

# **Three Rivers Climate Change Strategy**

## **Executive Summary**

In 2019 Three Rivers District Council declared a Climate Emergency and committed to achieving carbon neutrality by 2030 for its own emissions and it will assist the District to achieve zero carbon in line with the Government target by 2050. Three Rivers through this Strategy are committing to tackling this emergency.

It is likely the UK will experience a half a degree rise in temperature by 2050. If radical action is taken now the impact for future generations will be reduced. The health and economic impact of COVID 19 starkly demonstrates the future if we do not act immediately to halt destruction and support biodiversity.

The Green Expectation Strategy implemented by Three Rivers in 2015 has achieved a number of successes from 100% green energy in Three Rivers House, 3 Green Flag Awards for its' parks to new cycling and walking networks and electric vehicle charging points to name but a few.

Through the new Climate Change and Sustainability Strategy the Council will aim to engage the community to work together to create healthier lifestyles, enhance biodiversity and grow economies. The Strategy will reduce carbon emissions through regular measurement, explore further decentralised energy projects for the Council and aim to inspire local businesses to do the same.

The new local plan will require the highest standards of design and construction requiring major projects to submit Sustainability Statements and non-residential buildings to achieve the highest BREEAM ratings. All new development will see a net gain in diversity together with measures to mitigate against flooding. The Strategy will work with stakeholders to drive down carbon emissions from existing buildings encouraging owners to make maximum use of grant funding opportunities.

Three Rivers has a rich biodiversity and this Strategy will ensure it is protected and enhanced to stop the decline. Hertfordshire grasslands and wetlands are in retreat. The biodiversity objectives will ensure that options to reverse this trend are considered and implemented. The high consumption throw-away society we live in is having devastating impacts on the planet and population. This Strategy will focus on enhancing the circular economy by aiming to increase reuse and recycling thereby minimising waste entering landfill.

Water consumption in Hertfordshire is the highest in the country and this precious water is extracted from the rarest of global habitats – chalk streams. Combine this with sewage and plastic pollution and water security rare habitats are threatened. This Strategy will seek to work with stakeholders to reduce consumption and prevent pollution as well as reduce flood risks. Areas within Three Rivers are at risk of flooding from rivers, surface water, groundwater, sewers and reservoirs plus with the effects of climate change the risk of flooding is enhanced so mitigation to reduce flood risk are integral to the Strategy.

This Strategy will also enable and encourage Sustainable Travel to reduce reliance on carbon-fuelled transport and improve air quality through the Walking and Cycling Strategy with support for electric vehicles, car clubs and car sharing.

**Phil Williams,**  
**Lead Member for Environmental Services and Sustainability.**

## Glossary

**BEIS:** Department for Business, Energy & Industrial Strategy

**BREEAM:** Building Research Establishment Environmental Assessment Method - the world's longest established method of assessing, rating, and certifying the sustainability of buildings.

**CHP: Combined heat and power** a highly efficient process that captures and utilises the heat that is a by-product of the electricity generation process. By generating heat and power simultaneously, CHP can reduce carbon emissions by up to 30% compared to the separate means of conventional generation via a boiler and power station.

**CV:** Calorific Value - The calorific value of LFG can be defined as the amount of heat produced on combusting a unit volume of gas

**GHG: Green House Gas**

**KWh:** Kilo watt hour (1000 watts)

**MWh:** Megawatt hour (1 million watts)

**GWh:** Gigawatt hour (1 billion watts, 1000 megawatts)

**CO<sub>2</sub>e:** Carbon dioxide equivalent - For any amount of any gas, it is the amount of CO<sub>2</sub> which would warm the earth as much as that amount of that gas. Thus it provides a common scale for measuring the climate effects of different gases.

**Kt CO<sub>2</sub>:** kilo tonnes of carbon dioxide

**t CO<sub>2</sub>:** tonnes of carbon dioxide

**MWp:** Mega Watt peak, a solar power measure in photo-voltaic (PV) industry to describe a unit's nominal power

## Introduction

In 2019 Three Rivers District Council declared a Climate Emergency and committed to achieving carbon neutrality by 2030 for its own emissions and it will assist the District to achieve zero carbon in line with the Government target by 2050.

