

APEM Group





Environmental considerations have always been at APEM's core, from our inception in 1987 to becoming a global environmental consultancy group today. As well as addressing the climate emergency, we are front and centre when it comes to dealing with the biodiversity crisis. Much of the work we do is pivotal to understanding society's impacts on species and habitats.

In 2021, we made the commitment to report annually on our Environmental, Social and Governance (ESG) progress, reflecting our dedication to growing our business sustainably. After scoring 'ESG Excellent' in 2021, this report sets out our 2022 achievements and 2023 ambitions.

Our ESG approach supports national and international sustainability agendas including the United Nation's 2030 Agenda for Sustainability Development and the UK's Climate Change Act (2008). All of the APEM Group's emissions data have been calculated in line with the Greenhouse Gas Protocol - the world's most widely used standard for accounting greenhouse gases.

- across the Group
- We collated our Scope 1, 2 and 3 carbon emissions across the APEM Group. We have had this data verified by a third party consultancy, and required emissions have been offset to achieve carbon neutral status
- We appointed a Sustainability and Communities Lead, responsible for identifying outreach projects, funding and providing community engagement and training opportunities on environmental issues

APEM Group APEM Group ESG Impact Report 2022

2022 in focus

I am delighted to welcome you to the APEM Group's 2022 ESG Impact Report. 2022 was a busy year, with AQUAFACT and GoBe, two exceptional environmental consultancies, joining APEM Ltd, APEM Inc and Woodrow under the Group umbrella. As we continue to align and unify, we have worked collectively to integrate, promote and develop strategies with ESG at the forefront of our thinking.

We continue to work hard to meet the needs of our diverse stakeholders. For our clients, whom we support with environmental projects and minimising the impact on the planet, to our staff who are passionate about preserving and improving the world around them and who are eager to see how we are delivering on ESG as a business.

We are supported by our shareholders, WestBridge, and they share our vision for growth and commitment to our sustainability programme for the future. The scope of our responsibility is extended towards our suppliers and out to the communities we engage with, looking to work together to understand social and environmental challenges, especially regarding climate change.

With climate change an ever-present risk, we have extended our carbon emissions calculation to include that of the whole of the APEM Group in 2022. For the next stage in this process, we are eager to build on our understanding of Group emissions. Supported by our growing data collection efforts, we want to set a target date to reach Net Zero.

To further support this, we also feel it is important to be a Carbon Neutral Business, with our residual emissions continuing to be offset in addition to our ongoing emission reduction activities.

We remain optimistic about the opportunities that lie ahead. We have maintained a number of our long term ESG goals, and as we continue to progress, we have set new targets with clear objectives for the future. As part of our inclusive and supportive way of working, we will continue to invest in our people and services.

I believe it is important to build on the culture we have developed over the years as we continue to grow. We live our values as individuals and as a business. Each team member can ensure we deliver our high standards for quality and maintain our reputation built on ethics and integrity. The importance of positivity has been demonstrated throughout recent years, as has treating people equally, and showing support for each other and the communities we work with. Our day-to-day work demonstrates our forward-thinking approach, and we proudly support projects that deliver positive environmental change.

We look forward to building on our sustainability journey as we achieve sustainable growth together.

Dr Adrian Williams Executive Director, APEM Group



Dr Adrian Williams

An exciting future for the Group

As we build on the many accomplishments in our history and the impact we have had on the shared environment, I'm even more excited at what the future holds for our Group.

With our recent acquisitions of Macro Works and NASH Maritime, it's an exciting time for us at APEM and gives us an even bigger opportunity to provide progressive ecological and technological solutions to decision makers around the globe, partnering with them to achieve environmental and social outcomes that matter.

As we continue on our own growth journey, some things stay the same - our own north star if you like. That's our commitment to the environment. Both in what we do as a Group and our own impact - but also in how we partner with our clients to minimise their impact too. We have grown up in the environmental consultancy sector, so ESG is in our DNA. It's who we are as people. And as a Group.

So, as we face into the future, I'm confident that this year and the years in front of APEM, we will see the positive impact we as a combined collective of scientists, technical specialists, and consultants, can have on our shared environment. And my pledge as CEO is to ensure that stays at the forefront of who we are.

Leah McGimpsey
Chief Executive Officer, APEM Group



Leah McGimpsey



About ESG

Environmental, Social and Governance standards measure the impact a business has on society and the environment, its transparency and accountability. The benefits of an ESG programme are tangible and rewarding: reduced emissions, carbon neutrality, engaged employees, confidence in the supply chain and compliance with governing bodies.

Our work naturally focuses on the E: helping clients reduce and mitigate their effect on the environment. But that doesn't mean we are neglecting the S and the G. Here's how our work impacts each of the Environmental, Social and Governance standards:

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This metric quantifies a company's environmental impact allowing reduction targets to be set. Ways to tackle this include looking at the delivery of work, not just our core staff but also considering our supply chain including:

- Energy, water, waste consumption reporting and reduction programme
- 2 Ways to reduce our work-related carbon emissions
- 3 Enhancing biodiversity and ecosystems
- 4 The effect on air and water quality
- 5 Managing waste responsibly
- 6 Energy management and responsibly using natural resources



This part of ESG deals with how the company interacts with society and improves lives, considering:

- 1 Staff training and development
- 2 Community outreach and engagement
- 3 Customer engagement
- 4 Health and wellbeing
- 5 Fairness in pay
- 6 Employee and stakeholder engagement
- 7 Data protection and privacy policies
- 8 Human rights and slavery statements



This differs from business to business and takes in industry legislation. A robust ESG policy will have specific details regarding:

- 1 Industry best practices
- 2 Training on policies and policy violation tracking
- 3 Board composition and engagement
- 4 Business continuity planning
- Business ethics and anti-bribery
- 6 Risk management
- 7 Cyber security

Contributing to the United Nations Sustainable Development Goals

The Sustainable Development Goals (SDGs), or global 'goals', are a collection of 17 goals designed to be a "blueprint for achieving a better and more sustainable future for all."

The United Nations General Assembly established the SDGs in 2015 with an achievement deadline of 2030. We have prioritised seven SDGs where we believe APEM Group are positioned to have the most significant impact and will incorporate measurable targets into how our actions contribute toward fulfilling the Goals.



APEM Group

3 GOOD HEALTH AND WELL-BEING

GOAL 3: Good health and well-being

Ensure healthy lives and promote wellbeing for all at all ages

Our client work involves safeguarding and restoring the natural environment for the enjoyment of generations to come. We have provided ecological services for the creation of greenways, allowing safe access to the outdoors. We are helping to protect and enhance bathing waters and river quality with water testing, desktop studies, catchment walkover surveys and aerial surveys for leak detection. Our work on Biodiversity Net Gain plans can include enhancing habitats for wildlife and humans alike.

As one of the leading providers of algal bloom assessment and management, APEM have extensive experience of the monitoring and management of water bodies for recreational purposes and have provided expert advice to a range of clients on the safe pursuit of water contact sports. For example, APEM are the specialist water management consultants at Salford Quays. We have provided this service every year, for 18 years to date, we monitor the water quality to ensure it was safe for all water sports activity at this busy location. This includes kayaking, rafting, triathlons, camps, and open-water swimming activities. We have provided such water-monitoring services at Olympic, Commonwealth, European and other international events from triathlons, iron man, and many other swim events.

Photo of silver studded blue butterfly by Ben Jones



Case study: APEM Ltd

The Crinan Canal - Scotland

In 2022 APEM Ltd were commissioned by Mackenzie Construction to deploy a team of fisheries scientists to the Scottish Crinan Canal, to undertake a fish rescue.

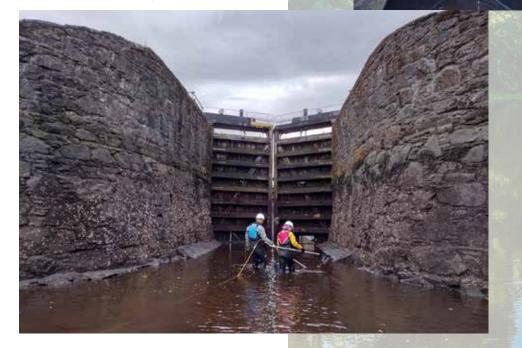
Major engineering works can require canals to be drained and therefore demand planning to make sure that potential impacts are controlled. As part of Scottish Canals' ongoing Crinan Canal winter works programme, local children got to witness APEM's specialist team conduct a fish rescue from dewatered sections of the canal between Locks 5 and 15.

