

CWGC ENVIRONMENTAL SUSTAINABILITY REPORT 2022



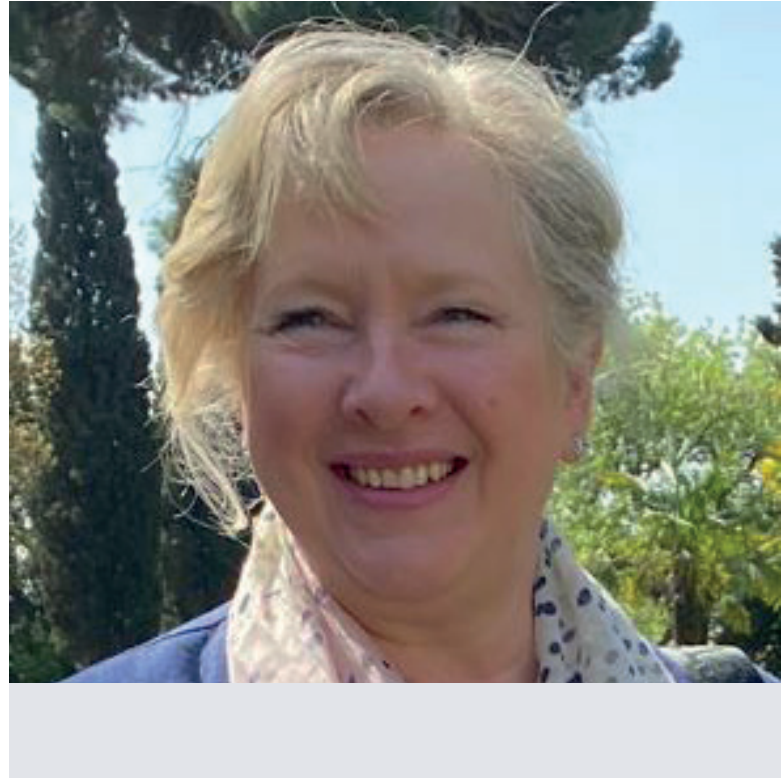
DISCOVER LEARN REMEMBER

FOREWORD

Welcome to the first of our annual Environmental Sustainability Reports.

As an international organisation with a sizeable global horticultural and heritage estate, we are fully committed to preserving and protecting the world we all share. For many years now we have been working to reduce our own negative impact, recent examples being significant reductions in chemical use and increasing green waste recycling, but as this report makes clear, only now have we begun to do so within an agreed global Environmental Sustainability Plan. Our recent commitment to a net-zero greenhouse gas emission target by no later than 2050 marked a very significant milestone for the Commission and this report sets out what has been achieved so far. We recognise, this is just the start.

Over recent times, we have ourselves experienced the dramatic and costly effects of climate change upon our Estate. Combatting and adapting to this will unquestionably be a key challenge over the next century. The challenge ahead is clear but there are also opportunities for us as custodians of tens of thousands of cemeteries and memorials all across the world to play our part in demonstrating new and more sustainable ways of working and adapting. This report describes what we have begun to do and also shows some of our efforts so far to protect and promote biodiversity. There is much ahead of us, but I am delighted at the ideas which have come forward, many from our like-minded and dedicated staff, and steps we've started to take.



We know that the most effective way of making changes to meet our sustainability targets is through our people, using their local expertise and knowledge to good effect, learning from each other and spreading good initiatives to other locations. To that end, I am proud of the local sustainability Leads and the Green Teams that have been created in all of our operating Areas and the way in which we can realise their creative ideas, in part, through our Green Fund. Indeed, wherever I engage with colleagues, I am constantly impressed by the desire of our people to work in a truly sustainable and responsible manner. When I speak with them, I know that we, as a global organisation, will succeed in our promise to be net-zero by 2050.