The greenhouse gas emissions causing climate change are a product of our 'take-make-waste' extractive economy, which relies on fossil fuels and does not manage resources for the long-term. Three Rivers District Council through this strategy are committing to a step change in how we tackle climate change and sustainability with the following principles embedded in all aspects of the functioning and development of Three Rivers:-

- Enabling and Engaging the Community
- Minimise Carbon dioxide emissions
  - Alternative sources of Energy
  - Sustainable Design and Construction
  - Reduce Emissions from Existing Buildings
- Enhance and Protect Biodiversity
- Reduce Water consumption and pollution
- Climate Resilience and Flooding
- Reduce Waste and Promote Circular Economy
- Increase Sustainable Travel and improve Air Quality

## Chapter 2: Background

There is now clear scientific evidence that climate change is happening. The average temperature at the surface of the Earth has risen by about 1°C since pre-industrial period, temperature of the oceans is increasing, polar ice and glaciers are melting, sea levels are rising, and more extreme weather events are being seen around the world. It is likely the UK will experience at least another half a degree temperature increase by 2050, and expect 3cm to 27cm of sea level rise in different parts of the UK, a 10% increase in heavy rainfall, and 50% chance of each summer being hotter than 2018.<sup>1</sup> If global greenhouse gas emissions are brought rapidly to Net Zero in the second half of this century UK temperatures (and rainfall) could be kept close to their level in 2050. However, sea levels in the UK would continue to rise, as they respond more slowly to changes in global temperature.

If we take action to radically reduce greenhouse gas emissions now, we may be able to limit the increase in temperature to 2°C above pre-industrial levels. Doing so will limit the burden we put on future generations, protect our economies and provide wider benefits to health, energy security and biodiversity. In addition scientific opinion strongly connects the rise in pandemics to the abuse and destruction of biodiversity. The health and economic impact of COVID 19 starkly demonstrates the future if we do not act immediately to halt the destruction.

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<sup>1</sup> <https://www.theccc.org.uk/2020/04/21/how-much-more-climate-change-is-inevitable-for-the-uk/>

### Chapter 3: Progress to Date

The Council has been working towards the aims and objectives in the Green Expectations Strategy 2015 - 2019, across 8 broad themes and cross cutting themes of economic development, partnerships, inclusion, education and promotion and health. There has been significant progress across Three Rivers.

- Three Rivers House uses 100% Green Energy
- Enhanced natural habitats
- LED Lights used in Three Rivers House and the two Leisure Centres
- Three Rivers has 3 Green Flag awards and is working towards its' fourth
- Countryside Management Plans for key green spaces
- Recycling Rates are the highest in Hertfordshire and third highest nationally at 63% (2018/19)
- Single Use plastics removed from all Council operations
- Active members of Hertfordshire Refill Scheme
- Active members of WasteAware (the campaign branch of the Hertfordshire Waste Partnership)
- Three Rivers works with the lead flood authority to mitigate risks and flooding and ensuring new development are not subject to unacceptable flooding
- The walking and cycling strategy has helped develop and create local networks together with installing a cycle hub at Leavesden Park, new high-density bike parks at local Rail Stations and cycle parking at every retail centre.
- Better Buses Programme has enabled 80,000 bus trips around the district, saving 58% carbon for each trip
- Electric Vehicle Charge Points have been installed for the use of visitors and residents in local car parks, with Three Rivers District having the highest number of public charge points in Hertfordshire, supporting the shift from carbonised travel.
- Three Rivers Leisure achieved a "very good" BREEAM rating for the extension of South Oxhey Leisure Centre
- Development managers promote the highest standards of sustainability at pre-application stage.

## Chapter 4: Climate Change Mitigation

The government has committed the UK to end its contribution to Global warming by 2050. Net zero means any emissions must be balanced by schemes to offset an equivalent amount of greenhouse gases.