APEM's Matthew Heeps, Fiona Stephen, and Alexandria McAlpine were well prepared for the week-long fish rescue to help preserve fish populations within the canal. It was essential to relocate the fish as soon as possible, as dewatering left the fish more vulnerable to predators and there were notable populations of heron, otter and other predators in the area.

The team also took part in an event at Oakfield Bridge, showcasing their work to local residents and allowing them a rare opportunity to have an up-close encounter with the fish they had rescued, and to watch them be released to safety.

In total, the team managed to successfully rescue and relocate over 1,000 individual fish, comprising six species: brown trout, European eel, roach, flounder, stickleback and minnow.

APEM's team completing the fish rescue



APEM's Matthew Heeps holding some brown trout

"It was really great to see so many youngsters getting excited about their local environment, and different fish species" Matthew Heeps

Photo: Unsplash

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GOAL 6: Clean water and sanitation

Ensure access to water and sanitation for all

The water industry faces many challenges – pollution, leaks, drought, increasing demand and scarcity, to name a few. Our freshwater ecosystems are in increasing danger from urbanisation, agriculture and climate change, which is further amplifying these challenges. Clean water and sanitation comprise a large part of our work, helping water bodies and companies implement the Water Framework Directive (WFD).

We conduct freshwater and marine ecological projects to deliver improved water quality standards. Our work involves a commitment to pollution response and monitoring services, including wastewater treatment works spills, combined sewer overflow impacts, sediment runoff and chemical spills. We support our clients with innovative tools to support long-term strategy for drought, invasive species management, water abstraction and reservoir management.

We also have a strong history of working on aquatic restoration projects to raise the conservation status of habitats and species within water catchments, assisting with EU funding for habitat restoration projects that will benefit stakeholders and communities.

Our UKAS accredited methodologies and laboratories place APEM at the forefront of algal analysis and are trusted by water companies, government regulators, water sports centres and local authorities. We investigate the causes of and management of algal blooms in numerous drinking water reservoirs throughout the UK and Ireland, to make sure the water is safe for all.

We also ensure all our field workers adhere to strict biosecurity measures to prevent contamination between water bodies in which we work.

Our water use

Water usage data is derived from our Stockport HQ and Stockport stores. For our remaining sites we have provided estimates based on the number of full-time equivalent employees using the offices as we do not have access to water usage data within serviced offices. We will be working to engage with our landlords to obtain water use measurements to allow us to monitor our usage and set reduction targets. Due to the nature of our work, we are aware of the importance of water resource management and work hard to communicate responsible water use to our teams working within our office network. At some of our sites, we have water saving devices in place and communicate with employees across the group to promote water saving behaviours and responsible use of our our water usage across the Group.



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GOAL 9: Industry, innovation and infrastructure

Build resilient infrastructure, promote sustainable industrialization and foster innovation

The unprecedented growth of the renewable energy market has driven a drastic evolution of the power and utilities market around the world. Ageing infrastructure and networks need innovative approaches to ensure that customers receive the demand response from the grid.

The APEM Group assists the development of sustainable infrastructure. Our high resolution digital aerial surveys for linear asset and route mapping generate topographic 2D and 3D outputs that can be used for route optimisation and cable route surveys as well as accurately mapping buildings, pylons and transmission lines. Data can be used for earthworks calculations for new infrastructure projects to manage volumes such as stockpiles, embankments and cuttings on construction projects. In the UK and Ireland our specialist field teams of aquatic and terrestrial surveyors are trained Ecological Clerk of Works (ECoW) and work on site to observe, support and maintain developers' environmental and planning obligations.

Despite a skills shortage, the construction industry is thriving and is becoming more sustainable and conscious of its impact on the environment. The complex balance of the needs of society, more stringent and evolving legislation and the environment requires a sensitive and responsible equilibrium. The demands on the land-based transport network are also increasing, and the APEM Group are ideally placed to support with geospatial and environmental planning support.

Aircraft-mounted laser technology, LiDAR, is used to generate a point cloud of the landscape for vegetation risk assessment for overhead transmission lines: mapping the proximity of vegetation to overhead transmission lines and identifying trees posing a strike risk to the network. Clients across many industries use our LiDAR services for projects such as topographic mapping, power line mapping, studies of woodland, archaeology, flood plain modelling, city planning, line of sight analysis and construction phase monitoring.

APEM have recently pioneered other applications of LiDAR to accurately map bird flight heights for the offshore wind industry. This innovative use of technology has been recognised as best practice by Natural England¹ in their guidelines for offshore wind farms¹.

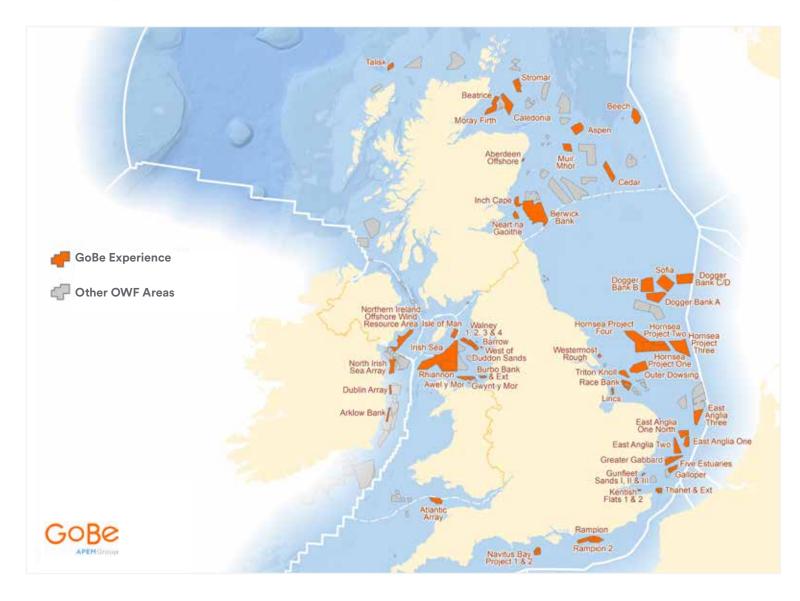
GoBe, who joined the APEM Group in 2022, are one of the leading offshore wind consultancies and offer support with the guiding regulation and planning requirements for developers in the UK, Ireland and North America. Since 2009, GoBe have been involved in 46 offshore wind projects and have provided significant consultancy services to over 50% of the UK's and Ireland's offshore wind projects.

https://www.apemltd.com/natural-england-apems-use-of-lidar-is-best-practice-for-offshore-wind/

Photo of offshore wind farm in the sea by Paul Littlefair

GoBe involvement in offshore wind projects in the UK and Ireland

GoBe are currently the lead offshore Environmental Impact Assessment (EIA) consultant for 3 of the 6 Irish Phase 1 projects, and their team are at the forefront of innovation in delivering robust EIAs in an increasingly busy market.

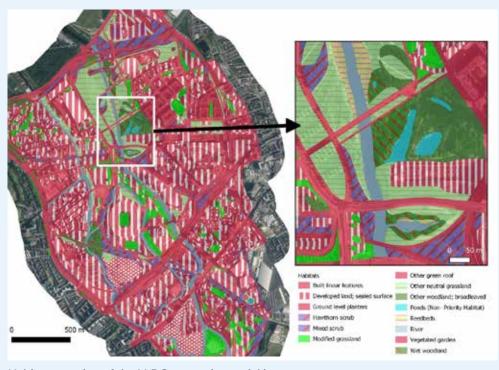


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Case study: APEM Ltd

Innovating the Biodiversity Net Gain delivery process



Habitat mapping of the LLDC area using aerial imagery.





Biodiversity Net Gain (BNG) aims to leave the natural environment in a measurably better state than it was beforehand. The Environment Act 2021 requires BNG to be considered in England on most Town and Country Planning Act developments and Nationally Significant Infrastructure Projects (NSIPs) granted from November 2023. This will require at least a BNG of 10% for a 30-year period.

