



# APEM consultancy ESG Impact Report

1<sup>st</sup> of January 2021 - 31<sup>st</sup> of December 2021



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# Introduction

## About this Report

As a responsible business, we are committed to transparent reporting. Accordingly, we are pleased to publish our first Environmental, Social and Corporate Governance (ESG) Impact Report, which describes our approach to and performance of our most material ESG issues for the financial year ending 31 December 2021. The scope of this report is limited to our UK operations. We will aim to issue these reports every year as part of our commitment to encouraging a positive ESG culture within our organisation and beyond.

This report has been compiled in accordance with our Corporate Governance Policies which are aligned to statutory regulations, industry standards, and national policies, agendas, and recommendations across all APEM Ltd (APEM) operational locations within the UK. Consistent with the broader national and international Sustainable Development Agenda, our Corporate Governance Policies underpin our ESG approach in accordance with the Climate Change Act (2008) and the 2030 Agenda for Sustainable Development adopted by all United Nations Member States in 2015 and underpinned by the Sustainable Development Goals (SDGs). All of our greenhouse gas (GHG) emissions data has been prepared in line with the statutory Streamlined Energy and Carbon Reporting (SECR) standards and calculated in line with the GHG Protocol.

# APEM: An Overview

We are innovators, problem solvers and learners. Our expert, technical, and support teams lead the way across multiple industries, providing independent environmental consultancy and expert advice using the latest technology combined with years of experience and a commitment to core scientific principles. Established in 1987, we are dedicated to providing high-quality solutions for our clients, delivering positive societal and environmental impacts.

We are a key service partner to companies spanning several sectors:



## Water

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.

### Our services

- **Aerial surveys to detect pipe leaks:** digital aerial surveys are a quick and cost-effective way to identify leakage from water pipes
- **Hydrology and water management:** our industry-leading expertise in water management, hydrology and hydrometry delivers cost-effective and robust solutions
- **Fish rescue, removal, relocation and stock assessment:** among the best-known fish rescue practitioners in the UK, providing fish rescue, removal, relocation and stock assessment services



## Renewables

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. APEM collaborates with clients worldwide, delivering robust data and guidance to support environmental government policies and renewable energy developers.

### Our services

- **Environmental Impact Assessments (EIAs):** baseline, ecological and impact studies across habitats, sites and species, including plankton, benthic invertebrates, fish, marine mammals, birds and wetlands
- **Marine mammal services:** our marine team offer the complete package of digital aerial and acoustic monitoring and surveying of marine mammals
- **Surveys for birds and marine mammals:** our best-practice approach to survey design for birds and marine mammals has been developed through years of practical experience, combined with the latest advancements in technology



## Power and utilities

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.

### Our services

- **Aerial surveys for land use mapping:** our remote sensing team use data from satellites and ultra-high resolution aerial surveys to develop models that map and quantify land use, condition and type
- **Topographic mapping using digital aerial surveys:** APEM uses specialist sensors mounted in purpose-designed survey aircraft to capture high-resolution data of the landscape

# APEM: An Overview continued



## Marine and ports

Nearly three-quarters of the earth's surface is classed as a marine environment, with complex ecosystems relying on its preservation.

### Our services

- **Marine field surveys:** delivering a full range of marine ecology services and specialist field, laboratory, and consultancy teams for all aspects of projects affecting aquatic habitats
- **Ballast water analysis and biofouling assessments:** alongside our partners, APEM has the skills and expertise to provide fully comprehensive sampling and testing of ballast water from vessels across the world
- **Marine consultancy:** providing marine ecology services for clients working in coastal, estuarine and offshore environments, supported by dedicated field teams and accredited laboratories



## Construction and development

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.

### Our services

- **Ecological clerk of works (ECoW):** the APEM team adopt the independent role of an ecological clerk of works to maintain environmental obligations during development and construction
- **Natural capital services:** APEM helps clients to use the natural capital approach to evaluate, protect and improve the natural environment through the projects they deliver
- **Supporting infrastructure and developments:** specialists in aerial surveys, geospatial data and consultancy for infrastructure and developments



## Transport

The demands on the land-based transport network are increasing, and APEM is ideally placed to support with geospatial and environmental planning support.

