Task Force on Climate-Related Financial Disclosures (TCFD)

"The Financial Stability Board established the TCFD to develop recommendations for more effective climate-related disclosures that could promote more informed investment, credit, and insurance underwriting decisions and, in turn, enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector."[29]

The disclosures will become mandatory for Biffa in our FY22 Annual Report.

Aligning our reporting to the TCFD recommendations informs our investors and other key stakeholders of the climate-related issues that may impact Biffa. Using this format enables us to explain our process for responding to these challenges in a purposeful and comparable context.

Biffa's climate change response

Governance How climate-related risks and opportunities are managed	The Board has overall accountability for the management of all risks and opportunities, including climate change. We have processes in place to ensure our employees and other stakeholders are aware of our focus in this area.
Strategy Climate related risks and opportunities	Climate change is a global emergency and we recognise that the waste sector is a key player in enabling the UK's transition to a zero emissions future. As a leading business in our sector, we are well placed to support our customers with their own sustainability journeys which in turn support our own journey to net zero. We will also further accelerate the reduction of our emissions by anticipating and taking advantage of opportunities presented by emerging technology and process innovations.
Risk management Biffa's process for assessing and managing climate-related risks	We continue to incorporate climate change issues into our robust risk management and planning processes. When assessing climate-related risks we consider both our existing business model and long-term strategy.
Metrics and targets Metrics used to assess our efforts	Our aim is to cut our Scope 1 and Scope 2 emissions by a further 50% by 2030 and to reach net zero emissions across our direct operations (Scope 1 and 2 emissions) by no later than 2050, in line with UK Government targets.

Governance: How climate-related risks and opportunities are managed

The Board provides oversight of our strategic commitments, which dovetail with our sustainability strategy and ensures climate-related risk management and opportunities are integral to our business strategy including capital expenditure, acquisitions and performance objectives. This is demonstrated through our four areas of capital allocation (page 6) and our recent acquisition of CSG which has a focus on allowing us to unlock circular economy innovation and expand our capability to support customers waste reduction and recycling targets.

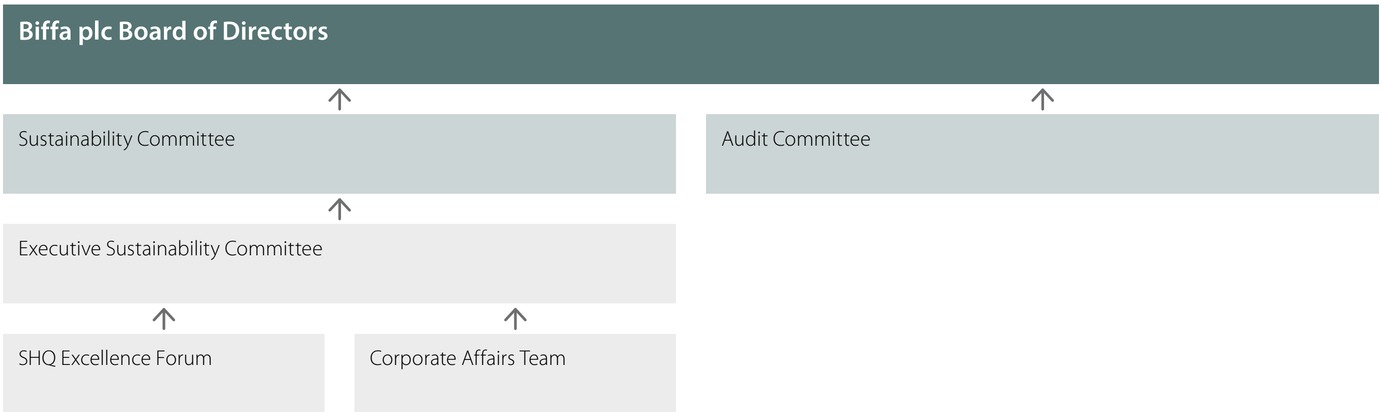
During the past year, the Board, its Committees and the Group Executive Team oversaw senior management who are responsible for the day-to-day implementation, monitoring and management of our performance relating to the environment, including climate-related risks and opportunities.

The Board Sustainability Committee which met for the first time in January 2021, oversees, on behalf of the Board, the Company's sustainability strategy and includes a core focus on tackling climate change. Below Board level, Executive Sustainability Committee also met for the first time in January 2021, and is responsible for overseeing the Company's sustainability strategy at a business level.