Claire Horton CBE
Director General
Commonwealth War Graves Commission

CONTENTS

FOREWORD	2
1. WHO WE ARE	4
2. SHAPING OUR SUSTAINABILITY AGENDA	7
3. TRANSITIONING TO MORE SUSTAINABLE WAYS OF WORKING	10
4. MANAGING OUR SUSTAINABILITY TRANSITION	16

Glossary

CWGC	Commonwealth War Graves Commission
GHG	Greenhouse gases
HO	Head Office
IT	Information Technology
Plan	Environmental Sustainability Plan
PMO	Project Management Office



1. WHO WE ARE

The Commonwealth War Graves Commission is a Royal Charter organisation which commemorates, in perpetuity, Commonwealth service personnel who fell in the First and Second World Wars. As part of this commemoration, we care for cemeteries, memorials and graves at 23,000 locations all over the world, situated in more than 150 countries.

Our work began more than a century ago, building the cemeteries and memorials that we care for today. Our mission is to preserve this unique cultural, horticultural

and architectural heritage and to ensure that the stories of those who died are told.

We have a global reputation for our enviable standards of care and we are committed to ensuring that this continues as we transition to more sustainable ways of working.

Our work is funded by six member governments: Australia, Canada, India, New Zealand, South Africa and the UK.

ORGANISATIONAL OVERVIEW

We are based in the UK and operate on a global basis. We employ over 1250 employees, with our largest centres of operation being in Belgium, France and the UK.



This map pinpoints the countries in which CWGC operates

By way of a broad overview of our operations, we have a significant physical estate (comprised of cemeteries, memorials, buildings and landscape features), much of which is historic and requires significant upkeep and repair.

Our programme of conservation work is informed by a cycle of inspections. The physical construction work deemed necessary (often relating to the maintenance and repair of structures and walls) is either carried out by our own in-house stone masons and skilled works teams or, for larger projects, typically outsourced to professional construction companies.

Day-to-day horticultural services, relating to the maintenance of the landscaped areas within our physical estate, are delivered mainly by our own significant horticultural workforce and also by contractors.



COMMITTING TO CHANGE

We recognise that our operations may have an adverse impact on the environment, and we are committed to:

- Boosting efforts to transition to more sustainable ways of working
- Continually improving and monitoring our environmental performance
- Complying with relevant environmental legislation

Through our detailed Environmental Sustainability Plan, we undertake to:

- Reduce greenhouse gas (GHG) emissions – We have committed to a net-zero GHG emission target by 2050 and will develop an associated decarbonisation pathway.
- Promote carbon sequestration – We will protect and enhance our sites' carbon dioxide absorption potential by enhancing and increasing planting throughout our global estate.
- Adapt to climate change – We will improve the resilience of our sites by incorporating considerations of climate change risks into new projects. We will identify the sites most vulnerable to extreme weather events and changing climatic conditions.
- Actively enhance, and reduce impacts on, biodiversity - We will adopt the concept of biodiversity net gain for larger capital, structural or horticultural projects, whereby we take the opportunity whilst working on a site to improve its biodiversity potential.
- Reduce resource consumption – Our initial focus will be on undertaking energy and water-efficiency audits to identify opportunities for reducing consumption.
- Reduce waste generation – We will develop and implement initiatives that will contribute to designing out wastage and promoting repair, re-use and recycling.
- Encourage engagement – We will raise our employees' knowledge of environmental sustainability issues and will encourage widespread participation in the development and implementation of sustainability initiatives.

To underpin our commitment to the Environmental Sustainability Plan, its key elements are also incorporated as objectives within our corporate business plan for 2022 - 2023, helping to ensure the focus on sustainability is secured across the organisation.



Battery operated Pellenc Hedge Trimmer in use by the French team



A new resident at Harrogate (Stonefall) Cemetery

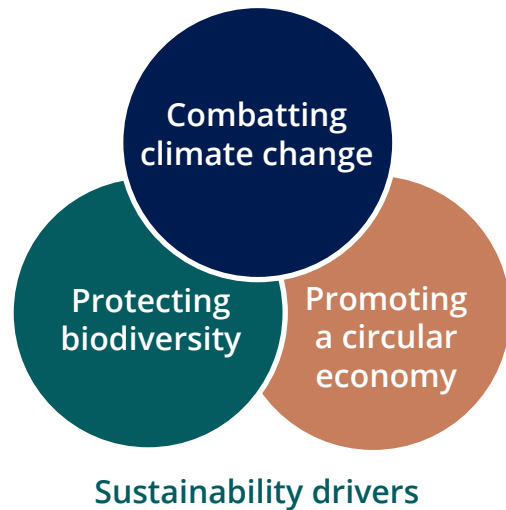


2. SHAPING OUR SUSTAINABILITY AGENDA

OUR SUSTAINABILITY PRINCIPLES

The key environmental concerns of our time are climate change and the widespread loss of biodiversity; both of these emerging global environmental disasters are the result of humanity's over-consumption of natural resources and the resultant discard or release of the wastes generated.

