

## CONTENTS

### **1 Executive Summary**

### **2 Introduction**

- 2.1 BACKGROUND
- 2.2 THE NEED FOR A CARBON REDUCTION STRATEGY
- 2.3 PURPOSE OF THE CARBON REDUCTION STRATEGY
- 2.4 WORK ALREADY COMPLETED

### **3 Baseline**

- 3.1 INTRODUCTION
- 3.2 SUMMARY OF 2019 BASELINE

### **4 Reduction Strategy and Target Date**

- 4.1 INTRODUCTION
- 4.2 PROPOSED CARBON REDUCTION TRAJECTORY

### **5 Achieving Net Zero**

- 5.1 INTRODUCTION
- 5.2 INDICATIVE ACTIONS REQUIRED TO REDUCE THE TRUST'S CARBON FOOTPRINT
- 5.3 FIRST ANNUAL ACTION PLAN
- 5.4 THE POTENTIAL FUTURE ROLE OF OFFSETTING
- 5.5 REFERENCES

## 1 EXECUTIVE SUMMARY

---

A Carbon Reduction Strategy relies on three main inputs:

- **A baseline (against which reductions can be measured and tracked):**
  - This is the total GHG emissions that are caused by WWT and its subsidiaries and which are therefore under the direct control of the Trust
  - WWT's baseline is an emissions total of **524.3 t CO<sub>2</sub>e**
- **A target year to achieve net-zero:**
  - This date is then used to calculate a proposed carbon reduction trajectory
  - WWT's target to achieve net-zero is **2030**
- **An annual carbon budget that informs the annual action plan:**
  - These plans deliver the carbon reductions required to meet the chosen trajectory
  - WWT's first annual plan will reduce emissions by **192 t CO<sub>2</sub>e, 37%** of the baseline total

## 2 INTRODUCTION

---

### 2.1 BACKGROUND

Warwickshire Wildlife Trust (WWT) forms part of a network of 47 independent organisations which comprise 46 wildlife trusts, and a central organisation called the Royal Society of Wildlife Trusts. WWT is the leading conservation body for Warwickshire, Coventry and Solihull and is responsible for over 65 nature reserves which cover an area of 1,064 hectares. WWT is the sole owner of [Middlemarch Environmental Ltd](#), one of the UK's leading ecological consultancies, and joint owner (along with 5 other Wildlife Trusts) of [Wildlife Fundraising \(Central\) Ltd](#), a member recruitment company.

WWT's core mission is to protect and restore biodiversity. It does this by managing its existing estate for biodiversity and by increasing the area of land it manages or can successfully influence. This mission therefore delivers a range of biodiversity and biodiversity 'net gain' benefits, but also provides important ecosystem services. Historic carbon storage, as well as ongoing carbon sequestration, is one such ecosystem service, and this aspect of WWT's operation has become increasingly important recently due to the climate emergency, the 2015 Paris Agreement, and legally binding carbon reduction obligations included in the UK's carbon budgets.

### 2.2 THE NEED FOR A CARBON REDUCTION STRATEGY

Along with many other organisations WWT has become more conscious of its own impact on the environment as it carries out its work. This has been prompted most recently the UK Government's 'Net Zero 2050' law which requires the UK to bring greenhouse gas emissions to net zero by 2050.

Net Zero 2050 has therefore prompted all organisations to evaluate their carbon footprints and re-evaluate how they undertake their operations.

WWT is no exception. The Trust has completed its first carbon footprint (GHG inventory) and has now designed this Carbon Reduction Strategy to help it respond to the challenges required by Net Zero 2050. These activities can yield a range of benefits which contribute to the core mission of the Trust.

This report therefore provides WWT with the second component of its carbon reduction ambitions, and sets a baseline against and time-bound target for reaching 'net zero'.

# Carbon Reduction Strategy 2021 – 2030



It should be noted that WWT is undertaking this exercise voluntarily as it is not required - by law or otherwise - to measure or report its GHG emissions or to provide a Carbon Reduction Strategy. However, the Trust believes that all facets of the conservation sector (and wider business community) should adopt the level of ambition called for by Net Zero 2050, and by doing so deliver a credible response to the climate emergency.

## 2.3 PURPOSE OF THE CARBON REDUCTION STRATEGY

WWT is committed to reducing its existing GHG emissions to net zero and this document sets out how this objective will be achieved.