The Board Sustainability Committee and Executive Sustainability Committee plan to meet three times a year (page 12).

As part of the overall risk management process, we have a dedicated sustainability team, reporting into the Corporate Affairs Director, which updates the CEO, Group Executive Team and Sustainability Committees on issues relating to climate change on a quarterly basis, with a detailed update on progress against sustainability strategy targets on a six monthly basis.

29 About | Task Force on Climate-related Financial Disclosures (www.fsb-tcfd.org).



In May 2021, we set up our sustainability dashboard to track performance against the targets set out in our sustainability strategy. The dashboard allows the Group Executive Team to monitor progress between quarterly updates and allows greater transparency and visibility of performance data amongst management teams.

Our Corporate Affairs team, which includes the sustainability team, works closely with management teams and employees across the business, to ensure that any new sustainability risks and opportunities are identified and reported to the Corporate Affairs Director and Group Executive Team. The Corporate Affairs Team drives awareness of our targets and commitments across the business and where relevant, sustainability targets are incorporated into our divisional Balanced Business Plans. The Corporate Affairs Team, along with other subject matter experts, participate in industry working groups and monitor best practice. The sustainability team also ensures that performance monitoring and reporting is completed and rigorously audited, through both internal audit and external verification to ensure that accurate information is communicated across the business.

In addition, our Audit Committee reviews financial and non-financial risks outlined in the Group Risk Register, which includes climate change.

Strategy: Climate-related risks and opportunities

Biffa's strong position as an enabler of the UK circular economy is helping to guide changes to Government policy towards progressive long-term benefits for the environment, the economy and the communities we serve.

The four areas of our sustainable business model reflect the outcomes and value creation delivered by our operational capabilities and our capital allocation:

- **Reduce**: redistribution of surplus produce.
- **Recycle**: food grade closed loop plastic recycling.
- **Recover**: energy recovery from waste which cannot be recycled.
- **Collect**: efficient and low carbon waste and recycling operation.

2020 was a challenging year for society and many businesses, but we have delivered a resilient performance and continued to grow. The Group is increasingly well placed for a strong post pandemic future with established leadership across waste reduction, surplus produce redistribution, recycling, collections and energy recovery. Significant growth opportunities lie ahead, and we will continue to invest to build a resilient, sustainable business.

As the UK's leading sustainable waste management company our business strategy is to make sure we contribute fully to enabling the UK circular economy while taking actions to address climate-related risks and identify opportunities to deliver improved environmental and social benefits. This guides the services we offer, our operations, our supply chain management and our investment in research and development.

To further align our funding strategy with our sustainability strategy and the climate-related risks and opportunities identified, we have established a Sustainability-Linked Finance Framework which will be published in early FY22.

Our sustainability strategy, Resourceful, Responsible, was published in March 2020 and identifies 20 clearly defined targets which mitigate against climate-related risks and capitalise on climate-related opportunities. The strategy, including climate-related risks and opportunities, will be reviewed annually and will take on board changes in regulations, societal demand, technology availability and the development of climate science. Where required the strategy will be adapted.

Our ambition is to reach net zero across our direct operations (Scope 1 and 2 emissions) by 2050 and this year we have released our net zero roadmap to 2050 (see pages 54 – 55). As part of this journey, we signed up to the Science Based Target initiative in March 2021 and our Scope 1 and 2 targets will be submitted for validation over the next 18 months. We will also be setting Scope 3 (value chain) emissions targets within the same timeframe. Our full emissions data is included in on page 79.

Scenario analysis

Undertaking scenario analysis and stress testing is critical to ensure our long-term business strategy remains resilient to a range of potential future outcomes in 2030 and beyond. To determine the resiliency of our existing business model and sustainability strategy to 2030, we have evaluated it against two extreme scenarios:

- **The 'sustainable' scenario –** enables us to assess the risks and opportunities arising from a successful transition to a low carbon world, aligned with the Paris Agreement. To prevent the worst effects of climate change, the average global temperature increase must be limited to no more than 2°C above pre-industrial levels by the year 2100.
- **The 'business as usual' scenario –** enables us to assess the risks where the Paris Agreement is not met and we must face the acute risk of severe weather events and chronic impacts of temperature and precipitation changes. This scenario allows for global average temperatures rising to above 4°C by the end of the century.

Both scenarios considered were informed by the International Panel on Climate Change (IPCC) and the Representative Concentration Pathways. Data from the UK Met Office was used in the 'business as usual' scenario to allow us to consider the UK physical impacts of climate change, as these are most applicable to our business which is based solely in the UK.