From this, it follows that our key sustainability drivers should encompass 3 principal themes, combatting climate change, protecting biodiversity and promoting a circular economy.



We have broken these 3 overarching sustainability drivers down into 7 high-level sustainability principles that, when followed, will lead to progress on these fronts (see Table 1). These high-level qualitative principles signify and provide a framework for what we have committed to continuously make progress on and together they form a set of guiding principles against which we can map the measures being taken to reduce our environmental impact and transition towards more sustainable working practices.

Sustainability drivers	Sustainability principles
Combatting climate change	Reduce greenhouse gas emissions Promote carbon sequestration Adapt to climate change
Protecting biodiversity	Actively enhance biodiversity Reduce impacts on biodiversity
Promoting a circular economy approach	Reduce resource consumption Reduce waste

Sustainability drivers & principles

MATERIALITY

In selecting the sustainability drivers, principles, targets and actions that will shape the form and pace of our transition, we have focused on issues and measures that we consider are most material (i.e., relevant and important) to us. In determining this, we have considered materiality from the following perspectives:

- **What are the key environmental concerns of our time** – i.e., climate change, the widespread loss of biodiversity and other areas of concern covered by the Sustainable Development Goals (SDGs), as adopted by the United Nations (UN).
- **Which of our activities pose a risk to the environment** - e.g., by contributing to GHG emissions or impacting on biodiversity.
- **Which environmental aspects present a physical risk or cost to us** - e.g., current impacts and future risks from changing climatic conditions and extreme weather events.
- **What environmental and legislative changes could present a risk to our core operations** - e.g., potential water scarcity in certain regions, preparing inadequately for legislative changes, such as the phasing out of new fossil-fuelled cars and small vans in the UK and EU.
- **What activities could affect our reputation** - e.g., not reducing the use of avoidable chemicals.
- **What issues do our stakeholders deem relevant** – e.g., employees have requested improved waste recycling arrangements and the use of more sustainable wreaths.
- **What measures are leading companies and our comparators taking** – e.g., setting net-zero targets, promoting carbon sequestration, enhancing biodiversity.



RISKS

Our activities interact with the environment in a myriad of ways, creating the following three strands of sustainability risks:

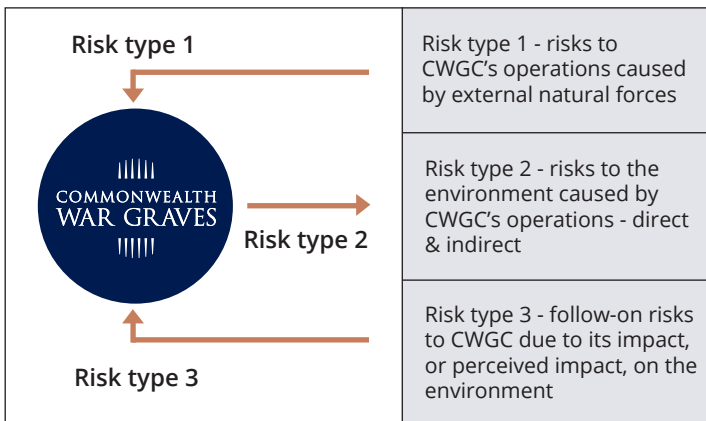
- There are **risks to (and impacts on) our operations** caused by external natural forces (e.g., from extreme weather events made more likely by a changing climate, water scarcity impacting on watering practices, changing rainfall patterns and instances of extreme drought impacting on the planting in our sites). => Risk type 1
- There are **risks to (and impacts on) the environment** caused by our operations, both directly (e.g., emissions of GHGs from the combustion of fossil-fuels, impacts arising from the generation of waste, impacts on biodiversity from the application of chemical products) and indirectly (impacts that arise along our supply chain due to our activities, e.g., stone quarrying, fertiliser manufacturing, production of printed materials). => Risk type 2
- There are **follow-on risks to our organisation** due to our impact, or perceived impact, on the environment - including reputational risk (not being seen to be operating to acceptable sustainability standards), risk from stranded assets, risk of not meeting stakeholder expectations (particularly employee expectations) by not transitioning to more sustainable practices at an acceptable pace, regulatory risk (not complying with or preparing adequately for changes in legislation or industry standards), pollution risk from incidents (e.g., spillages) and supply chain risks. => Risk type 3