Project:

In December 2022 APEM Ltd were commissioned by The London Legacy Development Corporation (LLDC), to provide an understanding of the habitats and biodiversity within their area and to identify potential locations and methods for biodiversity enhancement.

Our approach:

For this project APEM Ltd utilised commercially available digital aerial imagery. By using aerial data, APEM Ltd were able to provide a comprehensive assessment of a large area including rooftop habitats, a key location in the urban environment, without delay.

A UK Habitats Classification survey was carried out, mapping an area of 4.9km². Combining the UK habs survey with further existing information (e.g. Biodiversity Action Plan and monitoring reports) a BNG assessment was carried out for the entire local authority area. This provided a useful baseline, especially in the context of the ecology reports required by the Environment Act 2021 and for the Local Authority when assessing new planning applications.

The outcome:

The success of this project shows that aerial imagery can allow a large area to be covered that would be unfeasible on foot, with inaccessible locations and numerous landowners. It shows that by adopting aerial imagery APEM Ltd were also able to confidently apply a good classification of habitats to the "broad habitat" level and for some habitat types determination of specific habitats. The BNG assessment provided the Local Authority with a baseline and starting point from which to guide future further assessment.

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GOAL 11: Sustainable cities and communities

Make cities inclusive, safe, resilient and sustainable

Waste

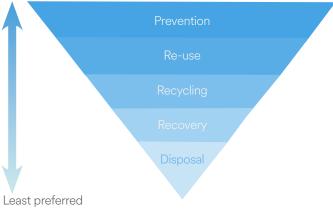
At the APEM Group we recognise the importance of minimising waste by following the steps of the waste hierarchy - prioritising prevention, reduction, reusing and recycling our waste. On sites where waste management is within our control we have complete data sets. These sites are our Stockport HQ, our Stockport Stores, Letchworth Office, South Wales Office, and South Stores. For these sites we have been working with waste management service providers to get more detailed information on how our waste is processed. Across the Group we have also been engaging with our landlords to gain more accurate waste data and to understand the outcomes of our waste management and disposal procedures. Our plan is to use this data to inform our waste reduction and recycling targets in the coming years. Many of our sites currently have a zero waste to landfill policy arranged by waste management providers and we want to investigate how this can be rolled out across all of the APEM Group's sites. In the absence of complete data, we have made estimates of waste for each of our remaining sites using assumptions per full-time employee and typical site processing percentages.

It is difficult to collate data from serviced offices and our efforts within these offices will be to maximise recycling and do our best to ensure that most of the waste that leaves our offices is destined for recycling. This is actioned with active waste segregation at sites. The waste hierarchy is implemented

across our Group sites, with efforts to reduce resource use, reuse office materials and repurpose items where possible. We continue to ensure that our IT equipment is recycled and repurposed by our specialist computer recycling company and to ensure that we dispose of all chemicals legally and responsibly. Waste is a consideration for the environmental committee and a focus for the environmental champion. Internal communications to staff have promoted and supported positive behavioural change in consideration to waste management at sites. Please see Appendix B for our waste generated data for 2022.

Waste Hierarchy Pyramid²

Most preferred



Maximising opportunities for environmental improvement and nature recovery

We are committed to sustainable business practices which focus on protecting and restoring the economy, community and environment. APEM have extensive experience of optioneering restoration or improvement options to maximise geomorphological diversity, floodplain connectivity and associated habitats and doing so in a way that works with natural processes rather than relying upon hard engineering. This could also include identifying potential alternative options to hard structures for the purpose of trapping sediment, such as large woody material to create dams. We are also well-versed in using restoration and improvement options for the purpose of Biodiversity Net Gain (BNG).

² Adapted from DEFRA 2011

Sustainable transport

APEM supports the 'Cycle to Work' schemes in the UK and Ireland where our staff can avail of tax incentives for the purchase of bicycles and accessories for commuting to work.

Carbon dioxide emissions are the leading cause of global warming and climate change. Greenhouse gas (GHG) emissions from road transport make up around a fifth of emissions. Reducing emissions from road transport remains a significant challenge as the UK looks to reach Net Zero emissions by 2050. To deliver on this goal, the UK government's Road to Zero transport strategy includes the ambition that by 2050 almost every car and van will be zero-emission. In Ireland, the Climate Action Bill will ban the sale of new petrol and diesel cars from 2030. As we come to terms with our collective obligation to reduce emissions urgently, we must also take responsibility for our contributions at the APEM Group, with fleet being a significant component of this.



Photo of offshore wildlife aerial survey data collection, APEM

APEM Group vehicles 2022

APEM Group vehicles	Leased vehicles	Owned
Diesel / Petrol	9	7
EV	2	

Vehicles in our company fleet are relatively new, and support efficient driving with gear-shift, eco-driving indicators and tyre-pressure monitoring systems in place. Driver awareness forms part of the APEM Group suite of training for staff who drive as part of their role. Regular servicing also ensures our emissions from work travel are regulated. We are monitoring the engine size of fleet vehicles and offering smaller cars where possible and are pleased that two of our Group vehicles are electric vehicles (EVs). We have been in discussions with EV providers to see what can be provided in the future across the Group. However, there are still numerous challenges involved in this transition to EV, mostly centred around the logistics of charging points. In 2022, our employee commute across the APEM Group in personal vehicles was 252,470 miles which provided a carbon footprint of 69 tonnes. An employee commuting survey has been rolled out across the Group this year to better understand driving practices and ways to support staff that commute into our offices.

Purchased fuel from our subcontracted aircraft has made the most significant contribution to our Scope 3 carbon emissions, coming in at 672.60 tCO₂e. Collating such robust data means we now have a baseline against which we can compare future emissions and measure our reduction efforts.



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GOAL 13: Climate action

Take urgent action to combat climate change and its impacts

The reliance on fossil fuels is a key cause of global warming and climate change. The way energy is generated has to change, not only to meet global demand but also to limit the reliance on fossil fuels and embrace existing and emerging renewable technology such as wind, solar, hydro as well as biofuels and biomethane. The APEM Group collaborates with clients worldwide, delivering robust data and guidance to support environmental government policies and renewable energy developers.

The APEM Group are helping to deliver a renewable future globally, throughout all stages of the wind power life cycle, from work on site selection and consents provided by GoBe, specialist field and bat surveys by Woodrow, marine and estuarine benthic studies and Sediment Profile Imagery from AQUAFACT and global best practice surveys at APEM Inc.

The APEM Group will be working to reduce our operational greenhouse gas (GHG) emissions (Scope 1 & 2) from a 2022 baseline. While we work to achieve this, we will purchase offset carbon credits to secure carbon neutrality.

Our energy use

The APEM Group remain committed to addressing climate change and supporting the shift to a cleaner, low-carbon economy. Within energy, that means limiting how much energy we consume and procuring our energy from renewable sources. Across the APEM Group we have been engaging with our landlords in 2022 to understand the sources of energy procured across our sites and operations. This will allow us to request renewable energy procurement at our sites. Where we are responsible for electricity procurement for the Group, we have procured electricity from renewable sources. Please see Appendix A for our energy consumption data for 2022.

In some cases we do not have specific details of our energy usage. This is where smart meters are not yet installed or where we share offices and discrete usage is not recordable. However, we are trying to resolve this to allow us to better estimate energy usage across our sites and identify locations where we can target our

energy reduction initiatives. In some locations, we have been able to install smart meters which are able to record energy usage data at a greater level of detail. Not only can this energy data be used as part of energy reduction plan, but also incorporated into future carbon calculations. We are also liaising with landlords of energy improvement initiatives where possible such as installation of LED lighting, motion sensors and installation of insulation.

We are working closely with our environmental committee representatives to reduce energy consumption per capita at each site. They are promoting ways that employees can minimise energy use through energy reduction campaigns. This includes minimising energy use in the office such as monitoring lighting and shutting doors along with energy saving tips for staff working from home especially during the winter months.



Our route to Net Zero

The APEM Group will identify carbon emissions reduction opportunities as part of our Net Zero Plan which will be launched in 2023. It is of the utmost importance for APEM Group to work towards reducing the emissions we produce. In addition to this, we will be offsetting the Scope 1 and 2 emissions as part of a carbon neutral programme.