Climate scenarios:

	Sustainable scenario	Business as usual scenario
Global average temperature change by 2100	No more than 2°C	4°C
IPCC data set	IPCC RCP 2.6	IPCC RCP 8.5
Level of GHG mitigation	Strong mitigation through coordinated policy and regulation towards decarbonisation goals.	Current and proposed regulation only.
Physical climate change data set	Not assessed due to focus on transition risks and opportunities under this scenario.	UKCP18 Probabilistic models for climate change provided by UK Met Office based on IPCC RCP 8.5
Assumptions	■ Consumption orientated towards low carbon products ■ Rapid technology development	■ Exploitation of fossil fuel resources at a similar level to today

This assessment reviewed the climate-related risks and opportunities for our organisation with a focus on the UK waste industry. The assessment was completed through climate-related workshops across the business divisions and central functions. Our materiality assessment (see page 8) which covered our priority stakeholder groups, including external stakeholders, was used to ensure that no material risks or opportunities were overlooked.

We assessed the financial impacts of the climate-related risks and opportunities identified using the criteria in our risk management system. We considered both the inherent risk, before any mitigating actions, and the residual risk, after considering the mitigating actions and controls.

The risks and opportunities identified

The key transition risks to our business under the 'sustainable' scenario are due to policy and legislation changes, technology requirements and market and societal shifts. Our existing business model and sustainability strategy to 2030 addresses the risks identified. Whilst there are waste and resource specific elements to these risks, those that relate to transport and emissions impact all sectors that use transport and its associated emissions.

Our current business strategy and sustainability strategy to 2030 allow us to realise a significant number of opportunities that arise from a shift to a low carbon economy. These opportunities include changes in resource efficiency, societal shifts resulting in increased demand for recycling services and low carbon materials. These opportunities are enhanced by England's Resources and Waste Strategy, which supports the circular economy and green consumerism (see page 42 for further information).

We have considered the physical risks we face under a 'business as usual' scenario and consider there to be low to medium residual risk to our workforce, operations and facilities should this scenario eventuate. We recognise that due to the amount of carbon already in the atmosphere, that some increase in extreme weather events and long-term changes in temperature and rainfall patterns will impact our business even if the 'sustainable' scenario occurs. It is anticipated that these impacts will be of a lesser magnitude compared to the 'business as usual' scenario and would have a low impact on our workforce, operations and facilities.

To ensure that we remain resilient to any extreme weather our business continuity planning covers business disruption from extreme weather events and is informed by both past and simulated events. Business critical operations that are at a higher risk can be assessed for adaptation if required.

Scenario analysis detail: Transition risk under a sustainable scenario (2°C)

Timeframe	**Short**	1 to 3 years	**Financial impact of risks**	**Low**	Managed as part of existing processes
	Medium	3 to 10 years		**Medium**	Additional mitigation or investment required
	Long	10+ years		**High**	Significant investment required and considered material risk to the business

		Financial impacts			
		Description	Residual financial impact of risk	Timescale	Biffa's mitigating actions
Policy and legal	Emissions legislation	Increased pricing of greenhouse gas emissions	Low	Short/ Medium/ Long	We have committed to science-based carbon reductions of 50% by 2030 and have outlined our road map to net zero by no later than 2050. Our sustainability strategy, Resourceful, Responsible, outlines our actions to ensure this carbon reduction is achieved, including: ▪ the introduction of a fully electric fleet by 2040 and the cessation of buying fossil-fuelled collection vehicles by 2030. ▪ increasing collection route efficiency by 20%. ▪ purchasing renewable electricity. Our target on alternative-fuelled vehicles takes into account the life expectancy of our existing fleet and allows vehicles to be replaced with non fossil-fuelled alternatives when they have come to the end of their life expectancy. The collection route efficiency focuses on using our assets more efficiently and utilising existing routing software further.
	Renewable energy legislation	Impact on revenue due to change in initiatives available	Low	Medium	The reduction in revenue from the renewable obligation schemes for landfill gas is known and has been built into our five year business plans. We are mitigating this through new strategic projects including our investment into two EfW facilities which will partially replace the existing landfill gas net income. We are exploring the use of biogas in areas other than power generation, which could have a higher financial and sustainability value to the Group than current operations. We are also exploring other sources of renewable energy, including solar and hydrogen that will allow us to utilise our large land holding and grid infrastructure.
	Waste legislation	Impact on revenue and operating costs due to change in service demand and materials.	Low	Short/ Medium	We continue to engage productively and transparently with regulators and policy makers to ensure that we have foresight of legislation. This insight ensures that we can develop solutions to changing waste inputs, output type and quality demands. Short term impacts come from the EPR and DRS schemes with the impacts of these having been modelled on the current business model. This material still requires to be processed and recycled into new product. A shift in market trends to a greater demand for recycled material as a result of these legislation changes presents an opportunity for Biffa and aligns with our current business model and the targets outlined in our sustainability strategy.
	Planning legislation	Increase in capital costs to meet new requirements.	Low	Short	We continue to engage productively and transparently with regulators including planning authorities and incorporate flooding and climate change actions into project budgets.