These three strands of sustainability risks are clearly interrelated. By minimising the risks/impacts to the environment as caused by our operations (Risk type 2), we will, firstly, be contributing to efforts to tackle global climate change and biodiversity decline and, secondly, be reducing the follow-on risks to which we are exposed (Risk type 3). Over much longer timeframes and larger scales of collective action, these efforts will assist with reducing the risks presented by external forces (Risk type 1).

UN SUSTAINABLE DEVELOPMENT GOALS (SDGS)



The 17 SDGs, adopted by all UN Member States in 2015, constitute an agreed agenda for promoting sustainable development. As part of our transition to more sustainable ways of working, we have aligned our Environmental Sustainability Plan with the relevant SDGs so that our actions contribute to the transformation that is required to protect our planet. For more information on the SDGs, go to: <https://www.un.org/sustainabledevelopment/development-agenda/>



Sustainability risks

3. TRANSITIONING TO MORE SUSTAINABLE WAYS OF WORKING

In this section, we discuss each of our sustainability principles in turn, outlining our objectives, progress achieved so far and what the next steps are.

DRIVER: COMBATTING CLIMATE CHANGE

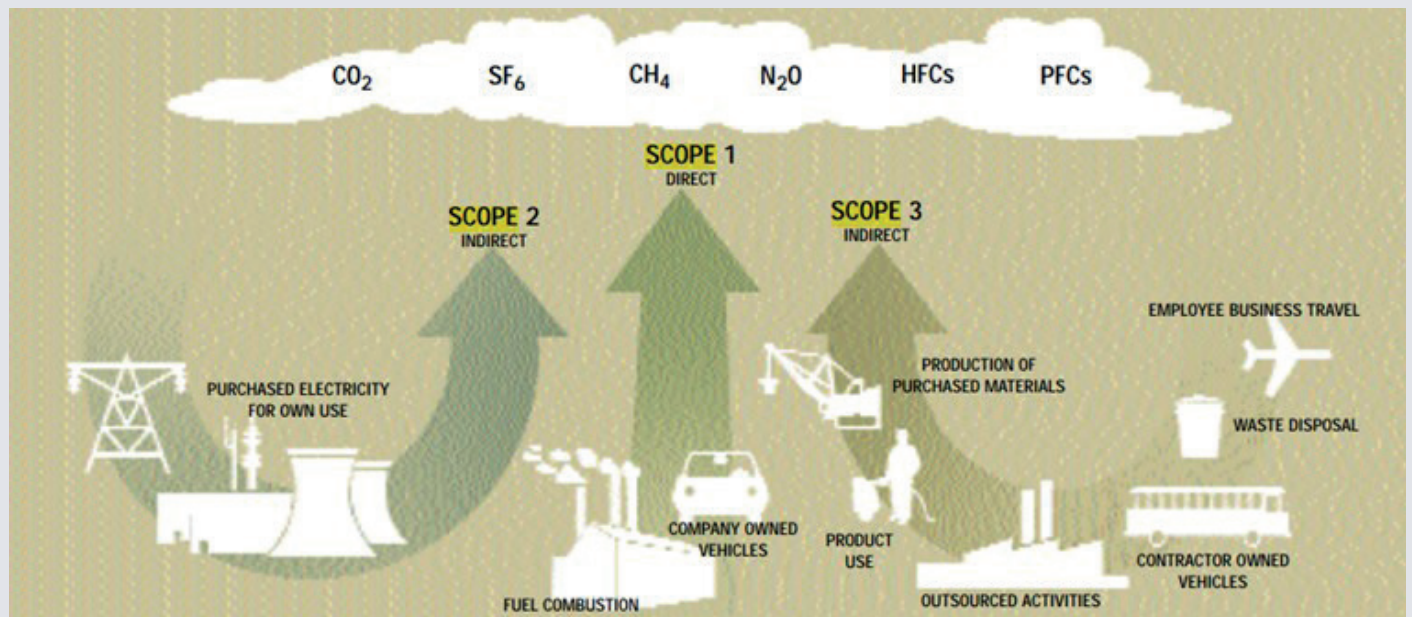
REDUCING GHG EMISSIONS



Explanation of scope 1, 2 & 3 emissions:

In establishing our greenhouse gas emissions, we follow the approach contained within the Greenhouse Gas Protocol, whereby 3 'scopes' are used for accounting and reporting GHG emissions. As defined in this Protocol:

- Scope 1 emissions are direct GHG emissions that 'occur from sources that are owned or controlled by the company'. For CWGC, this would include, for example, emissions from owned or controlled boilers, vehicles and machinery.
- Scope 2 emissions are indirect GHG emissions that arise 'from the generation of purchased electricity consumed by the company'.
- Scope 3 emissions are other indirect GHG emissions that arise as a consequence of our activities, through the impact that we have on our supply chain. These emissions 'occur from sources not owned or controlled' by us. For CWGC, scope 3 emissions would include, for example, those associated with the production of the products and the delivery of the services we make use of.



Overview of scopes and emissions across a value chain (Ref: The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard)



ESTABLISHING EMISSION INVENTORIES & SETTING REDUCTION TARGETS

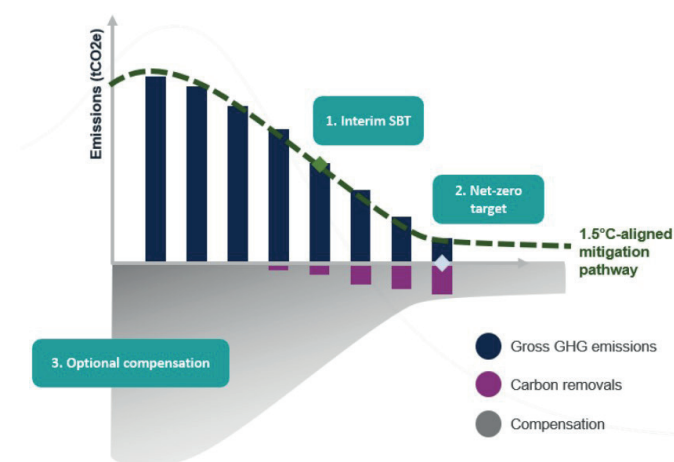
Objective - By 2025, we aim to have established systems in place for calculating annual GHG emissions associated with our direct activities and those of our wider value chain. A near-term emission reduction target (for Scope 1 and 2 emissions and for selected categories of Scope 3 emissions) will have been set and a decarbonisation pathway will have been developed to help us achieve this target.

Progress to date:

1. We have committed to a net-zero GHG emission target by 2050 and are committed to reducing our GHG emissions in line with climate science, as part of the global effort to prevent the most dangerous consequences of climate change by limiting global warming to 1.5°C.
2. We have developed a new Sustainability Reporting system to collate the data necessary to calculate our baseline GHG emissions (for Scope 1 and 2 emissions and for selected categories of Scope 3 emissions).
3. We have revised our internal expenses system to enable us to capture the data required to calculate GHG emissions associated with certain categories of expenses (e.g., machinery and vehicle fuel purchases).

What's next? In FY 2022/23, we will:

1. Implement the new Sustainability Reporting system across our global operations.



Graphical representation of a net-zero target & an interim science-based target (SBT)

Ref: Science Based Targets initiative, (SBTi), Net-Zero Criteria Draft for Public Consultation, January 2021.

DECARBONISING OUR OPERATIONS

Objective - By 2025, we aim to source at least 25% of purchased electricity from renewable electricity supplies and will have generated a timetable for transitioning to 100% renewable electricity by 2031 (where available by country). Through using electric vehicle (EV) pool cars and trialling small electric vans, we will have built-up experience and knowledge to help inform the 2024/25 feasibility study relating to our future wider transition to EVs and other ultra-low emission vehicles. By 2025, our transition towards the use of electrically powered machinery will be progressing steadily and the findings from the energy-efficiency audits undertaken at base sites and offices will be feeding into the programme of energy-saving measures being undertaken.