Climate risk

Not only have we considered our direct impact towards climate change through calculating and reporting our carbon emissions, but we have also considered the impact of climate change on our business, looking at potential challenges and changes in the future.

Carbon emissions are the leading cause of global warming resulting in climate change. Individuals, businesses, and organisations have a role in supporting the urgent need to transition to a Net Zero carbon and more resilient world. Calculating our annual carbon emissions is a critical step in understanding our contribution to global warming.

Carbon emissions APEM Group 2022	tCO ₂ e
Scope 1 – Direct emissions	222
Scope 2 – Indirect electricity emissions	55
Scope 3 – Other indirect emissions	2,884
Total	3,161

To identify key emission focus areas for the business going forward, we calculated Scope 1, 2 and 3 emissions for our company operations by gathering primary data from our sites across the UK & Ireland and the US.

- Scope 1

 Mainly carbon emitted from company vehicles
- Scope 2
 Carbon emitted from building electricity usage
- Scope 3

Carbon emitted from our subcontracted aircraft³, waste disposed, water, personal and hire car vehicle mileage claims, business travel including emissions from hotel accommodation, capital goods, employee commuting as well as homeworking.

We have set ourselves an interim target to reduce our operational greenhouse gas (GHG) emissions (Scope 1 & 2) by 45% by 2030 from a 2022 baseline.

Our emission categories overleaf highlight how we have completed this for 2022.

³ Calculated emissions relating to aviation have been uplifted by a factor of 1.4 to account for the equivalent radiative forcing effects of air travel.

Table 1: APEM Group carbon emissions for 2022

Scope / Category	ltem	Total tCO ₂ e	%
Scope 1			
Stationary combustion	Fuel / Gas consumed	0.05	0.0%
Transport	Owned and leased vehicles	221.9	6.9%
Refrigerants	HVAC's	-	0.0%
Scope 2			
Electricity (Location based) ⁴	Purchased electricity, steam, heating & cooling for own use	96.9	3.0%
Electricity (Market based) ⁵	Purchased electricity, for own use (specific contract)	55.2	1.7%
Scope 3			
Cat 1: Purchased goods and services	Goods and services	1,571.8	49.1%
Cat 2: Capital Goods	CapEx expenditure	750.45	23.4%
Cat 3: Fuel & energy related activities	WTT (Well-To-Tank) & T&D (Transmission & Distribution losses) from electricity, gas, transport, business travel and employees commuting	215.5	6.7%
Cat 4: Upstream transportation	Paid transport for goods (upstream & downstream) (well to wheel (WTW)	17.3	0.5%
Cat 5: Waste	Waste	7.1	0.2%
Cat 6: Business travel	Land and air travel for business purposes	86.3	2.7%
Cat 7: Employee commuting	Employees commuting to and back from work	88.4	2.8%
Cat 7: Employee working from home	Carbon emissions associated with home working utility use	147.1	4.6%
Total (Market based)		3,161	

⁴Location based represents emissions from electricity consumption based on grid average emissions.

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⁵ Market based represents emissions from electricity consumption based on specific energy contracts.



GOAL 14: Life below water

Conserve and sustainably use the oceans, seas and marine resources

Nearly three quarters of the earth's surface is classed as a marine environment and the complex ecosystems that rely on it are extensive. The APEM Group support clients across the world with their environmental and sustainability challenges and issues.

APEM offer the full range of marine ecology services to clients working in coastal, estuarine and offshore environments, supported by dedicated field teams and accredited laboratories.

Our diverse client base includes aquaculture companies, marine renewable developers and aggregate extraction companies, alongside nature conservation bodies and regulators. We are experienced in providing advice on protected areas to developers, regulators and nature conservation bodies, assessing the effects of development on these areas, as well as conducting condition assessments.

APEM also have excellent relationships with regulatory bodies, statutory nature conservation bodies and stakeholders working in the marine environment.

These relationships have been developed over a large number of projects across many industries, with our consultants working to agree appropriate and proportionate mitigation strategies and bespoke monitoring plans for projects.

Photo: iStock

Case Study: AQUAFACT

Lagoon designation

AQUAFACT were contracted by the National Parks and Wildlife Service, part of the Department of Culture, Heritage and the Gaeltacht, to determine if Tawin can be defined as a lagoon within the Habitats Directive. Tawin is located at the eastern end of Galway Bay on the west coast of Ireland.

Coastal lagoons are a priority habitat in the Habitats Directive. As a result they are under increased site protection measures to ensure their continued survival, as so much of the habitat in Europe has disappeared or been degraded for a variety of reasons.

Photo of Tawin taken by AQUAFACT's Shay Fennelly

Lagoons typically contain brackish water (seawater that has been diluted to varying degrees), so they can be a habitat for marine and freshwater flora and fauna. In these environments there will also be the presence of lagoonal "specialists", plants and animals that thrive in these conditions. Without protection measures these would be threatened with extinction.

Surveys were carried out to characterise the hydrological regime within Tawin and compare it to the open water. This assessed character and quality of the barriers and described typical animal and plant species including lagoonal "specialists".

AQUAFACT gathered data on currents and tidal elevation. Bathymetric surveys using an echo sounder provided



accurate information about the depth of the lagoon. There were terrestrial coastal habitats to survey, including extensive areas of salt marsh on stony soils and mid-upper marsh, as well as vegetated shingle. Intertidal and subtidal species of flora and fauna were recorded using methodologies including water and sediment sampling, granulometry and photos from land, boat and SCUBA dives. This work led to a previously unrecorded bed of eel grass being recorded in one part of the lagoon. Also noted were a rarely recorded bivalve and an eyeless species of marine worm that had not previously been recorded.

AQUAFACT concluded that Tawin fits the definition of a coastal lagoon as defined by the Habitats Directive: it is an expanse of "shallow coastal salt water, of varying salinity and water volume, wholly or partially separated from the sea by sand banks or shingle". Its physical oceanography was the most convincing reason for its classification. As a result of this work, Tawin will now be included on the national list of lagoons and offered additional protected status.

Photo of Zostera marina bed (lagoonal specialist) and sandy ground

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GOAL 15: Life on land

Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

Our team of experienced ecologists and technical specialists work across the UK and Ireland to support clients through every stage of the development and planning process. We collect and evaluate data, assess impacts, design ecological mitigation, and provide reports and plans to inform our clients' projects. Our work takes in complex projects such as those with multiple (often conflicting) ecological sensitivities where bespoke or innovative solutions are required.

We regularly work with, and under, regulatory frameworks including Natural Resources Wales, Natural England, and Nature Scotland to deliver development licence applications. We also consult with the regulators on behalf of our clients, to secure positive outcomes for projects and nature conservation. Our habitat restoration work advances nature-based solutions for global issues such as climate change, including peatland restoration projects both for landowners and state agencies in Ireland. Peatlands provide ecosystem services including climate regulation, water quality services, flood alleviation as well as carbon sequestration in restored sites.

Protected species surveys are part of many licensing applications, and our support includes evaluating data, assessing impacts, identifying mitigation actions and preparing reports and plans to support an application to the planning authority and the statutory nature conservation body.

Photo of female stonechat by Jack Blackburn



Case study: Woodrow

Biodiversity audit

Project:

Woodrow were commissioned by The HSE Climate Action and Sustainability Office to complete biodiversity audits of two Irish hospitals and their campus, and surrounding grounds. These were the Sligo University Hospital a site of 12.6 ha, with 30% of this green space and the larger Letterkenny University hospital campus and St Conal's hospital grounds at 21 ha, with 40% of this green space. The remainder of land is occupied by hospital buildings, car parks, roads and other paved areas.

The work was completed to provide a Biodiversity Audit for each hospital in support of the An Taisce Green-Campus Programme and the HSE Climate Action Strategy. The initiative forms part of the Green Campus Programme which aims to contribute to the All-Ireland Pollinator Plan and Climate Action Plan, as well as inform the placement of biodiversity signage within the campus.