	Three Rivers				England	
Year	2005	2017	% of Grand Total	% reduction	2017	% of Grand Total
A. Industry and Commercial Electricity	101.2	42.6	7%	-58%		
B. Industry and Commercial Gas	35.2	25	4%	-29%		
C. Large Industrial Installations						
D. Industrial and Commercial Other Fuels	17.2	10.2	2%	-41%		
E. Agriculture	1.9	1.7	0%	-11%	3,527	1%
<b>Industry and Commercial Total</b>	<b>155.4</b>	<b>79.6</b>	<b>14%</b>	<b>-49%</b>	<b>103,993</b>	<b>36%</b>
F. Domestic Electricity	93.9	42.1	7%	-55%		
G. Domestic Gas	130.4	111.1	19%	-15%		
H. Domestic 'Other Fuels'	5.1	5.6	1%	10%		
<b>Domestic Total</b>	<b>229.4</b>	<b>158.8</b>	<b>27%</b>	<b>-31%</b>	<b>78,090</b>	<b>27%</b>
I. Road Transport (A Roads)	57.5	43.6	8%	-24%		
J. Road Transport (Motorways)	216.3	232.6	40%	8%		
K. Road Transport (Minor Roads)	64	65.4	19%	2%		
L. Diesel railways	0.2	0.2	0%	0%		
M. Transport Other	1.5	1.3	21%	-13%		
<b>Transport Total</b>	<b>339.4</b>	<b>343.1</b>	<b>59%</b>	<b>1%</b>	<b>106,234</b>	<b>37%</b>
Transport Total excluding motorways	123.1	110.5	19%	-10%		
LULUCF Net Emissions	-1.9	-3.6		89%	-5,104	
<b>Grand Total</b>	<b>722.4</b>	<b>577.9</b>		<b>-20%</b>	<b>286,741</b>	
Grand Total excluding motorways	506.1	345.3		-32%		
Population (mid-year estimate)	84,305	92,641		10%	55,620,000	
<b>Per Capita Emissions (t)</b>	<b>8.6</b>	<b>6.2</b>		<b>-28%</b>	<b>4.3</b>	
Per Capita Emissions (t) excluding motorways	6.0	3.7				

Figure 1: Kt CO<sub>2</sub> by sector

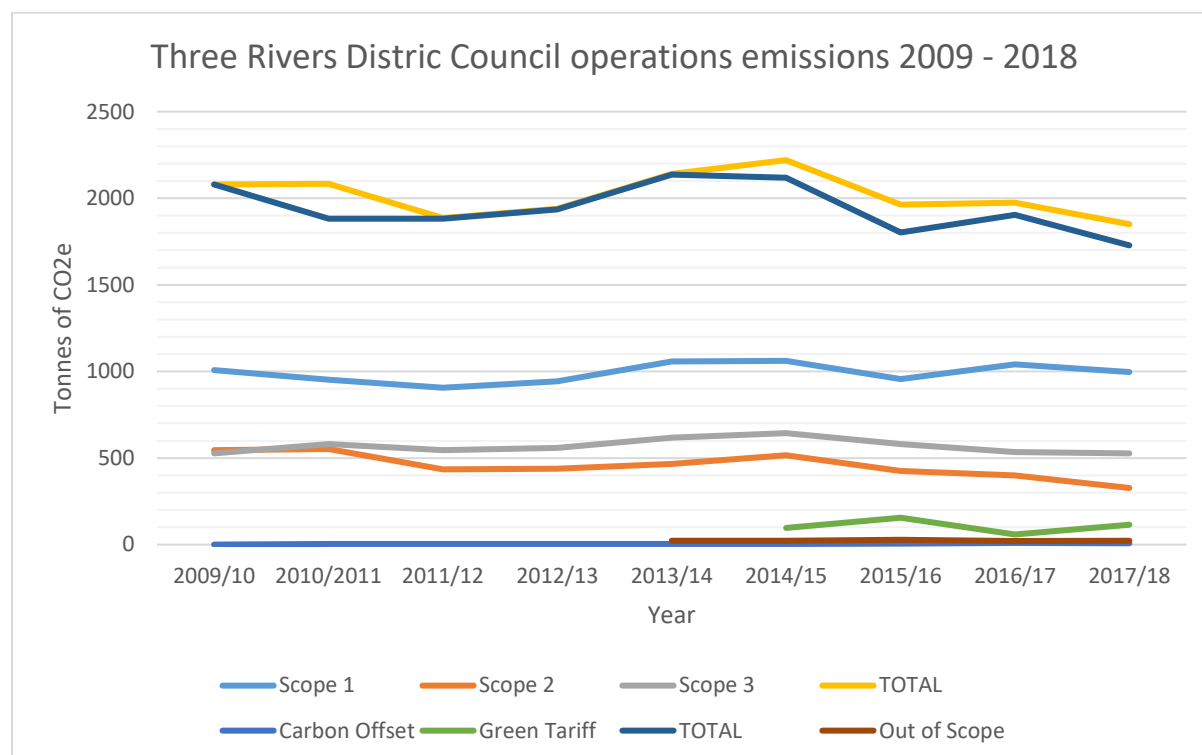
Three Rivers District emissions in 2017 were 577 kt CO<sub>2</sub>, which equates to 6.2t CO<sub>2</sub> per capita, a decline of 28% since 2005 which ranks Three Rivers as 40<sup>th</sup> of 53 authorities in the East of England. This compares to the average amount per capita in England of 4.3t CO<sub>2</sub>.