Progress to date:

1. We are introducing a new asset management system that enables us to generate annual statistics on the percentage of operational machinery in use that is electrically powered.
2. As well as encouraging the use of electrically powered machinery across the Commission, we are engaging with selected machinery suppliers to promote the further development of electrically powered machinery.

What's next? In FY 2022/23, we will:

1. Consider options for transitioning to renewable electricity supplies when energy contracts come up for renewal.
2. Introduce an EV pool car in 2 of our operating areas and at Head Office, together with the installation of appropriate charging points on-site.
3. Commence a programme of energy-efficiency audits across offices and base sites.
4. Set out a programme for converting all lighting to LED by FY 2023/2024.



Trialling a new battery edge trimmer machine (2022)

We continue to work with Allet Mowers on the development of prototype machinery. This battery edge trimmer machine has been designed based on the historic petrol-powered edger previously used in the Commission. This prototype performed well in trials at Cannock Chase (UK) in May 2022.

PROMOTING CARBON SEQUESTRATION

Objective: By 2025, we will know how many specimen trees there are on our estate following the completion of the 3-year cycle of our new tree risk management process. We will also have started to collate data on tree groups and woodland areas. In addition to taking all reasonable measures to protect our existing trees, we will have reviewed 150 sites to identify where missing trees can be replaced or additional trees can be planted.

Progress to date:

1. We have now formally integrated sustainability considerations into the design and delivery of projects that either come within the remit of our PMO system or our conservation review process. These sustainability considerations include assessing and minimising impacts on trees, avoiding the removal of trees wherever possible, and replacing any trees that do need to be removed (such as for safety reasons).
2. As part of the Queen's Green Canopy initiative, created to mark the late Queen's Platinum Jubilee in 2022, we planted 137 trees across the UK. Sites selected were Cardiff Western Cemetery in Wales, Lyness War Cemetery in Scotland, Shankill Graveyard in Northern Ireland and Brookwood Military Cemetery and Runnymede Memorial in England.

What's next? In FY 2022/23, we will:

1. Review approximately 50 sites to identify where missing trees can be replaced (based on historical layouts) or where additional trees can be planted (without impacting on the heritage value of our sites).

2. Start to develop a tree planting programme.
3. Introduce the new tree risk management process, which includes the requirement to record the number of specimen trees on each site.

ADAPTING TO CLIMATE CHANGE

Objective: By 2025, we will better understand the current and future potential impacts of climate change on our sites. The requirement for project design to consider risks presented by changing climatic conditions will be embedded within the organisation. By 2025, we will have collated 5 years of data on extreme weather events impacting on our sites and we will have systems in place for logging observed changes in weather patterns. We will have identified which sites are vulnerable to flooding and we will be working to address this risk.

Progress to date:

1. We have continued to record extreme weather events impacting on our sites (e.g., repeat flooding events, tree lightning strikes, unusual drought conditions).
2. We have introduced a system for centrally recording less extreme but changing climatic conditions to improve our understanding of current and future climate change impacts and risks.

What's next? In FY 2022/23, we will:

1. Require the design of new horticultural and structural projects to take into consideration the risks presented by changing climatic conditions.



Tree planting as part of the Queen's Green Canopy initiative



Flooding at Rangoon War Cemetery, Myanmar (2022)



Impact of record rainfall at King Tom Cemetery, Sierra Leone (2015)



Storm damage at Digboi War Cemetery (2022)

DRIVER: PROTECTING BIODIVERSITY

ACTIVELY ENHANCING BIODIVERSITY

Objective: By 2025, we will have gained valuable experience on how best to enhance biodiversity on our sites; both through a well-embedded concept of biodiversity net gain for projects (whereby we take the opportunity whilst undertaking projects on sites to improve their biodiversity potential) and through the implementation of further biodiversity-enhancing measures at over 100 sites. By 2025, working to improve biodiversity will be an accepted part of our responsibilities.

Progress to date:

1. We have now formally integrated sustainability considerations into the design and delivery of projects that either come within the remit of our PMO system or our conservation review process. These sustainability considerations include introducing additional biodiversity elements onto site that will support or encourage selected species or wildlife in general (e.g., nesting boxes, wildflower areas, habitat structures).