Our approach:

A desk study was undertaken to identify species previously recorded at the site, and any rare or protected species. This was followed by Phase 1 ecological surveys across each site. This involved walking the entire site and assessing each parcel of land and boundary feature within the site, assigning a standard habitat classification to each area, and producing a habitat map as shown overleaf for Sligo Campus.

Several biodiverse and valuable habitats were identified within the grounds of both Letterkenny and St Conal's Hospitals. These included; semi-natural, floral-rich dry meadows and grassy verges, wet grassland, species-rich hedgerows, dry sandy banks and deadwood. These habitats provided valuable cover, foraging and breeding habitat for a wide range of mammals, invertebrates and bird species. Evidence of red fox was observed within the tussocky grassland and a wide range of bird species including wren, goldcrest, wood pigeon and starling were observed using the hospital grounds.

The outcome:

Across both sites, recommendations for biodiversity enhancement were made in addition to measures already in place. Some of these measures included: reducing/changing the existing grass mowing regimes in certain areas in order to maximise the benefits for wildlife, planting of bulbs and wildflower seeds where appropriate to provide colour and food for birds and pollinating insects, erection of biodiversity signage to encourage both public and staff engagement as well as the installation of both bat and bird boxes, where suitable, throughout the grounds. These recommendations aimed to increase visitor, patient and staff access to nature and support mental health wellness throughout both hospitals.

These projects not only contribute to the environmental and biodiversity maintenance and enhancement of the area but also provide long term value to the communities, staff and patients of these hospitals.

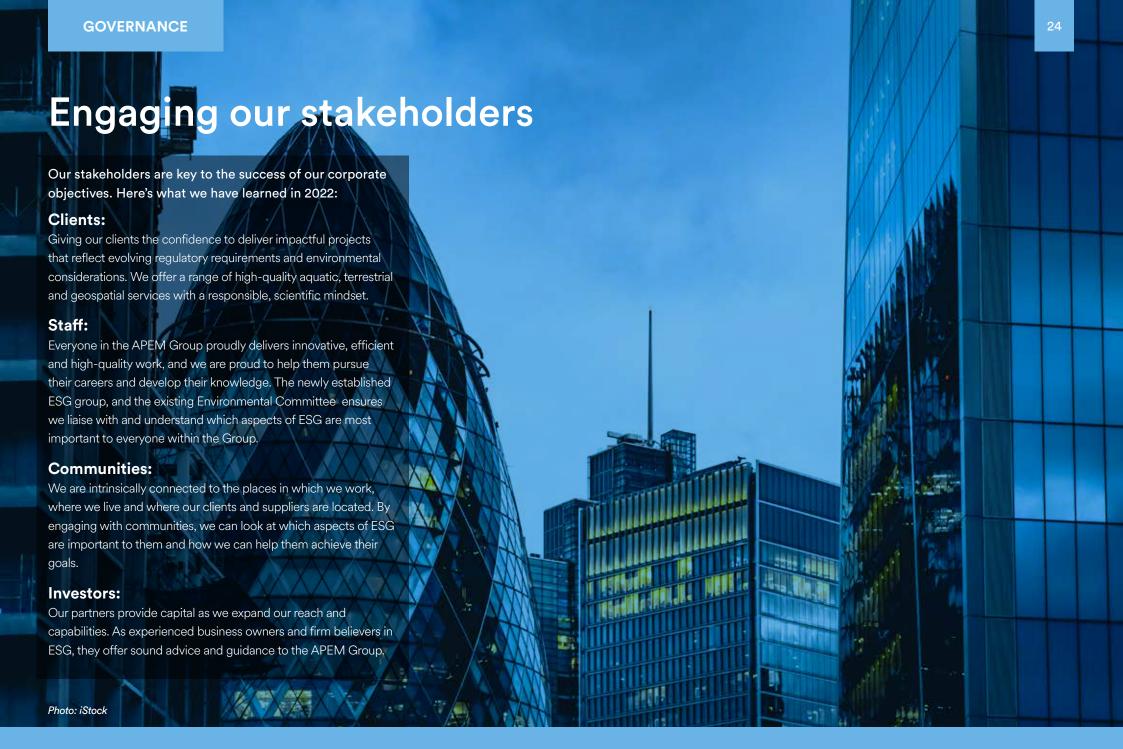
Photo of scrub habitat to the north west of the Letterkenny site by Rick Crowley

A habitat map for the Sligo Hospital Campus



APEM Group ESG Impact Report 2022

APEM Group



Leadership and governance structure 2022

Group board

Chairman (non-exec)

| CEO | Finance Director | Sales Director | Investors | People Director | CSO |

Responsible for setting overarching strategy and direction, ensuring viability, long term success and managing sustainable growth.

- Delivers annual strategic plan
 - Reviews risk
 - Integrates ESG
 - Governance assurance

APEM board

Responsible for delivering strategic objectives and day to day operations.

- Manages legislative and regulatory obligations
- Oversight of compliance (internal systems and external standards)
 - Directs resource to manage risk
 - Monitors health, safety and environmental performance

Staff Engagement Group

- Representatives across the Group
- Provides employee engagement and operational response

Topic Specific Health and Safety Groups

- Monitors H&S performance
- Identifies and progresses opportunities for Improvement

Audit Committee

Reviews Audit Findings Report

Remuneration Committee

Approves employee reward packages

ESG Committee

HSEQ and Sustainability Director

| Sustainability & Communities Lead | People
Representative | QE Manager |

- Manages ESG strategy
- Delivers annual ESG objectives

Environment Committee

• Representatives from across the Group to champion environmental best practice.

Integrating ESG into our operations

Our policies and compliance

To ensure effective governance across the Group, our policies encompass the breath of our activities and meet the needs of our operations. We are transparent with our employees about the availability of policies and they are published on our intranet. To make sure policies remain relevant to our operations they are updated regularly and as part of this process are formally reviewed at least every two years. When changes are made to policies it is important for us to communicate these to our employees, so they can stay up to date with compliance and our latest sustainability initiatives. To ensure effective uptake on policies, we provide training as required, delivered through our online training portal, which allows revisions to be well communicated across the Group. We encourage employees to report deviations and opportunities for improvement as part of our continual improvement programme.

Our risk management process

At the APEM Group, we manage risk through the use of a detailed and comprehensive Risk Register to highlight, manage and mitigate potential risks across our business. This register considers risks for the business covering financial, operational and reputational aspects. The register is updated monthly and reviewed through the board structure on a quarterly basis In addition to this, we also have a HSEQ Risk Register. This is used for health and safety, environmental, project related and data protection risks. It is also used to account for specific operational risks such as risks related to aerial surveys.

To ensure we are able to continue to operate in light of unforeseen circumstances we have a Business Continuity and Disaster Recovery Plan in place. This is kept relevant to our operations through an annual review and update process. As new subsidiaries join the APEM Group, a priority is to ensure IT systems are upgraded where necessary to make sure these remain relevant and applicable across the Group.

We reacted to the uncertainty of the Covid-19 Pandemic and updated this plan to enable better support and guidance for our employees. As part of this process we also conduct internal audits to ensure that we are aligned to ISO 9001, ISO 14001, ISO 45001 and ISO/IEC 17025 certification standards and recommendations.

Anti-bribery and corruption Integrity sits at the core of our Group values.

Alongside our ongoing growth and addition of new members to the group, we have renewed our commitment to ensuring that there are effective systems and processes in place to counter, bribery, corruption, and corporate criminal offenses across the Group. As part of this commitment, we have been constructing and implementing Anti-Bribery & Corruption and Corporate Criminal Offence policies for the group, developed ready for use in 2023.

Grievances and whistleblowing

It is important to us that staff feel that they are able to raise any grievances or concerns about our business. At the APEM Group, grievance and whistleblowing policies encourage staff to register issues they deem a risk to our operations and for matters that require the attention of the senior team, or if necessary, the Board.

Integrating ESG into our operations continued

Digital

Collecting and processing personal data in a fair and transparent manner ensures we are aligned with the General Data Protection Regulations (GDPR) and their application in the UK and Ireland. This process is managed by our data protection team, who oversee that our Group policy and strategy is correctly implemented. Data considerations also form part of our APEM Group risk register. This risk is managed as part of an ongoing improvement cycle and is scrutinised at Board level. On occasion, clients may request data access permissions to be granted to specific personnel. In this instance strict data handling processes are put in place to maintain data protection and security is maintained.