Scenario analysis detail: Transition risk under a sustainable scenario (2°C)

Timeframe	**Short**	1 to 3 years	**Financial impact of risks**	**Low**	Managed as part of existing processes
	Medium	3 to 10 years		**Medium**	Additional mitigation or investment required
	Long	10+ years		**High**	Significant investment required and considered material risk to the business

		Financial impacts			
		Description	Residual financial impact of risk	Timescale	Biffa's mitigating actions
Technology	Lower emission technology	Cost to transition to low carbon technology	Low	Short/ Medium	As part of our sustainability strategy we have targeted to introduce 10% non-fossil fuelled collection vehicles by 2025, subject to market availability and capability and will cease buying fossil-fuel collection vehicles by 2030. We procure renewable energy for our operations and therefore this cost to sourcing low-carbon energy is already budgeted and planned for. We collaborate with suppliers to seek technology advances enabling efficiency gains in the use of resources and operational processes. We have committed to the Science Based Target initiative (SBTi) and as part of this will be setting a Scope 3, value chain, emissions target. Our desire to reduce our value chain emissions will encourage our suppliers to also set ambitious carbon reduction targets.
Market	Change in demand for services	Change in customer behaviour	Low	Short/ Medium/ Long	We offer sustainable waste solutions and the shift in market trends reflects increasing customer awareness of sustainability issues which offers further opportunity for Biffa. We already offer a range of innovative solutions, including two of the most technically advanced plastic recycling facilities in the world, aggregate recycling, food waste recycling at our anaerobic digestion facilities and soil treatment. While we invest in innovative solutions we also continue to maintain our current assets so they can continue to be utilised and reach their life expectancy. As the leader in UK sustainable waste management, we continue to drive growth in our recycling services and to unlock circular economy innovation. Our recent acquisition of Company Shop Group, which aims to prevent waste by identifying surplus produce and then collecting, processing, and redistributing it for sale through its unique network of membership-based outlets, demonstrate our commitment to maintain our position in the market and the ability to match changes in demand for services.

Tackling Climate Change continued

Scenario analysis detail: Opportunities under a sustainable scenario (2°C)

Timeframe	**Short**	1 to 3 years	**Financial impact of opportunities**	**Low**	Uplift to current business performance
	Medium	3 to 10 years		**Medium**	Material market position or efficiency impact
	Long	10+ years		**High**	Transformational market growth or cost avoidance opportunity