The purpose of this Carbon Reduction Strategy (CRS) is to set a level of ambition and trajectory for carbon reduction. It does not, however, set out in precise detail how reductions will be achieved.

This CRS is based on two core pieces of information:

- **The baseline position of the Trust:**
  - This is the total GHG emissions that are caused by WWT and its subsidiaries and which are therefore under the direct control of the Trust.
  - The baseline is recorded in the first iteration of WWT's carbon footprint (completed during 2021) and was based on data from 2019 to exclude the exceptional circumstances for most of 2020 and 2021.
- **A target date by which Net Zero will be achieved:**
  - Net Zero 2050 includes all aspects of the UK economy and society and the UK Government therefore has a maximum of 30-years to achieve this goal.
    - The interim target for the UK Government is a 78% reduction on the 1990 baseline by 2035.
  - For smaller organisations, which are responsible for a tiny fraction of total UK emissions, it is important that a shorter duration is adopted.
    - There is no right or wrong answer for a net zero target date, but most commentators would suggest that reducing as much as possible as soon as possible is required to meet the Paris Agreement.
    - Achieving net zero for example by 2030 is common among public sector organisations, and the wider UK conservation movement is roughly aligned to this date.

Once the above have been defined, it enables the Trust to design and deliver **annual action plans** (a form of 'carbon budget') that deliver the core objective of the CRS (i.e. achieving net zero).

Net zero refers to achieving a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere. There are two different routes to achieving net zero, which work in tandem:

- **Reducing existing emissions:**
  - This involves making decisions about how a carbon footprint can be reduced.
  - It is based on analysing an existing GHG inventory representing business as usual, and delivering new activities that lead to real/measurable reductions in GHG emissions.
  - Changes to business as usual are therefore required, and these should be delivered *before* an organisation considers offsetting options (because offsetting too soon undermines the commitment to abate carbon emissions). Therefore, the point at

which an organisation declares net zero can be uncertain, and year-to-year variations in business activity can mean that the end-goal remains dynamic.

- **Actively removing greenhouse gases:**
  - This involves undertaking new activities that lead to the permanent sequestration of carbon dioxide. Such activities are intrinsic to a Wildlife Trust's core mission. This approach is often referred to as nature-based solutions, and these form a central part of Net Zero 2050.
  - However, this should not be relied on, and it is important that Trusts work to reduce their own carbon emissions rather than relying on existing habitats, many of which may not provide a credible carbon sink.

A *gross-zero* target would mean reducing all emissions to zero. This is not realistic, so instead the *net-zero* target recognises that there will be some emissions but that these need to be fully offset, predominantly via nature-based solutions.

## 2.4 WORK ALREADY COMPLETED

During 2020/21 WWT has considered how it should respond to the climate emergency and the new demands faced by businesses as a result of the UK's Net Zero 2050 policy. This has included the following activities:

- **Completion of a carbon footprint (GHG inventory):**
  - This was prepared in accordance with the Greenhouse Gas Protocol which is the world's most widely used greenhouse gas accounting standards for companies.
  - The first iteration was completed in 2021, based on figures for the 2019 calendar year. This incorporates data from the Charity and its subsidiaries and provides WWT's carbon baseline against which reductions can be measured and tracked. See section 3.2 for a summary and access the full report here [\[LINK TO BE CREATED AND ADDED\]](#)
- **Research into low emission options for elements of our business:**
  - Upon completion of the baseline, research into ways of avoiding, eliminating and/or reducing the emissions associated with different elements of WWT's work started. This is an ongoing process which will continue throughout the lifetime of this strategy certainly until at least net-zero is achieved. In all cases savings in terms of t CO<sub>2</sub>e are calculated or estimated as accurately as possible and, where there is a financial implication, compared to the resources available. Both inform decisions taken in the annual action plans.