### Our services

- **Habitats regulations assessment (HRA):** supporting our clients with HRAs from baseline, ecological, and impact studies and modelling through to construction and post-project monitoring
- **Aerial surveys for linear asset and route mapping:** APEM are a global leader in aerial survey corridor mapping of natural and human-made linear features
- **Terrestrial ecology services:** our terrestrial ecologists collect and evaluate data, assess impacts, design ecological mitigation and provide reports and plans for our clients' projects



## Environmental

The world faces an environmental crisis. APEM is at the heart of creating solutions in partnership with our clients. Clients worldwide rely on us to help navigate complex legislative requirements, but more and more to proactively develop solutions to help our fragile environment.

### Our services

- **Managing algal blooms:** APEM is one of the leading algal bloom assessment and management providers
- **Marine nature conservation:** experienced marine scientists supporting regulatory and nature conservation bodies and NGOs with independent scientific advice on marine and coastal conservation
- **Water framework directive:** APEM are experts in delivering environmental requirements for proposed developments impacting water bodies in compliance with the water framework directive (WFD)

# Letter From Our CEO – Dr Adrian Williams



I am delighted to welcome you to our 2021 Sustainability Impact Report. Despite another challenging year, APEM has continued to adapt to the impacts of the pandemic. The team has continued to work with resilience to deliver high-quality services to our clients across the globe, who continue to rely on us to help them improve their environmental performance and comply with increased legislation.

## ESG has become such a key area of focus for all our stakeholders

- **Our clients** – who want to minimise their impact on the planet
- **Our staff** – who want to work for an ESG aware business that supports their views
- **Our shareholders** - We were delighted to welcome Westbridge Capital on board in 2019 to support APEM's growth ambitions. Westbridge is forward-thinking in the ESG sphere and wholeheartedly supports our sustainability ambitions as a company.
- **Our suppliers** – who are looking at innovative ways to solve the climate challenges we face and who want to work with clients who treat them as an equal partner
- **The communities we work within and recruit from** – it's been a challenging time through COVID, and many more people need support from those we can help

We are cognisant of the needs of all our stakeholders, but those of the environment sit at the heart of what we do. We are dedicated to providing high-quality solutions for our clients with a positive societal and environmental impact, and APEM's environmental impact is just as key an area of focus. We have engaged with specialist carbon

advisors to help us understand and quantify our carbon footprint spanning scope 1,2, and some scope 3 categories. The next phase of our carbon journey will be to further extend our scope 3 calculation and analysis, culminating in the commitment to a Net Zero date. Whilst minimising and reducing our carbon emissions is vital and our primary focus, it is inevitable that there will be residual carbon emissions. We have decided to offset this and become carbon neutral.

I am pleased that as part of creating this report and assessing our ESG goals, we have set ourselves nine key ESG objectives to be achieved within the next financial year, and I am looking forward to reporting on our progress in these critical areas next year.

We are proud of our inclusive and thriving culture. Every team member is valued and accountable for upholding our high standards, ethos and culture: Positive, enthusiastic and forward-thinking, we treat each other fairly, with respect and integrity, regardless of role or position. We are proud to live our values, collectively and individually.



**Integrity**

*We do the right thing*



**Quality**

*Quality in everything*



**People**

*We care*



**Forward thinking**

*We focus on the future*



**Positivity**

*We believe we can*



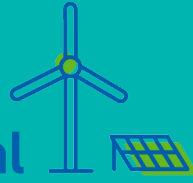
**Fairness**

*We champion equality*

**We hope you will find this report reflects your views as an APEM stakeholder, and we look forward – together with you – to building on this progress going forwards.**

# Sustainability Highlights of 2021

## We are carbon neutral




Electricity is procured from **renewable sources** at our Stockport HQ and Store

Achieved **ISO 14001** certification for our **Environmental Management System**



Aligned ourselves to **7** of the UN Sustainable Development Goals

Maintaining our commitment to diversity created a **Diversity, Equity and Inclusion** strategy ready for rollout in 2022

## Set ourselves **9 key** ESG objectives

where we feel we can make the most significant impact in the short term



# Engaging Our Stakeholders

We can only achieve our corporate objectives if we work in partnership with our stakeholders. This involves a two-way dialogue:

- What is important to you from an ESG perspective
- How can we help you achieve these aims

**Clients:** APEM recognises that our clients are our priority stakeholder group. As a company, we are dedicated to delivering high-quality environmental consultancy services through impactful projects that reflect evolving regulatory requirements and a focus on the environment. Our clients want to know that we protect and care for the environment as much as they do.