To govern how all data is handled we have a Data Breach Procedure in place. This is to ensure that we take responsibility for the actions of our employees in how they handle data that is received. This procedure is available on our intranet, and we have a documented, staged approach to any incident response. End users are able to log data breaches or concerns via our intranet, leading to a quick escalation.

Cyber security

APEM's data, systems and network are well protected with robust internal security measures with proven, tested, market-leading anti-virus software solutions. We regularly assess and research additional security solutions for the business in partnership with our external specialist support provider to ensure that we have appropriate policies, oversight, training, software, and processes to remain cyber safe. We are currently upgrading and migrating these systems and processes to ensure consistency across the APEM Group.

APEM Ltd is Cyber Essentials certified: a validation of the high standards at which we operate. This certification is being expanded to the APEM Group in 2023 once our systems have been integrated. We regularly send communications out across the Group relating to security awareness and reinforce the importance of cyber security during cascade meetings. In addition, security testing takes place annually with penetration testing and phishing attack scenarios to ensure employees remain vigilant.

Photo: iStock

Embedding ESG into our supply chain

We seek to do business with organisations and suppliers who understand and share our aims and values. Everyone involved in the procurement of goods, services or works from the external supply chain understands the commitment to providing the highest quality of service, to add value, minimise costs and have limited negative impact on the environment.

The way we manage our procurement and supply chain makes a huge difference to our profitability, our reputation and our success in meeting our sustainability objectives. Using vendors, business partners and third parties gives us flexibility and is integral to the sustainable delivery of client commitments. We strive to:

- Make sure that suppliers comply with our policies and other legal requirements (including health and safety, human rights and labour standards, and employment laws)
- Identify the risks associated with using suppliers and manage these risks to an acceptable level
- Ensure that the roles and responsibilities of suppliers are clearly defined and adhered to
- Ensure that the way we supply and develop our services reflects our sustainability objectives and those of our clients

Photo of Installation of a replacement water supply pipeline at Llanishen Reservoir, crossing the Nant Fawr stream, South Wales. APEM provided Ecological Clerk of Work services for this project to minimise ecological impacts and restore and enhance the area.

Our approach to procurement is based on four principles:

- We uphold ethical business practices and comply with legislation
- We are an intelligent customer. We understand the risks and complexities of the services we procure and are able to respond to performance issues appropriately
- We influence the priorities of our key suppliers so that they align with ours and those of our clients, to ensure a sustainable service to our clients
- We ensure diversity is embedded within our supply chain



Requirements

Supplier selection: APEM will appoint suppliers for their ability to perform as defined, as well as taking into consideration social values, ethical practices and environmental impacts.

APEM will encourage suppliers to monitor the sustainable credentials of their own suppliers.

Manage contracts: APEM will ensure that all contracts address the key issues. These include defining vendor expectations, performance, scope of work, and deliverables. In particular, APEM will seek confirmation regarding understanding of and adherence to APEM policies and make sure that all contracts protect our physical and intellectual property and data.

Extend opportunities: Provide equal opportunities for SMEs, minority owned businesses, social enterprises and the voluntary and community sector.

Manage subcontracting: Ensure that any right to subcontract included in the contract is expressly agreed and approved by APEM's legal staff prior to commencement.

Monitor suppliers: Monitor suppliers to ensure that the supply chain risk is managed.

Embedding ESG into our supply chain continued

APEM suppliers

- 299 approved suppliers in the APEM Group database
- 50% of our suppliers have been working with us for over 10 years
- ESG materiality survey to be rolled out to suppliers in 2023

Supplier vetting process

- Company information
- Financial standing and insurance
- Certifications and management systems
- H&S statistics
- GDPR compliance
- Policies and procedures beyond core business function
- ESG and ethical compliance eg human rights, community impact, fair employment and climate
- Local supply chain preference

Supplier review process

- Suppliers reviewed annually
- Announced audits take place
- Critical suppliers undergo field audit
- Compliance with anti-bribery and corruption, HSEQ, Modern Slavery and GDPR



Photo: iStock

ENVIRONMENTAL 30



APEM Group

Plastic pollution is a sight that our technical teams see all too often when they carry out surveys whether on land, water or from the air. Therefore in 2022, the APEM Group took part in the global movement *Plastic Free July.* Our Environment Committee launched an awareness campaign during Plastic Free July, focused on the message that small changes can make a big difference.

During the month, we carried out a waste audit to identify better methods for dealing with waste, which provided better monitoring data in terms of how much waste is recycled and ensured that no single-use plastic such as cutlery, plates, cups and bowls were used in any of our offices. The team also shared helpful tips to encourage employees to shop in a more environmentally conscious way. Overall, the campaign was received positively and represents a step forward in our journey to continuous improvement.

But our attitude to waste runs deeper: our resourceful field teams collect rubbish during the course of their work and re-use it as much as possible, for instance, making fish measuring boards from plastic sheets discovered in the River Mersey and preventing plastic from reaching the ocean. Our award-winning litter boat: The Irwell Pride - pictured above, can be found around the upper Manchester Ship Canal and River Irwell corridor, scooping up litter with the help of corporate sponsors and the Mersey Rivers Trust. Each trip nets around 1,000 litres of litter and harmful plastics, making the city centre and Salford Quays much more pleasant for

people and wildlife.



Photo: iStock

Nurturing our talent

We are incredibly proud of the APEM team and we work hard to foster a culture that supports our people and connects their efforts to outstanding services and outcomes for our clients. From consistent and meaningful engagement through to wellbeing initiatives, we are focused on ensuring our people thrive whilst building long-term careers with us.

Our Investors in People accreditation is testament to our performance excellence in leading, supporting and improving our people.

Our people

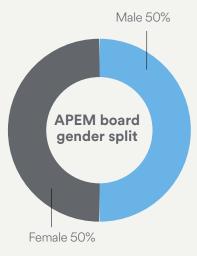
At 31 December 2022, the APEM Group workforce totalled 488 employees, representing multiple nationalities worldwide. There were 249 female employees (51%) and 239 male employees (49%), representing a balanced workforce on the basis of gender. Gender diversity is also seen within our senior management team, our APEM board has a gender ratio of 50:50 male to female and our group board has a 50:50 split.

We enthusiastically published our first Gender Pay Gap report in early 2023 (based on our 2022 salaries), which set out clearly our current position and philosophy as well as areas of focus and activity.

In addition we are continuously developing our wider pay fairness with annual salary benchmarking and adoption of the Living Wage.







Connecting and listening

Facilitating a strong engagement culture across the APEM Group is crucial to ensure both individual and collective understanding and growth across our teams. This is particularly important in a geographically spread organisation, where many people work from home or on a hybrid basis. A couple of key pillars have been designed and curated to drive connection: Our employee intranet, The Source, has been developed into a highly collaborative central platform for teams to discover and share content, tools, guidance and stories. This is supplemented by 'The Pulse' quarterly whole of company meetings and open Leadership Q&As.

We are continuing to grow our Internal, Technical and Social Communities where people can connect and form relationships across the group beyond task-related interactions – everything from GIS tagging to Gardening, Wellbeing to Walking, Invasive Species to Inclusion.

Our Wednesday Webinar is one of the stars in our Organisational Knowledge learning platform. Our scientific minds love to share with and learn from each other and this inter-specialist understanding better enables our teams to come together around our clients' complex and layered challenges.

Through the year we run a schedule of listening surveys, including a six-monthly broad engagement survey and shorter topic-specific surveys in-between. With high completion rates for these surveys, we gain valuable insight that benefits our organisational planning and priorities and ensures our approaches stay in tune with the collective view. We are also able to benchmark the component engagement scores externally and set ourselves targets to match the highest performing businesses in our sector.



Meet an APEM Star:

Hannah Austin - Divisional Director

APEM's (hydroponic) roots are in its services to support the water industry, and whilst our range of services have expanded significantly over the past 35 years, it is still one of the cornerstones of our organisation. And alongside the growth of the division has been the development of Hannah Austin, who was promoted to Divisional Director in 2022.