## 3 BASELINE

---

### 3.1 INTRODUCTION

2019 was selected as the baseline year in line with guidelines for the Collective Accounting approach led by The Wildlife Trusts, this being the most recent year in which Trust activities could be said to represent business as usual. Parameters and guidance were provided by TWT, along with a Carbon Emissions Calculator designed to ensure that, as far as reasonably possible, the data and conclusions drawn from it are relevant, consistent and accurate. With this in mind, data collection was limited to the following emissions sources:

# Carbon Reduction Strategy 2021 – 2030



- Scope 1: direct emissions from sources that are owned or controlled by the organisation, including fleet fuel (for vehicles and tools / machinery), LPG, gas, oil and biomass.
- Scope 2: indirect emissions from the generation of purchased electricity consumed by the organisation.
- Scope 3: all other indirect emissions that occur as a consequence of the activities of the organisation. This could include a wide range of emissions which are complex and time-consuming to calculate; WWT has chosen to follow the advice of the central team in restricting Scope 3 to grazing livestock, staff /volunteer mileage, staff commuting, electricity transmission & distribution, and water supply & treatment, at least for this first iteration of the calculation.

WWT has adopted the above approach for the following reasons:

- A GHG inventory represents a true and fair account of emissions, through the use of standardized approaches and principles.
- It provides data and contextual information that can be used to build an effective carbon reduction strategy to manage and reduce GHG emissions.
- It provides information that facilitates development of and participation in voluntary GHG reduction initiatives.
- It increases consistency and transparency in GHG accounting and reporting among the conservation sector, the wider UK business sector, and GHG-specific initiatives that the Trust may choose to become involved with in the future.

## 3.2 SUMMARY OF 2019 BASELINE

Carbon emissions for the WWT group (i.e. charity, Middlemarch and WFC Ltd) in 2019 totalled 524.3 t CO<sub>2</sub>e, which equates to:

- The emissions for circa 42-47 UK households
- Circa 614 passengers taking return flights from London to New York
- Around 1.9 million miles in the average medium sized petrol car
- Approximately five adult blue whales

Standard business metrics offer a useful way of tracking progress. In 2019, the WWT employed 126.1 FTE staff, group income was £7,836,550 and the Charity was responsible for 1,064 hectares of land (either through ownership or management agreements). Emissions can therefore be broken down as follows:

- 4.16 t CO<sub>2</sub>e per FTE employee
- 66.9 t CO<sub>2</sub>e per £1million group income
- 0.49 t CO<sub>2</sub>e per ha land
- 0.1 t CO<sub>2</sub>e from livestock only per ha land

The full Greenhouse Gas (GHG) Inventory for the WWT Group in 2019 is shown in the table on the next page:

# Carbon Reduction Strategy 2021 – 2030



Table 1. The WWT 2019 Greenhouse Gas (GHG) Inventory

Scope	Source	t CO2e	%
1	Middlemarch Fleet Fuel	115.7	22.1%
3	WWT staff commute	108.5	20.7%
3	Livestock	104.2	19.9%
3	Middlemarch staff commute	54.6	10.4%
2	WWT electricity consumption	31.8	6.1%
3	WWT volunteer mileage	25.7	4.9%
3	Middlemarch staff business	24.4	4.7%
3	WWT staff business mileage	17.3	3.3%
2	Middlemarch electricity	12.6	2.4%
1	WWT fleet fuel	10.3	1.9%
3	WFC Ltd recruiter mileage	8.0	1.5%
3	Electricity transmission &	3.8	0.7%
1	LPG (Parkridge)	3.1	0.6%
1	Wood chip (Brandon Marsh)	2.1	0.4%
3	WWT water supply and treatment	1.5	0.3%
3	Middlemarch water supply and	0.7	0.1%
<b>Total</b>		<b>524.3</b>	<b>100.0%</b>

Almost three quarters (73.1%) of the group's GHG emissions in 2019 can be attributed to four sources:

- Middlemarch fleet fuel
- WWT staff commute
- Livestock
- Middlemarch staff commute

A further 25.5% of emissions are attributable to electricity usage, volunteer & staff mileage, and WWT fleet fuel.

Fuel (LPG and wood chip) and water supply / treatment at group premises account for 1.4% of emissions.

The Trust recognizes that this GHG Inventory is not exhaustive and that future iterations may include other emissions sources; methods of calculation may also be refined leading to more accurate assessment of the Trust's carbon footprint.