In 2017 27% of District emissions are from the domestic sector identical to the rest of the England. The industrial and commercial emissions were 14% of all emissions, compared to 36% in England.

Conversely transport emissions were 59% for TRDC compared to 37% for England. This is due to the M25 which represents 40% of all our district emissions.<sup>2</sup>

<sup>2</sup> 2005-17\_UK\_local\_and\_regional\_CO2\_emissions\_tables

Council operations 2017/18 emitted 1.729kt CO<sub>2</sub>, which is 0.3% of the district emissions. Since measurement started in 2010 emissions have dropped by 11% excluding carbon offset. (17% with). This is partly reflective of the solar panel installations in 2010.



Three Rivers District Council, GHG emissions report 2017/18 – Baseline year 2009/10

#### GHG EMISSIONS - SUMMARY

Table 1: Summary Scopes GHG emissions

Tonnes of CO <sub>2</sub> e	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Variation from 2009/10	Variation from 2016/17
Scope 1	1007.4	951.8	906.0	943.0	1057.8	1061.2	955.6	1040.2	996.0	-1.1%	-4.2%
Scope 2	545.3	552.1	435.3	439.0	465.6	515.3	425.6	399.2	327.2	-40.0%	-18.0%
Scope 3	527.1	580.2	545.2	558.1	617.0	643.7	581.3	534.4	527.0	0.0%	-1.4%
<b>TOTAL</b>	<b>2079.8</b>	<b>2084.1</b>	<b>1886.5</b>	<b>1940.1</b>	<b>2140.3</b>	<b>2220.2</b>	<b>1962.5</b>	<b>1973.7</b>	<b>1850.2</b>	<b>-11.0%</b>	<b>-6.3%</b>
Carbon Offset		0.3	4.7	3.9	3.7	4.1	5.2	9.9	8.0		-19.4%
Green Tariff						96.8	155.5	58.7	114.2		94.5%
<b>TOTAL</b>	<b>2079.8</b>	<b>2083.8</b>	<b>1881.9</b>	<b>1936.2</b>	<b>2136.6</b>	<b>2119.3</b>	<b>1801.8</b>	<b>1905.0</b>	<b>1727.9</b>	<b>-16.9%</b>	<b>-9.3%</b>
Out of Scope					23.2	22.8	28.0	20.9	22.3		6.7%

## Alternative sources of Energy

In 2018 Three Rivers had 639 sites generating renewable electricity 638 of which are Solar PV and one is gas from sewage at Maple Cross Lodge. Capacity is 5.3 MW which represented a 1.4% growth on the previous year compared to the national average for the UK of 11%.<sup>3</sup>

Coursers Farm AD plant which processes the district's food waste and some general waste and converts it to electricity. Three Rivers consumes on average per household per annum 4300kWh of electricity a total of 334 GWh. This ranks TRDC at 31 out of 45 local authorities classified in the region "East" in terms of highest electric consumption.<sup>4</sup>

Renewable energy produced within Three Rivers (0.0053 GWh) meets approximately 0.0016% of the electricity consumed (334 GWh) which is significantly below the national levels of 33% generated from renewable sources of energy including wind, solar, bioenergy, hydro, tidal and others.<sup>4</sup>

Decentralised energy is energy generated near to the end user and is either used or sold by small-scale locally focused suppliers. Energy can be generated using renewable sources such as solar, wind and hydro power, biomass, combined heat and power plants (CHP). Decentralised energy projects can generate lasting cost and carbon savings, and protect against future energy price rises. They can also deliver broader social objectives such as ensuring security of supply and addressing fuel poverty. Local authorities across the country are beginning to realise the opportunity for example the 34.7MWp scale solar and battery storage farm built by Warrington Borough Council,<sup>5</sup> and the long established Thamesway Group funded by Woking BC which operates solar farms, district heating and CHP plants.<sup>6</sup>

The GHG emissions, according to the BEIS reporting system, are categorised between Scopes 1 – 3, where;

**Scope 1 (Direct emissions):** Emissions from combustion in owned or controlled boilers, furnaces, vehicles. This includes natural gas or other type of liquid fuel to heat buildings for this guidance advises to calculate carbon dioxide emissions based on the gross calorific value (CV). This scope also includes travel undertaken in vehicles owned or controlled by TRDC (fleet).