		Financial impacts			
		Description	Financial impact of opportunity	Timescale	Biffa's mitigating actions
Resource efficiency	More efficient technology	Reduced exposure to carbon emission pricing and low emission zones. Reduced and avoided operating costs for facilities and collections fleet.	Medium	Short/ Medium	Our ambitious carbon reduction target and commitment to the SBTi requires a focus on energy efficiency at our locations and across our collections fleet. We have outlined several targets within our sustainability strategy, 'Resourceful, Responsible', that will allow us to achieve greater resource efficiency, such as our target to improve collection route efficiency 20% by 2030 and to introduce electric collection vehicles into our fleet. Our fleet transition takes into account the life expectancy of the existing fleet and our target to improve collection routes utilises efficiencies gained from M&A and routing software.
Products/ services	Lower CO_2 services	Increased revenue due to the continued development of reduced carbon services.	Low	Short/ Medium/ Long	Our sustainable ambitions will be delivered by optimising our processes and continuing to reduce the carbon footprint of the services and solutions that we provide. Our commitment to science-based carbon reductions of 50% by 2030 and outlining our road map to net zero by 2050 underlines our commitment to providing low carbon services.
	Additional technology	Increased revenue from continued development of services through R&D and innovation.	High	Short/ Medium	We have an ambition to unlock £1.25bn of investment in green economy infrastructure by 2030, which includes investments in plastics recycling and EfW infrastructure.
Markets	Change in demand for low carbon services and low carbon materials	Increased revenue through access to growing markets.	Medium	Short/ Medium/ Long	We continue to support our customers to move waste further up the waste hierarchy in support of a circular economy. Key investments in recycling and developing collaborative relationships are crucial to this and will ensure we are able to capitalise on the demand for low carbon materials. We are already delivering on this commitment and since 2019 we have doubled our plastics recycling capability. Our investment into EfW facilities and the recent acquisition of Company Shop Group bolsters our capabilities and the services we offer our customers, helping them to further reduce their own carbon emissions. Our commitment to improving collection route efficiency and a move to non fossil-fuelled vehicles, as detailed in our sustainability strategy, will allow further progress on delivering low carbon services as well as reducing our own emissions footprint.
	Change in season for service requirements	Increased revenue through access to shifting market demand.	Medium	Short/ Medium	Our strategy focuses on growing our market share and developing services and infrastructure either through organic growth or M&A. We continue to monitor the changing markets, including those which may be influenced by physical climate change.
Resilience	Collaborative relationships	Increased market value and revenue due to reputational benefits.	Low	Short/ Medium	We have a strategic focus on developing services and infrastructure, and this helps to meet the sustainability ambitions of our customers. Within our sustainability strategy we outline our target to provide all waste service customers with sustainable waste management advisory services, including waste reduction and re-use options by 2030, showing our commitment to share our knowledge and experiences with customers in a collaborative way.
	Mergers and acquisitions	Reduced operating costs due to increased efficiency of operations and increase in revenue due to expanding capabilities and providing new solutions.	Medium	Short/ Medium	Our programme of M&A has already helped improve collection route efficiencies and route densities. Our recent acquisition of Company Shop Group has enabled us to expand our capabilities into managing surplus products in a sustainable way for our customers. Continuing to develop our capabilities through M&A will enable us to continue to gain operating efficiencies and new capabilities, helping us to achieve our ambitious sustainability targets.

Scenario analysis detail: Physical risk under a business as usual scenario (4°C)

Timeframe	**Short**	1 to 3 years	**Financial impact of risks**	**Low**	Managed as part of existing processes
	Medium	3 to 10 years		**Medium**	Additional mitigation or investment required
	Long	10+ years		**High**	Significant investment required and considered material risk to the business

		Financial impacts			
		Description	Residual financial impact of risk	Timescale	Biffa's mitigating actions
Acute physical impacts (increase in severity of extreme weather) and chronic physical impacts (long-term climate shifts)	Impact on workforce	Increased indirect costs due to impacts on health and wellbeing. Increase in operational costs for heating and cooling due to shifting temperatures.	Low	Short/ Medium/ Long	A high emissions scenario could result in the requirement of additional personal protective equipment and a change in work patterns during periods of extreme weather to reduce any impact on employee health and wellbeing. Increased training to ensure that employees are trained for appropriate conditions would also be implemented. Whilst the frequency and extent of extreme weather is hard to predict, we continue to monitor changing weather patterns on a short-term basis and take action to mitigate any negative effects. We continue to reduce our energy consumption at our locations and purchase renewable electricity, providing a greater resiliency for the future should energy demand increase through the need for increased heating and cooling at our locations.
	Impact on environmental compliance	Increased capital to costs for resiliency measures.	Low	Medium/ Long	More frequent and extreme weather events and long-term climatic shifts have the potential to alter the management requirements to continue to meet environmental compliance. Extreme weather events and long-term climate change are considered through our risk management portal and aftercare funds are already built into financial planning.
	Operational disruption	Reduced revenue from business disruption.	Low	Medium/ Long	A high emissions scenario is expected to increase the frequency and severity of extreme weather events. Our business continuity planning covers business disruption, including from extreme weather events and is informed by both past and simulated events. Business critical operations that are at a higher risk of severe weather events are assessed for adaptation if required.
	Damage to property/site infrastructure	Increased costs due to physical damage. Increased insurance premiums and reduced insurance availability for 'high risk' areas.	Medium	Medium/ Long	Understanding the exposure of our locations to the risk from extreme weather events, including flooding, allows us to identify business critical locations which can then be assessed for adaption investment. New facilities have climate change and flooding incorporated into their planning phases.