## 4 REDUCTION STRATEGY AND TARGET DATE

---

### 4.1 INTRODUCTION

WWT understands and accepts its responsibility to monitor and record, as far as is practical and reasonable, greenhouse gas emissions from sources over which the Trust has controlling influence, with the ultimate aim of reducing these emissions as far as possible. The organisation is fully committed to achieving net zero emissions or better by 2030. In order to realise this ambition, the Charity, Middlemarch and WFC Ltd will work together to:

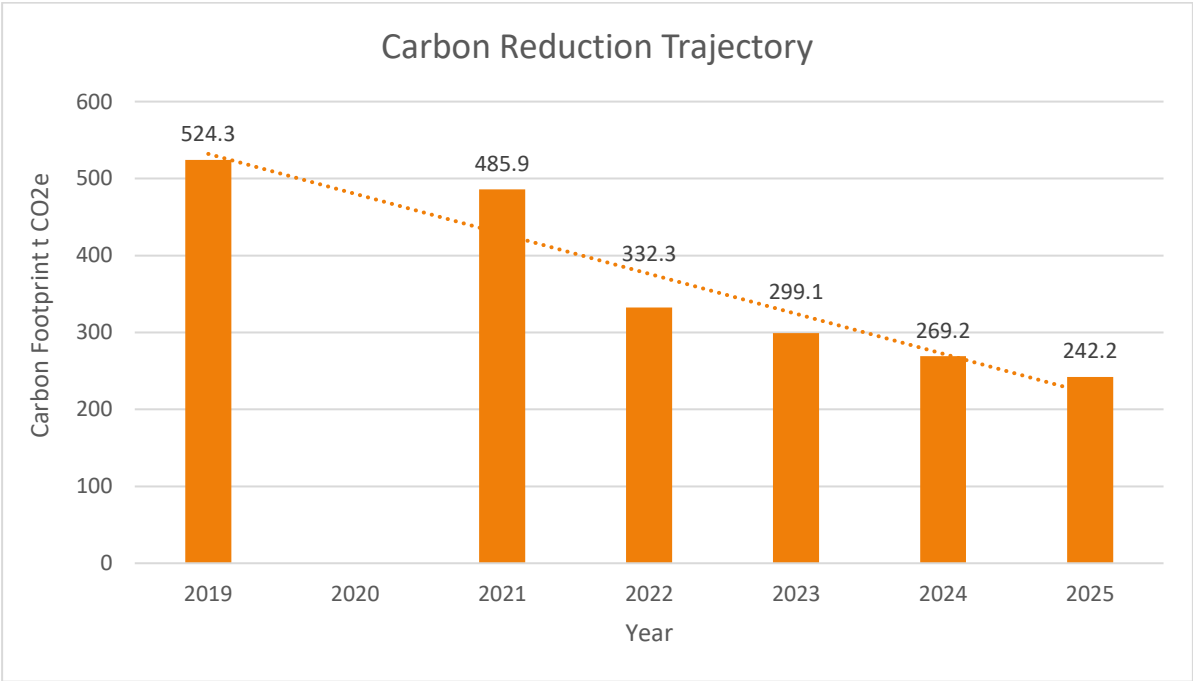
# Carbon Reduction Strategy 2021 – 2030



- Focus on reduction of emissions as the most effective and immediate action that the organisation can take in response to the climate crisis
- Embed consideration of carbon footprint into high-level decision making, strategic planning and routine operations
- Where relevant, ensure that organisational policies and procedures are informed by and support implementation of this Carbon Reduction Strategy as far as possible
- Raise awareness amongst staff of the importance of this strategy; provide training and resources that will support and encourage consideration of potential for emissions reduction in day to day activities and decision-making
- Review and adapt this Strategy and associated Action Plans on an annual basis.

## 4.2 PROPOSED CARBON REDUCTION TRAJECTORY

The point at which the ‘net’ part of net zero will be achieved and the Trust can no longer reduce emissions without compromising delivery of its core charitable objectives cannot be determined at this stage, the first step in a journey which might take a decade. Reducing carbon emissions is subject to a complex interplay of factors. At this stage, therefore, the proposed reduction trajectory is indicative only, and serves as a tool to help the Trust review progress and determine the point at which it has exhausted all reasonable options in cutting emissions. It is at this point that the Trust will determine how to offset residual emissions. For this first iteration, the target has been set out in the annual action plan (see Section 5.3); thereafter an annual reduction of 10% is proposed for the years 2023 – 2025, with the trajectory for the years 2026-2030 to be set out in due course on the basis of evidence as it emerges:



## 5 ACHIEVING NET ZERO

---

### 5.1 COMMITMENTS MADE IN ADOPTING THIS STRATEGY

WWT will:

- Ensure sufficient resources to deliver this strategy, recognising that, under current market conditions distorted in favour of fossil fuels, there is more often than not a financial cost to carbon reduction, but that the cost to wildlife of not changing is far greater
- Incorporate appropriate elements of cost related to this strategy into funding bids and contracts drawn up with funding partners
- Establish an evidence-led system by which WWT emissions are monitored and reviewed and annual footprint calculations produced
- Identify key personnel to deliver reduction in emissions year on year until emissions are as low as possible without comprising WWT charitable objectives
- Incorporate emission reporting into WWT governance to provide oversight of progress and authority for related expenditure
- Provide training and raise awareness across the whole of WWT of the importance and rationale for net-zero

### 5.2 INDICATIVE ACTIONS REQUIRED TO REDUCE THE TRUST'S CARBON FOOTPRINT

WWT will:

- Focus on two of the three largest emissions sources first (travel and fleet fuel)
- Participate and contribute to a collective Wildlife Trust discussion on emissions from livestock, and adopt measures based on recommendations developed across the movement
- Explore options / opportunities for reducing energy usage (buildings, tools/machinery)
- Consider out-of-scope emissions sources that clearly have an impact such as visitor travel, investment strategy, procurement, *etc*

### 5.3 FIRST ANNUAL ACTION PLAN

This is attached as a separate document and is based on actions focussed on various elements of the 2019 group GHG inventory (Table 1). Subsequent plans will be truly annual – this first spans the last quarter of 2021 and all of 2022.

### 5.4 THE POTENTIAL FUTURE ROLE OF OFFSETTING

WWT priority commitment is to the delivery of its charitable objectives and recognises that there may at times be a conflict between this essential work and the drive to eliminate carbon emissions. The role of livestock in conservation grazing is one case in point. Furthermore the ability of WWT to reduce emissions in some cases is limited. For example WWT can only ever encourage and help staff and volunteers to use low emission options when commuting on WWT business, it cannot control personal choice so it is inevitable that, for a variety of reasons, all scope 3 emissions cannot ever be eliminated.

Where such conflict arises and residual (i.e. left over after all reasonable reduction efforts) emissions remain, the Trust may reach a point where it can no longer reduce emissions without compromising



# Carbon Reduction Strategy 2021 – 2030



its ability to deliver these objectives. It is in these circumstances that the roles of offsetting and sequestration become particularly relevant.

Research carried out in 2021 (Quantifying the potential impact of Nature Based Solutions on Greenhouse gas emissions from UK habitats: RSWT) concluded that there are too few studies of greenhouse gas emissions from UK habitats, which are also extremely variable in biotic and abiotic factors over a range of spatial and temporal scales. This creates considerable uncertainty and difficulty in identifying habitat and land management approaches that are likely to generate reductions in GHG emissions. In short it is not going to be possible any time soon to confidently assess whether or not, or by how much, management of the WWT estate sequesters emissions.

The same challenges apply to offsetting WWT emissions by new management activity such as habitat creation though the same research also concluded that the conversion of arable and intensive grasslands to extensive species-rich grasslands can lead to a period of sequestration while higher levels of soil organic carbon are accumulated, but this will tail off to a new state of equilibrium, probably within decades.

These will remain active areas of interest and investigation by WWT. For the time being, at the start of this strategy, WWT will ensure that any future offsetting is ethical, genuine and truly additional to any sequestration currently delivered from our activities.

Furthermore offsets will not be incorporated into the Carbon Footprint Calculation until possibilities for emissions reduction are judged by the Trust to have been exhausted.

## 5.5 REFERENCES

The GHG Protocol:

<https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>

Specific guidance on the methods used:

[https://ghgprotocol.org/sites/default/files/Guidance\\_Handbook\\_2019\\_FINAL.pdf](https://ghgprotocol.org/sites/default/files/Guidance_Handbook_2019_FINAL.pdf)

[https://ghgprotocol.org/sites/default/files/standards/Scope3\\_Calculation\\_Guidance\\_0.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf)

[https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporting-Standard\\_041613\\_2.pdf](https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporting-Standard_041613_2.pdf)

Emissions were calculated using the Conversion Factors 2020, full set:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020>