing plans, policies and strategies, both within the Council and without? • Innovation - How can the Council ensure that its strategies, targets and activities reflect the latest scientific and technological developments over the long-term?

	<p>How can the Council encourage individuals and organisations (including the Council) to embrace new technology and ways of working?</p> <ul style="list-style-type: none"> • Suppliers and contractors (including commissioning) - How can the Council ensure that supply chains and procurement (including the Council's) are greener and more sustainable and at what price? • Partnership - How can the Council engage with and support its partners (including town and parish councils) to take climate action, while encouraging ownership of their ambitions? • Leadership - How can the Council inspire residents and businesses to mitigate or adapt to climate change through its own actions? • Education and Behaviour Change - How can the Council inform individuals and organisations about their impact on the environment and encourage them to take ownership of their actions? What will it cost? • Covid-19 - the impact of Covid-19 on Climate Change in the East Riding and how the Council use this as a spring board to make permanent changes and improvements to the local area.
<p>Who should be consulted and involved in the Review?</p>	<p><u>External Representatives/Organisations</u></p> <ul style="list-style-type: none"> • Association for Public Service Excellence (APSE) • Integrated Catchment Solutions Programme (iCASP) • Hull University - Energy and Environment Institute • Yorkshire Water • Transport for the North • Local Enterprise Partnerships - Humber LEP and York, North Yorkshire and East Riding LEP • Business Sector – Federation of Small Businesses, Humber Bondholders • Carbon Trust/Energy Savings Trust • Local Authorities that border East Riding of Yorkshire Council • Town and Parish Councils • Richard Walsh - NQA - Global Certification Body <p><u>Representatives of East Riding of Yorkshire Council</u></p> <ul style="list-style-type: none"> • Portfolio holders <ul style="list-style-type: none"> • Cllr Mike Stathers - Enhancing Communities • Cllr Chris Matthews - Strategic Management <p><u>Council Officers</u></p> <p><u>Planning and Economic Regeneration Directorate</u></p> <ul style="list-style-type: none"> • Paul Bell - Head of Economic Development • Ian Burnett - Head of Asset Strategy • Stephen Hunt - Head of Planning and Development Management <p><u>Communities and Environment Directorate</u></p> <ul style="list-style-type: none"> • Paul Abbott - Head of Housing, Transportation and Public Protection

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Overview and Scrutiny Sub-Committee to monitor review recommendations	Environment and Regeneration Overview and Scrutiny Sub-Committee

Link Director - Alan Menzies - Director of Planning and Economic Regeneration

Review Manager - Alison Finn - Senior Committee Manager

The Local Plan sets out 14 development expectations.

How Policy S2 will be delivered		Relevant Policies
1	Direct most new development to areas where there are services, facilities, homes and jobs, which reduces the need to travel and where it can be served by sustainable modes of transport	S3, S4, S5, S6, S7, S8 & A1-A6
2	Promote the most efficient use of land, mineral, energy and water resources	S5, H4, EC1, EC5, EC6 & ENV1
3	Support the re-use of the area's building stock and previously developed land	S3, S4, S5, H4, EC1 & EC2
4	Build at higher densities where appropriate and supporting opportunities for mixed use development	H4, ENV1 & C2
5	Promote sustainable modes of transport and well-connected places	S8, EC4 & A1-A6
6	Promote the creation of economic clusters for the renewable and low carbon energy sector	S6, EC1, EC5 & A1
7	Encourage high standards of sustainable design and construction which involve the prudent and efficient use of natural resources and built-in resilience to the impacts of climate change	ENV1
8	Promote renewable and decentralised energy generation in appropriate locations	ENV1 & EC5
9	Promote proposals that protect, enhance and link habitat networks to allow biodiversity to adapt to climate change	ENV4 & ENV5
10	Conserve, enhance and link green infrastructure networks to provide flood management, shading for urban areas and natural air conditioning	ENV1, ENV5, ENV6 & C3
11	Promote development away from areas of high flood risk, as far as possible	S3, S4, S5, ENV6 & A1-A6
12	Support sustainable flood management proposals	ENV6
13	Support the implementation of the most recent Shoreline Management Plan	ENV6
14	Manage development in coastal areas and facilitate the re-location/roll back of development from areas between Barmston and Spurn Point	ENV6

Throughout the review process, the Panel developed several small, potential recommendations as part of its deliberations. Many of these have been amalgamated into the final 12 more strategic recommendations. However, the Panel felt that these should be published as a basis for an action plan that could be developed as a result of the Council publishing its Climate Change Strategy.

1	*Possible recommendation - that the East Riding considers joining the UK 100 group (but only if it can realistically switch to renewable energy/cost implications/inclination)
2	*Possible recommendation - that the Council develops a climate change strategy
3	*Possible recommendation - that the Council develops a set of internal ambitions on climate change that identifies opportunities, ensured that all services were able to adapt to the impacts of climate change and included environmental actions in service plans
4	*Possible recommendation - that the Council develops partnership working by building on existing relationships and creating new ones and helps influence behaviours and ambitions in both the public and private sector
5	*Possible recommendation - that the Council promotes its results on climate change
6	*Possible recommendation - that the Council encourages Community Engagement with residents, schools and businesses on climate change issues and offers guidance on how others can reduce their carbon footprint.
7	Possible recommendation - that the Council continues to support the rural population and helps them deal with the climate change agenda
8	Possible recommendation - that the rural team are included in the work being undertaken by the LEP so that rural businesses are also included in the industrial strategy
9	Possible recommendation - that the work of the rural team is promoted so residents are made aware of what is happening in their areas
10	*Possible recommendation - that the Council continues to lobby the Government to introduce national changes to planning legislation to ensure that new developments are fitted with new technology to combat climate change.
11	*Possible recommendation - that the Council considers investing in improving rural transport links.