**Employees:** Our employees are the lifeblood of APEM. Our team proudly deliver innovative, efficient and high-quality consultancy services for our clients. They have chosen APEM to pursue their careers and develop their knowledge. Our employees want to be sure that APEM is delivering on its sustainability commitments internally in addition to helping our clients.

**Communities:** APEM recruits from communities across the UK, Ireland and also from around the world. Our clients are drawn from these same communities, and, as such, we are intricately connected. We recognise that we have the resources available to help communities in difficult times.

**Investors:** In 2019, WestBridge invested in APEM to support our growth ambitions. Our new partners provide capital as we expand our reach and capabilities, and, as experienced business owners, they offer sound advice and guidance within ESG, an area in which they are just as passionate as us.



# Contributing to the United Nations Sustainable Development Goals



The Sustainable Development Goals (SDGs), or global 'goals', are a collection of 17 interlinked targets 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 are positioned to have the most significant impact and will incorporate measurable targets into how our actions contribute toward fulfilling the Goals.



**GOAL 3:**  
Good Health and Well-Being

We are committed to pollution response and monitoring services, including wastewater treatment works spills, combined sewer overflow impacts, sediment runoff and chemical spills.

We will build on our Well-being Care Framework with initiatives such as our mental health first aid team and our employee assistance programme to ensure that we prioritise the physical and mental health of our workforce.



**GOAL 6:**  
Clean Water and Sanitation

As an aquatic consultancy, APEM is acutely aware of the importance of clean water. APEM aims to help water companies implement the Water Framework Directive. We conduct freshwater and marine ecological projects to deliver improved water quality.



**GOAL 9:**  
Industry, Innovation and Infrastructure

Environmental Impact Assessment services delivered by APEM work to assist the development of sustainable infrastructure – identifying significant environmental consequences of a proposed project.



**GOAL 11:**  
Sustainable Cities and Communities

APEM is committed to sustainable business practices which focus on protecting and restoring the economy and environment. APEM contributes to the economic well-being of the communities in which we operate by using local suppliers where appropriate and encourages employees to participate in events in their local communities, and provides matched funding within limits for charitable activities.



**GOAL 13:**  
Climate Action

We are committed to climate action. We will be working to reduce our operational greenhouse gas (GHG) emissions (Scope 1 & 2) by 45% by 2030 from a 2021 baseline. While we work to achieve this, we will purchase offset carbon credits to secure carbon neutrality.



**GOAL 14:**  
Life Below Water

Our marine and freshwater ecologists and scientists conduct biodiversity field studies, develop species and habitat management plans and ecological impact assessments.



**GOAL 15:**  
Life on Land

Our experts work to determine and establish measures to reduce potential impacts on terrestrial habitats.

# Leading with Integrity



# Leading with Integrity

Our Group Board sets the overall strategy, implemented and managed by a highly experienced Operational Board, working in unison to achieve our corporate objectives, conducting themselves with the highest levels of professionalism and ethical integrity. Our corporate governance programme creates the framework within which all staff operate. We believe in transparency and regular, open engagement with all stakeholders.

## Our Board of Directors

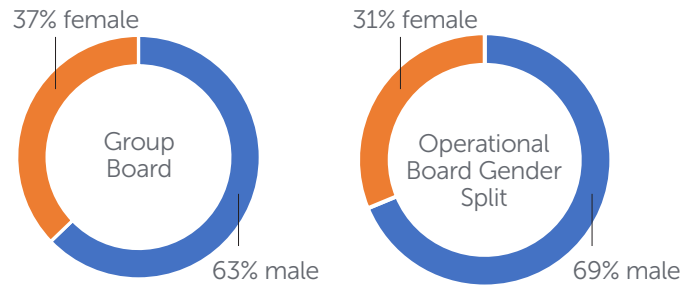
The Board comprises the CEO, Finance Director, Sales Director, our investors and a non-executive Chairman comprising five men and three women. The Board is responsible for setting the strategic direction of the business and ensuring its viability and long-term success. The Board establishes an annual strategic plan and meets monthly to track progress.