More recently Hannah has managed a growing team of specialists who

abstraction and river regulations, Water quality, invasive and non-native species (INNS) and much more.

cover areas including: Hydro

ecology modelling and analysis,

delivery of freshwater modelling

the design, management and

for infrastructure, Hydrology

and water management, Water

Beginning with a focus on hydrology and water quality management, Hannah quickly progressed to work on a key project for Severn Trent Water, investigating the impacts of abstraction on low flows in freshwater streams. Hannah's experience went from strength to strength with environmental assessments for water companies investigating the impacts of water abstraction, drought permits and managing the risk of deterioration in water framework directive (WFD) status.

Hannah will be the figurehead for the freshwater biology division which is currently made up of 44 technical specialists with expertise in hydro ecology, water quality and invasive and non-native species.

Hannah said: "I am looking forward to encouraging the existing talent within the team, enabling them to do what they do best. It's a thriving and well-established team, delivering great work so it's a big responsibility."

Always learning

We know that employee learning and development are a critical part of our ability to provide a high-quality service that is at the forefront of environmental consulting capabilities.

We have recently relaunched our vision and mission for the organisation and underpinned this with a clear strategic plan for organisational development. Our people's personal goals are connected to this mission and plan and career development is a constant topic of discussion that sits inside an annual framework and is supported by regular workshops focused on people leadership skills. Our combination of technical diversity and growth creates an exciting range of opportunities for our people beyond the traditional linear career path.

We feed the curious minds that we employ with funded professional memberships, external training, and attendance at events and conferences. We have had an e-learning portal for several years, ensuring a consistent bar across the group for essential skills and knowledge as well as core development tools. In 2022 we have invested significantly in upgrading our platform and content library and, through it, developing a true repository for ondemand organisational knowledge that sits alongside live training and on-the-job development activities such as secondments, shadowing and stretch projects.

Health & wellbeing of APEM staff

Health & wellbeing

This is an area we have invested in significantly over the past 2 years. As we emerge from the pandemic, employee health, safety and wellbeing remain at the forefront of our considerations and are fundamental to our people feeling secure and valued.

We have health and safety statements and policies across the group, as well as training which is mandatory and role-specific. We collect safety event data that includes accidents, incidents, near miss data and observations to ensure working practices are robustly and consistently understood and high standards maintained. We use this data to conduct meaningful lessons learned and report to the board on a monthly basis including topics raised pro-actively through 'safety moments' embedded into the board agenda.

When home became work for many of our teams, we learned that flexibility, understanding and balance opened up new opportunities. We understand that the rigidity of 9-5 in an office does not suit everyone or enable them to live a fully

balanced life. So wherever possible we adopt our Ways of Working (WOW) to enable people to work and live in a way that balances delivering as a team for our clients with their family and other community and wellbeing activities. We also recognise that blending work and home can bring challenges, particularly in relation to feeling supportive connection and maintaining boundaries, so we have also invested in our mental wellbeing framework. As well as trained first responders for medical incidents, we also have staff trained as Mental Health First Aiders across the APEM Group. On top of this our Employee Assistance Programme (EAP) offers free and confidential support helping our staff navigate through challenging times.

We also offer a series of benefits to support physical and mental health, including private medical services, permanent health insurance and a health cash plan, as well as benefits to support financial security such as pension, income protection and life cover.

Diversity, Equity, and Inclusion

We recognise that everyone's story is different. The opportunities, experiences and challenges faced in life and across a lifetime shape each of us and the perspective and insight we bring to any team. We believe that embracing our differences and empower our people to be their best means we're able to approach what we do from different angles drawing inspiration and insight together.

Our Equal Opportunities Policy sets out our position on non-discrimination in the attraction and the selection of candidates for both external and internal vacancies. To support this, we are introducing a recruitment training course including content on unconscious bias and reasonable adjustments.

In 2023 we will establish our first Belonging groups across Gender, Working Families and Carers, Ethnic Identity, LGBTQ+ and Neurodiversity. These employee-led groups will partner with leadership to set clear priorities and objectives in making the group an evermore inclusive environment.

Looking forward, we will continue to build on these components, in partnership with our Belonging groups, through a strategic action plan with defined deliverables. This plan will be deployed across the group over a period from 2022-2025.

Community development

The work we do supports environmental improvement with a positive impact on local communities and people's wellbeing. In addition to our day-to-day work, we are involved in a number of community outreach programmes across APEM to support local charities and organisations linked to our business objectives. We have provided funding for employees to arrange community and charity events, with matched funding within limits for charitable activities. To improve our community outreach programme, we have appointed a sustainability and community officer with the responsibility of identifying outreach projects, funding and provision of community engagement and training opportunities on environmental issues.

We have delivered biodiversity workshops, teaching the community to identify tree species, propagate seeds, and create new habitats for birds and bats. We inspired the next generation of ecologists with sand dune walks, pollinator spotting and night-time bat adventure walks. Our team visits schools and universities to try to inspire an interest in our field of work.

Sharon Eastwood – Associate Director, Sustainability and Communities

For over 30 years I have been inspired and amazed by the social capital of volunteers with whom I have worked to advance biodiversity projects. Taking on the new role of Associate Director of Sustainability and Communities allows me to widen my reach across our APEM community supporting our sustainability journey. The establishment of the role also demonstrates the company's commitment to the 'social' aspect of our ESG strategy.

Starting in Autumn 2022, my first focus was internal, collating and sharing details through existing structures about Environmental, Social & Governance (ESG) initiatives across the Group. We were delighted that the Staff Engagement Group's idea for APEM staff to have paid volunteer leave was approved by the Board just before Christmas 2022: a lovely present valued at circa £80,000 per annum.

2023 saw the launch of APEM's new Mission Statement: **TO BRING THE APEM WAY**

TO THE WORLD: Providing progressive ecological and technological solutions to decision makers around the globe, partnering to achieve environmental and social outcomes that matter.

I see my role as integral in advancing this. In 2023 we are issuing ESG materiality surveys to clients, suppliers and sub-contractors, to

determine what are the most important ESG aspects to inform our approaches in this area.

Other exciting opportunities are arising. For example, we are now offering add-ons to our standard consultancy role such as workshops for communities with our scientists to increase environmental understanding of our projects. We can also provide a calculation of the carbon we emit on specific projects.

I am proud to be working in the area and helping in our collective journey to advance sustainability in line with the UN's 2030 Agenda for Sustainable Development.

The APEM Group ESG objectives for 2023

ENVIRONMENTAL

- Reduce our operational greenhouse gas (GHG) emissions (Scope 1 & 2) from a 2022 baseline for the APEM Group
- Achieve carbon neutrality across our Group operations (Scope 1 and 2)
- Achieve independently verified Scope 3
 emissions to allow us to have a baseline
 against which to advance our carbon reduction
 programme
- Engage with APEM Group sites to collect accurate energy, waste and water data where possible to allow us to measure reduction efforts



- Roll out staff ESG materiality survey in 2023 and incorporate suggestions into action plan
- Launch inclusion-focussed committee with membership from across the Group
- Issue Client and Supplier ESG materiality surveys
- Commence paid volunteering hours for staff
- Embed Diversity, Equity and Inclusion strategy across the Group



- Roll out of APEM policies and processes across all companies as part of the APEM Group
- Maintain compliance in regulatory requirements for Health Safety and Environmental event reporting

APEM Group

APEM Group photo competition

Our annual Picture of the Year competition for APEM Group staff always yields some stunning shots.

In 2022, we received over 140 entries in total, ranging from photos of the UK's beautiful shores to those of New Zealand's most elusive species. To choose the ultimate winner of the competition, staff across the APEM Group voted for their favourite photos for each month of 2022, leaving 12 monthly winners, with a final decision made by an external judge.

More of our entries from 2022 and previous years appear throughout this report. The 12 monthly winners are featured on the back cover.



The winner was 'Seal' by Edward Rickard, Senior Marine Fisheries Consultant featured here and on the front of this report.

Other monthly winners are shown below from left to right:

Photo of **Brecon Beacons waterfall** by Lorna Rowe, Principal Terrestrial Ecologist

Photo of **Gannet**by Billy Gardener, Ornithology Consultant

Photo of **Green hairstreak** by Ben Jones, GoBe Marine Consultant







Who we are

The APEM Group

The APEM Group are a world-class environmental consultancy whose passionate scientists and technical experts engage with clients to provide high quality solutions that have a positive environmental and societal impact. Through the experience and commitment of our people we will realise our sustainable growth ambitions.