**Scope 2 (Indirect emissions):** Emissions resulting from electricity used in for council-owned buildings. Compared with previous years this section has been divided into two different emissions one is reporting emissions from electricity generation which are reported within Scope 2 and a second one is reporting emissions from Transmission & Distribution which are counted within Scope 3.

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<sup>3</sup> <https://www.gov.uk/government/statistics/regional-renewable-statistics>

<sup>4</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/853754/Sub-national\\_electricity\\_consumption\\_statistics\\_2005-2018.xlsx](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/853754/Sub-national_electricity_consumption_statistics_2005-2018.xlsx)

<sup>5</sup> <https://www.warrington.gov.uk/news/gridserve-completes-game-changing-hybrid-solar-farm-warrington-borough-council>

<sup>6</sup> <https://www.theade.co.uk/members/district-heating/woking>



**Scope 3 (Indirect - labelled Well to Tank (WTT)):** Emissions that are a consequence of council actions, which occur at sources which Three Rivers doesn't own or control and which are not classed as scope 2 emissions. This is now inclusive of the emissions from the Electricity Transmission and Distribution (T&D) and the WTT of electricity generation and T&D. Emissions from miles travelled for business purposes in staff owned vehicles, contracted services with no control and emissions from extracting, processing and transporting of fuel.

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## **Chapter 5 Three Rivers District Council Climate Change and Sustainability Strategy**

**Three Rivers District Council declared a climate emergency in 2019 and have committed to achieving net zero for its's own emissions by 2030, and will implement plans and milestones to ensure the District achieves the legislative target of Net Zero by 2050.**

### **Enabling and Engaging the Community**

**Aim: To inspire all stakeholders and residents of Three Rivers to work together to achieve carbon neutrality and adopt sustainable choices and lifestyles.**

Three Rivers together with the community have an opportunity to lead a new low carbon future giving cleaner, healthier lifestyles where the local economy thrives through the growth of sustainable and green businesses. Inspiring residents to be part of the change and take pride in their area - contributing to biodiversity, changing behaviours to reduce their own emissions, water consumption and waste and buying local produce..

#### **Objectives:**

- Engage with all departments across the Council to ensure a cohesive determination to produce and implement plans that lead to sustainable changes.
- Engage with local businesses, relevant corporates, schools, parish councils, highways, and campaign / conservation groups to produce climate change and sustainability action plans that they can feel part of, and inspired to implement.
- Develop a sustainable procurement strategy for Three Rivers which is used across all council departments.

## **Minimise Carbon dioxide emissions**

The key to reducing emissions from energy is to reduce consumption, improve efficiency and move towards decentralised and renewable sources. In order to reach carbon neutrality by 2050 for its own operations, as well as influencing the emissions of other individuals and organisations, Three Rivers will need to take ambitious actions.

## **Alternative sources of Energy**

In the next 15 years, the energy demand of the country is expected to be the same or marginally decrease.<sup>7</sup> In order to meet the energy needs and our net zero emissions commitment before 2050, a significant amount of alternative sources will need to be deployed within Three Rivers.

**Aim: Use decentralised energy sources to reduce carbon emissions in the District.**

### **Objectives:**

- Measure Council and District carbon emissions to identify reduction targets and the mitigation required to meet neutrality by 2050. Review bi-annually.
- Consider the business case for investment in a decentralised energy project. Working either independently or in partnership with others in Hertfordshire.
- Share learnings with stakeholders and businesses in the District to inspire others to start their own decentralised energy projects.

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<sup>7</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/794590/updated-energy-and-emissions-projections-2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/794590/updated-energy-and-emissions-projections-2018.pdf)

## **Sustainable Design and Construction**

**Aim:** The highest standards of sustainable design and construction should be achieved to create adaptable buildings which are resilient to the effects of climate change, which minimise the use of natural resources over the intended lifetime of a development.