The Audit Committee meets annually to review the Audit Findings Report prepared by the Group's appointed auditor. In addition, the Remuneration Committee meets regularly to approve proposals regarding reward packages provided to

employees, a process carefully managed according to the delegation of authority matrix. In addition, our Staff Engagement Group and Safety Action Group meet monthly and quarterly, respectively.

## Operational Board

Our Operational Board is responsible for the efficient management of the day-to-day operations at APEM with a remit to deliver the strategic and management objectives of the company set by the Group. Key responsibilities include upholding legislative or regulatory obligations, reviewing compliance against internal systems and relevant external standards, prioritising action and directing resources to manage organisational risk, and monitoring APEM's Health and Safety performance.



# Leading with Integrity continued

## Environmental Committee

Our Sustainability Committee, known as the Environmental Committee, meets every two months and comprises representatives from across APEM. The committee is responsible for delivering our commitments set out in this FY21 report. The committee formally reports to the Board.

## Health and Safety

### Governance

#### Maintain 100% compliance in regulatory requirements for Health & Safety incident monitoring



Our Safety Action Group is integral to maintaining our excellent Health and Safety management record across APEM. Comprising nominated individuals from across the company, the Group meets quarterly to review Health and Safety statistics every month. We are audited annually by Achilles UVDB verify and are certified to category B2. APEM's Health and Safety management system is also certified by Avetta in accordance with the Avetta Assessed SSiP Safety Schemes in Procurement (SSiP) Approval Agreement.

All health and safety incidents are reported to the Health and Safety Manager through either the accident, near miss or hazard reporting form. The incident is reviewed, and if necessary, mitigating measures are quickly taken. We analyse the types and frequency of any events to ensure that we do not only react to single events as they occur but rather take a holistic view and regularly engage with staff to assess whether operational processes need to change.

All employees receive mandatory health and safety training as part of their onboarding induction. In addition, specific job roles require and receive more technical and job-specific training; for example, Field Scientists undergo water awareness, first aid and electric fishing training (applying an electric field into the water to safely incapacitate fish, rendering them easier to catch without harming them). A training database is maintained to record all necessary training undertaken – including the date of training expiry so that refresher training can occur.



## Monitoring and mitigating against a wide range of risk areas

We maintain a comprehensive Group Risk Register to prepare for the unexpected. The register comprises risks for the business covering financial, operational and reputational aspects. Updated monthly, the board and the operational board review the register every quarter.

Our HSEQ Risk Register comprises health and safety, environmental, project-related and data protection risk in addition to unique risks such as risks related to aerial surveys.

Our Business Continuity and Disaster Recovery Plan is in place and updated annually. At the onset of COVID-19, we updated this to cover pandemics. We conduct internal audits following ISO 9001, ISO 14001 and ISO/IEC 17025 certification standards and recommendations.

## Policy compliance

We have 22 policies spanning all of our activities and departments. Policies are published on our website, and our intranet and are updated within the year as required but formally reviewed twice a year. Policies are made available to staff and any changes communicated. Training is provided where required.

We ensure compliance with our policies by monitoring employee behaviour, providing additional training, and encouraging the reporting of non-conformances / tracking violations. Non-conformances (NC) are usually found during audits / inspections or routine procedure checks, e.g. Lab QA checks.

Regardless of the origin, the NC is reported to a competent or responsible person within the area or project concerned. Once the issue of NC has been raised, it will be discussed with the stakeholders involved to determine the exact circumstances. If the issue is classified as an NC, then it will be formally reported as such, and the matter will be thoroughly investigated to identify the root cause and corrective action put in place.