12	Possible recommendation - that local communities are encouraged to take up flood alerts and design local flood plans in partnership with the Council to build local resilience.
13	Possible recommendation - adopt a gully plan
14	*Possible recommendation - that the rail line between Leeds and Hull be electrified to make rail journeys cheaper, more reliable and cleaner.
15	Possible recommendation - that the Council continues to encourage residents to undertake small local trips on foot or by bike.
16	*Possible recommendation - that the Council develops a climate change strategy rather than just a carbon reduction strategy.
17	Possible recommendation - that the Council considers promoting the windfarms as a visitor attraction and also get children involved to encourage them to consider engineering as a career.
18	*Possible recommendation - that the Council considers implementing more heat networks utilising grants and support from the Department for Business, Energy and Industrial Strategy.
19	Possible recommendation - that actions are included within the new Rural Strategy that support farmers and land managers to adapt to, and mitigate the effects of, climate change.
20	Possible recommendation - that the Council considers reinstating a small green action grant scheme annually to promote local climate change prevention schemes and that the existing scheme be publicised to show residents that they can make a difference with the support of the local Council.
21	Possible recommendation - that the Council considers undertaking a campaign to explain to new parents that they are not adding to climate change by using disposable nappies and that they should not feel guilty and therefore try to recycle them in the blue bin. If they are correctly placed in the green bin they will be incinerated cleanly and used for electricity generation.
22	Possible recommendation - that the Council investigates the possibility of procuring food collection from some of its larger sites should the cost not be too prohibitive.
23	*Possible recommendation - that the Council promotes the improvement of rail infrastructure into Hull Station.
24	*Possible recommendation - that the Council supports further feasibility studies of electrification of the line from Hull to Liverpool.

25	Possible recommendation - that bus companies advertise the carbon savings per journey per customer to increase public awareness of savings and the impact on climate change.
26	Possible recommendation - that the Council considers undertaking a comparison of electric vs diesel large vehicles used, such as welfare buses, taking into account carbon and fuel savings alongside the cost analysis.
27	Possible recommendation - that the Council considers renegotiating staff discounts with East Yorkshire Buses to encourage greater use of public transport amongst its workforce.
28	*Possible recommendation - that the Council considers undertaking viability studies into the use of Hydrogen as a fuel in areas where partnership arrangements should be put in place to share costs and benefit from reduced emissions.
29	*Possible recommendation - that consideration is given to collaboration on establishing charging points with the Environment Agency and other utility companies that are all travelling the same East Riding routes.
30	Possible recommendation - that consideration is given to training all Council staff on Carbon Literacy.
31	*Possible recommendation - that Government be lobbied to provide national funding for coastal erosion.
32	Possible recommendation - that local communities are empowered to deal with emergency situations such as flooding with the Council assisting with risk assessments and emergency plans and facilitating training.
33	*Possible recommendation - that the Council lobbies Central Government to introduce national planning legislation that ensures that all new properties are low carbon and use green energy solutions and are built to withstand future climate change risks such as flooding.
34	Possible recommendation - that the Council considers moving towards a circular economy across the East Riding.
35	*Possible recommendation - that the Council releases its own vision statement for its ambitions on the Environment and Climate Change across the county.
36	*Possible recommendation - that the profile of the Local Nature Partnership is raised.
37	*Possible recommendation - that all the partnership work that the Council undertakes be publicised to raise awareness of the many projects underway across the county and region. *Potentially an article could be placed in the

	Spring version of YourEastRiding following the publication of the climate change review panel report.
38	*Possible recommendation - that the Council utilises the land carbon storage tool developed by Yorkshire Water to understand how its land could be best used to store carbon and offset its emissions.
39	Possible recommendation - that Natural capital benefits are applied to all Council decision making.
40	*Possible recommendation - that the Council considers a partnership with other organisations in the East Riding such as Yorkshire Water to create a rural electric charging infrastructure.
41	*Possible recommendation - that the Council signs up for a Yorkshire wide commission on climate change and encourages action to start immediately to showcase that projects can work.
42	Possible recommendation - Possible recommendation – that the procurement procedures could be tightened to only allow for the purchase of bottled drinks in fully recycled bottles that could be further recycled.
43	Possible recommendation - that recycling bins are place in all council meeting rooms.
44	*Possible recommendation - that the Council commits to spending more on goods and services if they are environmentally friendly and increase the weighting factor of environmental factors when analysing potential contracts.
45	Possible recommendation - that the Council promotes the YORswitch scheme especially as it now only accepts bids from 100% renewable energy sources.
46	Possible recommendation - that the Council considers using section 106 funding towards installing community heat next work installations.
47	*Possible recommendation - the Council are already undertaking so much work to reduce their carbon emissions and have made large carbon savings that the Panel were unaware of as will the public. These achievements need to be publicised and promoted.
48	*That the Council declares a Climate Emergency

*Denotes a recommendation that has been taken forward or amalgamated into a more strategic final recommendation