The Group comprise a growing collection of environmental consultancies providing independent advice and guidance to help governments and organisations around the world monitor and mitigate environmental impacts. As innovators, problem solvers and learners, our expert, technical and support teams lead the way across multiple industries using the latest technology combined with years of experience and a commitment to core scientific principles. Established in 1987, APEM has evolved with the formation of APEM Inc and the 2021 acquisition of Woodrow, followed by AQUAFACT and GoBe in 2022 and Macro Works and NASH Maritime in 2023. Collectively, the APEM Group have offices throughout the UK and Ireland, providing a range of integrated specialist services for clients across the world.

APEM Group

Photo of Dungloe, Co. Donegal, Ireland

APEM Inc

With offshore wind in its infancy in the US, the needs of our clients and the regulatory requirements are ever-changing. APEM Inc offer bespoke solutions to our clients to deal with the evolution of technology, providing robust, accurate data, and making the best use of it long-term. With a shift in focus to sustainable and conscientious development, our clients need to balance the needs of society with rigorous and evolving regulations.

APEM Ltd

For over three decades, APEM Ltd have offered independent advice and guidance to support government and environmental regulatory guidelines. Our team can be found all around the UK: behind a microscope in our world-renowned laboratories, undertaking innovative desk studies and scoping protected species, grabbing freshwater samples and emergency fish rescue, flying our innovative high-resolution digital aerial surveys, or on the ground with eDNA and terrestrial ecology services. Our work has been cited as the benchmark for aerial survey design in the UK for offshore wind, and our labs provide external quality assurance for the analysis of marine biological samples, delivering audit and training services to the highest standard.



AQUAFACT

AQUAFACT are an established marine environmental consultancy based in Galway, which joined the APEM Group in February 2022. AQUAFACT is firmly rooted in the scientific community in Ireland with close associations with the National University of Ireland, Galway (NUIG), Galway Mayo Institute of Technology (GMIT), University College Dublin and Trinity College. We deliver professional and clear advice and guidance to clients from the state, semi-state and private sectors with the highest levels of accuracy, specialising in monitoring and managing resources and offering a multi-disciplinary approach to the investigation of problems in marine and freshwater environments.



GoBe

The future of the renewables industry is bright. And GoBe are meeting the demand for strategic solutions and project-specific experts to support planning and environmental plans, for projects in offshore wind, marine renewables, marine aggregates, coastal infrastructure and subsea cabling. Working closely with developers in the UK, Europe and the US, we provide informed and accurate advice and technical expertise, sharing our in-depth knowledge and understanding of the consenting process for nationally significant infrastructure projects (NSIPs) and offshore wind developments.





Photo of green hairstreak by Ben Jones

Who we are continued

Macro Works

Macro Works provide a full suite of Landscape & Visual Impact Assessment (LVIA) related tools and skills for a broad spectrum of energy, infrastructure and commercial developments. Macro Works' clients emanate from both the public and private sectors, in Ireland and abroad. Macro Works' expertise primarily covers the stages of development, from initial feasibility studies through to the completion of the planning process.

Macro Works constantly endeavour to establish it through constant R&D and innovation that takes advantage of the latest technologies. This push for constant advancement has ensured that Macro Works have remained at the forefront of LVIA services in Ireland for the past 20 years and will continue to do so into the future.

NASH Maritime

NASH Maritime offers innovative solutions that empower clients to manage shipping and navigation risk, optimise design and enable safe co-existence with other marine users.

NASH Maritime have worked in the maritime environment, understand the commercial value of risk-based decision-making and take an active role in driving new approaches to safety and cost reduction.



Woodrow

Woodrow are a long-standing and well-respected terrestrial ecology consultancy in Ireland. An expert team of ecologists work across a variety of specialist areas including habitats, birds, bats, terrestrial mammals and invertebrates, notably providing services to the renewables industry and recreation/greenways, quarries, roads and other development areas as well as providing specialist input in national species and habitat surveys. Woodrow joined the APEM Group in 2021, and by the end of 2022 had over 30 staff members working with clients and communities across Ireland. With a long and successful history of providing environmental training and education, Woodrow see inclusion and knowledge as the key to positive environmental change.



APPENDICES

APPENDIX A

Primary data based on accurate readings is shown in green and extrapolated data is shown in orange.

Electricity consumption APEM Group 2022

APEM Group sites	Total Energy Consumption (kwh)	Energy (kwh / Office FTE)
APEM Ltd - Cambridge	0	0
APEM Ltd - Chester	61,924	2,064.133333
APEM Ltd - Edinburgh	24,860	2,486
APEM Ltd - Letchworth	42,036	1,449.517241
APEM Ltd - Oxford	0	0
APEM Ltd - South Wales	33,593	4,798.948571
APEM Ltd - Southampton	4,407	881.4
APEM Ltd - Stockport HQ	86,031	5,376.925
APEM Ireland - Cork	16,186	1,348.843333
Woodrow - Sligo	9,666	276.1714286
Aquafact - Galway	79,552	4,972
GoBe - Glasgow	23,278	2,327.8
Gobe - Buckfastleigh, Devon	62,936	1,656.223158
APEM Ltd - Stockport Stores	24,498	24,498.3
APEM Ltd - Scottish Stores (Livingston)	20,995	NA
APEM Ltd - South Stores	11,187	NA
Total	285,217	

APEM Group ESG Impact Report 2022

APEM Group

APPENDIX B

Primary data based on accurate readings is shown in green, extrapolated data is shown in orange and a combination of both primary and extrapolated data is shown in yellow

Waste generated APEM Group 2022

APEM Group sites	Waste Generated (kg)
APEM Ltd - Cambridge	0
APEM Ltd - Chester	3,900
APEM Ltd - Edinburgh	1,300
APEM Ltd - Letchworth	2,940
APEM Ltd - Oxford	0
APEM Ltd - South Wales	618
APEM Ltd - Southampton	650
APEM Ltd - Stockport HQ	5,080
APEM Ireland - Cork	1,560
Woodrow - Sligo	4,550
Aquafact - Galway	2,080
GoBe - Glasgow	1,300
Gobe - Buckfastleigh, Devon	4,940
APEM Ltd - Stockport Stores	1,120
APEM Ltd - Scottish Stores (Livingston)	0
APEM Ltd - South Stores	392
Total	30,430

APPENDIX C

Primary data based on accurate readings is shown in green and extrapolated data is shown in orange

Water consumption APEM Group 2022

APEM Group sites	Total Water Consumption (m³)
APEM Ltd - Cambridge	0
APEM Ltd - Chester	324
APEM Ltd - Edinburgh	108
APEM Ltd - Letchworth	313.2
APEM Ltd - Oxford	0
APEM Ltd - South Wales	75.6
APEM Ltd - Southampton	54
APEM Ltd - Stockport HQ	227
APEM Ireland - Cork	129.6
Woodrow - Sligo	378
AQUAFACT - Galway	172.8
GoBe - Glasgow	108
Gobe - Buckfastleigh, Devon	410.4
APEM Ltd - Stockport Stores	91.64
APEM Ltd - Scottish Stores (Livingston)	0
APEM Ltd - South Stores	0
Total	2,392.24

APEM Group ESG Impact Report 2022

APEM Group



January
Photo of Cape petrels with views of South Orkney
Islands, by Casey de Geir



May
Photo of sperm whale by Ben Jones



September
Photo of fur seal, New Zealand by Ben Jones



Febuary
Photo of humpback whale with views of Coronation
Island, Antarctica by Casey De Geir



June
Photo of gannet by Billy Gardener



October
Photo of Cadover Bridge, Dartmoor by Ben Jones



March
Photo of waterfall, Brecon Beacons by Lorna Rowe



July
Photo of green hairstreak by Ben Jones



November
Photo of Salvin's albatross by Ben Jones



April
Photo of Cape starling by Miriam Carless



August
Photo of Emperor moth caterpillar, County
Roscommon by Philip Doddy



December
Photo of seal by Edward Rickard