# Leading with Integrity continued

## Anti-Bribery and Corruption Governance



### Corporate Criminal Offence policy drafted and implemented

APEM believes strongly in the importance of operating with integrity, and this is something that runs through the very core of our company. We have a zero-tolerance policy toward acts of bribery and corruption. One of our commitments for the coming year is to construct and implement a Corporate Criminal Offence policy to make clear that we have in place effective systems to counter tax evasion.

have established quality objectives and procedures, including a Quality Procedures Manual. As part of their induction and ongoing training, all APEM employees are given the necessary resources to achieve our high standards. We have identified experienced staff members responsible for monitoring standards and leading continuous improvement.

We have secured appropriate accreditation and certification, evidencing our commitment to quality. APEM currently operates a Quality Management System that has gained BS EN ISO 9001:2015 certification; has UKAS accreditation to ISO 17025:2017 for laboratory methods, as specified in the UKAS schedule for laboratory number 4441.

## Whistleblowing

APEM has a whistleblowing policy that encourages staff to register issues they deem a risk to our operations and for matters that require the attention of the senior team. All concerns and complaints follow our CP-07050 Non-conformance and Corrective Action Procedure. We are pleased to report that there were no whistleblowing incidents reported in the reporting year.

## Business Management Systems

APEM is committed to achieving very high-quality standards and aims to ensure that the services we provide meet the needs of its customers and comply with any standards set by relevant external quality agencies. We ensure team members understand, are accountable for and deliver on these commitments. To this end, we



Lab no. 4441



Certificate No. GB2002027



Certificate Number 20220

# Protecting our Digital Ecosystem

## Data Privacy

We understand the importance of collecting and processing personal data fairly and transparently in keeping with the Data Protection Act 2018 and General Data Protection Regulations (GDPR). Our Data Protection team are in place to manage and implement our data protection policy and strategy and to ensure that data risk is documented on the APEM risk register. We manage that risk according to an ongoing improvement cycle subject to Board-level scrutiny. Occasionally, clients may request data access permissions be granted only to specified personnel. We ensure that strict data handling requirements are implemented in these instances.

APEM takes responsibility for the actions of our employees in how they handle all data received. We are all acutely aware of the responsibility to ensure it is kept safe. Our Data Breach Procedure is available on our company intranet, and we have a documented, staged approach to any incident with end-users able to log data breaches or concerns via our intranet site, leading to a quick escalation. We have had no data breach incidents this reporting year.

## Cybersecurity

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 Cyber Essentials certified, a validation of the high standards we operate at.

We regularly send communications out across the organisation relating to security awareness. In addition, security testing takes place annually with penetration testing and phishing attack scenarios to ensure employees remain vigilant.



# Supply Chain Management

## Social



Perform unannounced audits for our most high-risk suppliers

## Social



Work with suppliers to quantify their operational emissions

It is critical that we only deal with an approved supplier list, ensuring that all suppliers have been carefully vetted. We maintain an approved supplier database of over 244 suppliers. Over half of our suppliers have supported APEM over a long period.

All suppliers undergo a vetting process where they are required to submit company information, financial standing, any certifications, management systems, insurance, health and safety statistics, and evidence of GDPR compliance. Suppliers also need to confirm that they have policies and procedures that go beyond the core business functions. We are an ESG aware, ethical business and expect our suppliers to be on the same page as us, upholding

human rights, treating their staff well, supporting local communities, and fighting climate change.

Our suppliers are reviewed annually and are subject to announced audits. Critical suppliers undergo field audits. Where required, we engage with external specialists to help audit certain suppliers. One of our key objectives for the coming year is to perform unannounced audits in a proportion of audits.

We are doing all we can to calculate and reduce our carbon footprint. Upstream and downstream emissions outside our core operational emissions likely account for over 80% of our overall emissions. As such, it's key for us to engage with our supply chain to understand their carbon emissions. During the next year, we will engage with our suppliers to quantify their operational emissions. To achieve this commitment, we will be incorporating key requirements into our supplier vetting process, whereby suppliers will be asked to submit their scope 1 and 2 emissions.