What's next? In FY 2022/23, we will:

1. Develop the concept of biodiversity net gain for projects.
2. Generate guidance and criteria for the active enhancement of biodiversity on our estate. As part of this, we will encourage species that would be beneficial to support as part of an Integrated Pest and Weed Management approach (e.g., species that are predators of unwanted pests).
3. Encourage volunteers and employees to record their biodiversity observations, using

a selected App. This will help us to select the most appropriate biodiversity enhancements and to monitor the spread of invasive plants and pests.

REDUCING IMPACTS ON BIODIVERSITY

Objective: By 2025, our usage of pesticides, herbicides and biocides will have been effectively reduced to minimal levels, as driven by a move to more Integrated Pest and Weed Management approaches and legislative changes across Europe.

Progress to date:

1. We have revised our horticultural operating manual to emphasise more clearly the need to transition to an Integrated Pest and Weed Management approach across the organisation.
2. We achieved a significant reduction in the use of herbicides, pesticides and biocides, against a 2019 baseline.
3. We refined the use of an enzyme-based, headstone cleaning product in Belgium and the Netherlands, and commenced the use of this product in Wales and the west of England.

What's next? In FY 2022/23, we will:

1. Continue to set annual targets for progressively reducing our usage of herbicides, pesticides and biocides.
2. Expand the use of an enzyme-based, headstone cleaning product to additional regions, to support the continued phase-out of biocides.



Creating a dead wood habitat at Brookwood Military Cemetery



DRIVER: PROMOTING A CIRCULAR ECONOMY

REDUCING RESOURCE CONSUMPTION

Objective: By 2025, we will be working to adhere to water-efficiency targets tailored to each irrigation system. In addition to annually monitoring water consumption, we will be 2 years in to our 5-year programme of water-efficiency audits for base sites that will have informed measures to save on water consumption. In addition to water, we will be reporting on the consumption of other key resources and will be engaging with our supply chain to promote improvements aligned with the principles of a circular economy. We will have derived and introduced procurement criteria for products and services that are aligned with our sustainability principles.

Progress to date:

1. We have been rolling-out a smart, software system that will enable us to better optimise and track the water consumed by our irrigation systems.
2. Our new Sustainability Reporting system will enable us to collate water consumption data from across our global estate from FY 2022/23.
3. We have developed and introduced a new biodegradable willow wreath. This design, aligned with the principles of a circular economy, demonstrates the kind of innovation in

sustainability we are striving for across the organisation.

In FY 2022/23, we will:

1. Monitor, record and report centrally on water consumption from irrigation systems, buildings and other uses.
2. Ensure that all water sources and irrigation systems are metered, wherever possible.
3. Undertake a review of the key resources we consume from a sustainability perspective, to derive a priority list for further attention.

REDUCING WASTE GENERATION

Objective: By 2025, effective engagement with key suppliers and partners will have yielded reductions in waste generation at our sites via initiatives that design out wastage and promote repair, re-use and recycling. We will have set and be working towards progressively tighter targets for reducing waste quantities going to landfill. Internal collaboration between regions will enable best practice examples of a circular economy approach to be more widely adopted.

Progress to date:

1. Our new Sustainability Reporting system will enable us to collate data on waste quantities from across our global estate from FY 2022/23.



CWGC's new biodegradable wreath

Our new wreath is carefully and respectfully handmade from fresh woven willow that grow on the former battlefields in Belgium. Willow was often used during the First World War to strengthen the walls of the trenches.

The wreath is re-usable. When it eventually starts fading, it will be taken to our compost farm at Bedford House Cemetery (Belgium), where it will be composted for later use in our cemeteries.

In FY 2022/23, we will:

1. Record and report centrally on waste generation.
2. Optimise arrangements for
3. the segregation, re-use and recycling of waste at all office and base sites



Creating compost from green waste at Bedford House Cemetery, Belgium

4. MANAGING OUR SUSTAINABILITY TRANSITION

GOVERNANCE

The success of our sustainability transition, as driven by our Environmental Sustainability Plan, will be measured (in part) by our ability to meet the relevant short, medium and long-term actions and targets we have set ourselves. As we continue to monitor the efficacy of our Environmental Sustainability Plan, we will make any adjustments that are needed to secure the delivery of the stated objectives (as outlined in the previous section).