### **Objectives:-**

- All development must take into account opportunities to mitigate the effects of climate change and use resources efficiently. Major developments will be required to submit a Sustainability Statement to demonstrate how the development will mitigate and adapt to climate change over its lifetime.
- All proposals for development will be designed sensitively to build in resilience to extreme weather events by managing flood risk, enhancing the Green Infrastructure Network and protecting and enhancing the natural environment. In addition design must optimise passive solar gain, whilst reducing the risk of overheating.
- For major non-residential developments, proposals should aim to achieve BREEAM 'Excellent' or 'Very Good' Standard
- To lobby government to ensure Building Regulations do adopt the Future Homes Standard by 2025 to ensure new build homes are future proofed with low carbon heating and exceptional levels of energy efficiency.

## **Reduce Emissions from Existing Buildings**

**Aim:** Improve industrial, commercial and domestic energy efficiency in the District in existing buildings.

### **Objectives**

- Publicise and assist the accessibility of any grants or incentive schemes which help reduce the carbon emissions of existing buildings including the councils own.
- Work with the utility companies to improve energy efficiency in homes.
- Ensure contracts on council owned buildings have mechanisms such as energy performance contracts to minimise emissions<sup>8</sup>
- Encourage the reduction of greenhouse gas emissions from existing properties in the District in line with our Home Energy Conservation Act priorities.
- Work with schools and housing associations to ensure action plans are in place to achieve net zero by 2050.

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<sup>8</sup> <https://www.gov.uk/government/publications/energy-performance-contract-epc>

## Enhance and Protect Biodiversity

**Aim:** To plan for net gains in biodiversity to offset greenhouse gas emissions, build climate resilience, and protect and enhance precious habitats.

Biodiversity is critically important to our wellbeing, and economic prosperity but is consistently undervalued in economic decision making. It provides us with a range of services from clean air and water to pollination of our crops and flood prevention. 30% of the services we get from UK ecosystems are in decline. Climate change is a key contributor to this decline.<sup>9</sup>

Fortunately nature can be a key player in resolving the climate change crisis – research has found it can deliver at least 30 percent of the emissions reductions needed by 2030 to prevent climate catastrophe. It will play a key part in the mitigation strategy.<sup>10</sup>

Three Rivers has a rich diversity of habitats and species which are managed sustainably and protected from harm so that wildlife can flourish and everyone can enjoy them and gain health and wellbeing from doing so. Hertfordshire's unimproved grasslands and wet lands are in retreat together with the habitats that reside in them meaning 19% of Hertfordshire species are at risk of extinction.<sup>11</sup>

### Objectives:

- All development will result in a net gain for biodiversity.
- Continue to sustainably manage Three Rivers District Council woodlands and parkland through co-ordinated management plans.
- Develop a management plan for playing fields and grassland to explore options for rewilding grasslands and tree planting where appropriate.
- Engage stakeholders to improve biodiversity through rewilding, tree planting and enhancing wildlife corridors
- Develop a tree resilience strategy for Three Rivers District Council which includes trees outside of managed woodlands.
- Assess how biodiversity can be further enhanced in the district as a mitigation policy against carbon emissions and provide resilience to the effects of climate change.

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<sup>9</sup> UK National Ecosystem Assessment, <http://uknea.unep-wcmc.org>, 2011

<sup>10</sup> <https://www.conservation.org/blog/why-is-biodiversity-important>

<sup>11</sup> <https://www.hertswildlifetrust.org.uk/stateofnature>

## **Reduce Waste and Promote Circular Economy**

**Aim:** To reduce the amount of waste produced and manage it sustainably through promoting a more circular economy

“In 2015, about two-thirds of the material we scratched from the planet slipped through our fingers. More than 67 billion tons of hard-won stuff was lost, most of it scattered irretrievably. Plastic trash drifted into rivers and oceans; so did nitrates and phosphates leaching from fertilized fields. A third of all food rotted, even as the Amazon was deforested to produce more. Think of an environmental problem, and chances are it's connected to waste.”<sup>12</sup>

As consumption grows, ease of access to consumer goods increases, and the throw-away culture thrives, these issues continue to intensify leading to devastating impacts on our planet and population.

### **Objectives:**

- Further reduce waste and increase recycling and reuse within Council operations
- Reduce the amount of household and commercial waste produced, and minimise waste entering landfill through maximisation of reuse and recycling.
- Maintain our position as the highest recycling authority in Hertfordshire.
- Continue to be a member of the Hertfordshire Waste Partnership
- Consider all suitable technology when replacing fleet vehicles to reduce their carbon footprint, and continue to use them for promotion of reuse and recycling.
- Extend the plastic free policy of the council by encouraging the local communities to adopt “plastic free”.
- Lobby government to re-introduce cookery and vegetable growing combined with a sustainable approach, into the school curriculum.