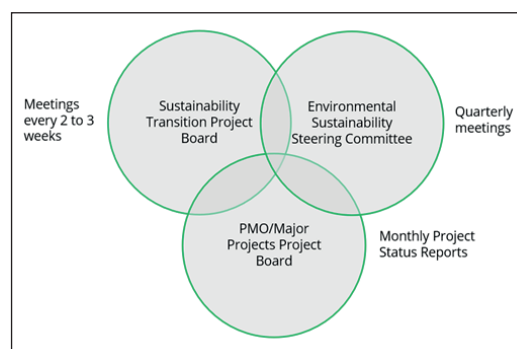
The success of our sustainability transition will depend on the ongoing efforts of many across our organisation. To help ensure the focus on sustainability is secured across the various geographical areas and work functions, key elements of the Environmental Sustainability Plan are also incorporated as objectives within our corporate business plan for 2022/23.

There are 3 central components to the governance of our sustainability transition:

1. Sustainability Transition Project Board – This Project Board (comprised of the Head of Environmental Sustainability, the Director of Operations, the Director of Estates and the Director of Horticulture) meets every 2 to 3 weeks. It provides oversight of the implementation of the Environmental Sustainability Plan and associated sustainability measures, such

as the setting up of Green Teams. The Project Board's main function is to identify and act to resolve any difficulties or constraints identified, thereby helping to drive the pace at which progress is achieved. Given the members of the Project Board, it also serves as an effective way of feeding in sustainability-related questions, viewpoints and requests from across the organisation.

are submitted and monthly project status reports are reviewed by the Major Projects Project Board, which includes the Director General of CWGC and other members of the Executive Leadership Team. As part of the project management process, risks of non-delivery of specific components of the Plan are highlighted, addressed and tracked.



Overview of the governance arrangements relating to our sustainability transition

2. PMO/Major Projects Project Board – Given the strategic significance of the sustainability agenda for CWGC, the implementation of the Environmental Sustainability Plan is designated as a Major Project under the organisation's project management system (i.e., the PMO). The management of this programme of work is undertaken by the Head of Environmental Sustainability, with the Director of Horticulture serving as Project Sponsor. In terms of governance, weekly updates

3. Environmental Sustainability Steering Committee – As mentioned, the Environmental Sustainability Plan applies to all geographical areas and work functions and this Committee serves to reflect that through its diverse membership. The Committee meets on a quarterly basis and is comprised of 17 members drawn from each of the 5 geographical areas and a range of key HO teams. The Committee is kept up to date with the implementation of the Plan and provides another form of oversight for our sustainability transition. The Committee facilitates the on-going feedback from across CWGC on how things are progressing and whether there are any issues that need resolving. The Committee also provides a forum for highlighting examples of change and innovation taking place across the geographical areas and work functions.

EMPLOYEE ENGAGEMENT

To complement the implementation of our Environmental Sustainability Plan, we have set up Green Teams for each of our 5 geographical areas and HO. The purpose of each Green Team is to elicit and review ideas from employees on how we can work more sustainably, and to then develop and implement selected ideas. By harnessing local knowledge, the aim is to generate initiatives that are tailored to the context of different sites and regions, and which reflect what is a priority for these localities.

A Green Fund has been set up which ring-fences money to assist,

primarily, with the development and implementation of sustainability initiatives put forward by the Green Teams.

REPORTING AND FUTURE SCOPE OF OUR SUSTAINABILITY AGENDA

This report constitutes the first in what is envisaged as being a series of annual reports, providing regular progress updates on our sustainability transition. In this first report, the reporting has been qualitative. As we implement the new Sustainability Reporting system across our global operations in FY 2022/23, we will

be collating quantitative data that will be incorporated into future annual reports.

We expect that our sustainability agenda will evolve and broaden in the medium term as we progress and become more knowledgeable about the environmental impacts of our organisation and the opportunities there are for positive change. This does not just relate to our own direct operations, but also to those of our wider value chain. So, as we ourselves make progress, we will have a stronger foundation from which to engage with our supply chain to deliver broader sustainability improvements.



**MORE
INFORMATION**

**ENVIRONMENTAL
SUSTAINABILITY REPORT**
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