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<sup>12</sup> <https://www.nationalgeographic.com/magazine/2020/03/how-a-circular-economy-could-save-the-world-feature/>

## Water

### **Aim: Reduce water consumption and prevent contamination of our river network**

Water and energy are inextricably linked, with water and waste water services contributing nearly 3% of the UK's CO<sub>2</sub> emissions. The effect of climate change indicates a 5% loss of water resource available by 2035 which will have a significant impact on water resources in the UK. Water is typically taken for granted, however, the system is under pressure. Water availability and use is likely to be one of the key ways through which the effects of climate change are felt.

The East of England is the UK's driest region, and Hertfordshire is one of the driest counties with average rainfall returning only two thirds the national average. People in Hertfordshire use more water than any other county in the UK (8% above the national average).

The average unmetered usage of water in Hertfordshire was 170 litres per person per day in 2014. Unmetered water usage has decreased since 2004 from a high of 188 litres per person per day. Compared to the National Average of 142 litres per day.<sup>13</sup>

Chalk Stream in Crisis 2020 produced by the Rivers Trust reported low flows and chronic over abstraction which means chalk streams are at extreme risk. Many of these globally rare habitats already have long dry sections, some in our area for many years. In addition the sewage overflows and pollutants which end up in the rivers and affect local habitats means our three rivers in the district are under severe pressure. They need intervention to preserve them and their vital habitats, and their ability to continue to supply us with quality drinking water into the future.

### **Objectives**

- Reduce water consumption by working with the water companies to identify priorities and setting action plans
- Support developments which adopt the tougher water efficiency target of 110 litres per household per day and for non-residential development should achieve a rating of BREEAM excellent for water efficiency.
- For existing buildings support opportunities to improve water efficiency measures when refurbishment or change of use of existing buildings is taking place.
- Use political pressure to challenge Thames Water to accelerate plans to improve infrastructure to prevent sewage discharge into the Chess
- Provide infrastructure and support education to prevent littering which can end up polluting rivers

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<sup>13</sup> <https://www.hertfordshire.gov.uk/microsites/building-futures/a-sustainable-design-toolkit/technical-modules/water/water-facts.aspx>



## **Climate Resilience and Flooding**

Areas within Three Rivers are at risk of flooding from rivers, surface water, groundwater, sewers and reservoirs and the effects of climate change are predicted to increase the risk of flooding in the District. As a means of assessing levels of risk, the Council in conjunction with adjoining authorities in South West Hertfordshire commissioned a Strategic Flood Risk Assessment (SFRA). Over 2400 properties in Three Rivers are at high risk of flooding. The Colne and Gade catchments were identified as highly sensitive.

### **Aim: Mitigate increasing flood risk**

Warmer wetter winters and more severe weather, as a result of climate change, are likely to increase the risk of flooding in the future.

### **Objectives**

- Developments must be safe and resilient to flooding.
- Flood risk assessments for developments depending on their level of risk and size will be required.
- Mitigate flood risk by using sustainable drainage systems.
- Ensure that new development is not subject to unacceptable risk of flooding, does not unacceptably exacerbate flooding elsewhere and where practicable reduces existing flood risk.

## **Increase Sustainable Travel and improve Air Quality**

**Aim:** Enable and encourage journeys made by Sustainable Transport modes to reduce carbon fuel reliance, improve local Air Quality and build Economic and Social Sustainability

Three Rivers actively contributes to the achievement of our national Cycling and Walking targets by working closely with every relevant partner to meet our shared policy objectives to reduce the reliance of local people on carbon-fuelled transport. Key programmes include Better Buses, Walking and Cycling, Sustainable Travel Planning, Parking Management and Streetscape Improvement, all of which promote modal shift towards decarbonised travel choices.

### **Objectives**

Enable and encourage cycling and walking trips to replace carbon fuelled trips, through the latest Walking & Cycling Strategy

Promote and improve public experience and perception of passenger transport (bus and rail) services

Reduce the impact on carbon emissions and local air quality of travel associated with Council operations

Promote and deliver Sustainable Transport interventions to replace carbon-fuelled journeys with low-carbon options, including support for electric vehicles, car clubs, car sharing.

Monitor and review air quality across the District to determine whether national air quality objectives are being met.