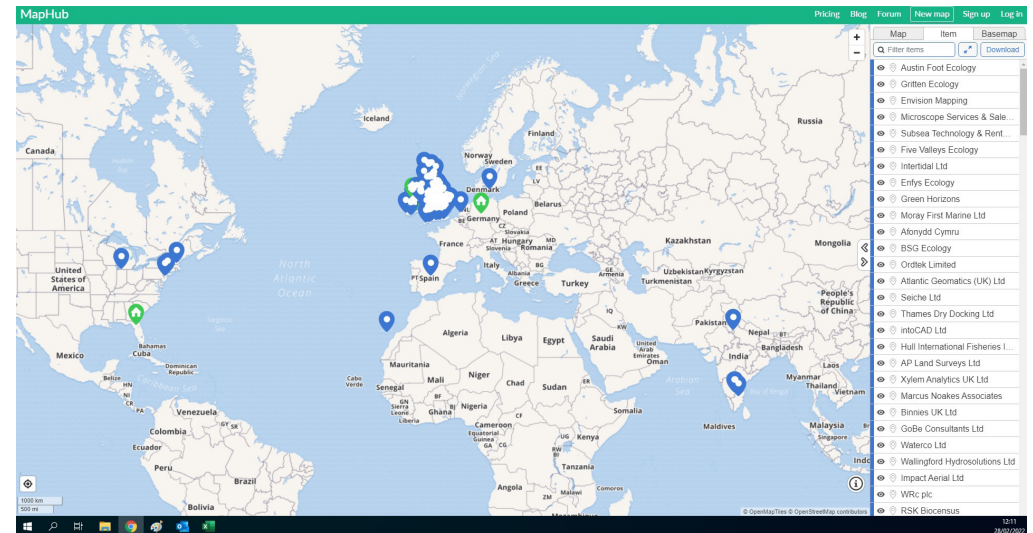
We are developing a Virtual Suppliers Map that visualises all our suppliers' locations

around the world, allowing our consultants the opportunity to select contractors who are local to a particular project. This virtual map went live this year.

We are global services company with clients spanning many countries across the world. As such, we need partner organisations in many countries across the world. Our Virtual Suppliers Map will help identify the right specialist, pre-vetted partner within the

required location, meaning our consultants can quickly mobilise requirements and limit any carbon emissions that would have resulted from using non-local consultants who would require extensive travel.

## Virtual Suppliers Map



# Protecting Our Precious Planet



# Protecting Our Precious Planet

## Spotlight: Harnessing innovation

APEM has developed several innovative services and approaches to tackle the issues faced by our clients. Our approach is to harness our knowledge and experience of these challenges and continually evolve, finding new and innovative solutions to benefit our clients.

Examples of ecological tools include:

- Hydro-ecological tools for water resource management
- The development of ecological indicators to support existing WFD (Water Framework Directive) classification tools
- Customised field survey methods to support the catchment-based approach
- Biotic indices such as CPET (Chironomid Pupal Exuviae Technique)
- Remote sensing tools for hydro-morphological assessments, supported by our in-house aerial survey and spatial data analysis department

The technological advantage that APEM's aerial survey and remote sensing expertise can bring to any work package is built on our ability to provide cost-effective, quality-controlled surveys for catchment or landscape-scale projects and linear asset management. For example, we undertake digital aerial surveys of birds and marine mammals, sediment and pollution investigations, pipeline surveys (detection and leakage), thermal imaging, asset management using 3D terrain, land use mapping and topographical mapping. We provide the full range of remote sensing services with state-of-the-art equipment, from planning and flying aerial surveys to image analysis, interpretation, and reporting. Most of our technical capabilities have resulted from self-funded research and development innovations, breaking new ground in remote sensing applications, thus making us world leaders in digital image capture of offshore wildlife.



# Case Study: Reviewing a biologically sensitive area for the Marine Institute

APEM delivered a review of the basis and effectiveness of a Biologically Sensitive Area (BSA) off Ireland's south and west coasts. This report was commissioned in preparation for the 2022 Common Fisheries Policy functionality review by the European Council and Parliament.

The BSA is an area off the southwest of Ireland established by the European Union (EU). As part of a broader effort to limit regulation for fishing vessels targeting demersal scallop and crab fisheries, it also set a specific fishing effort regime within the area. The EU Regulation sets the maximum annual fishing effort across various fishing grounds for each Member State, including Ireland.



## Aim

The review aimed to conduct a desk-based study to set out the biological basis for the BSA. It would look at the effectiveness of limitations within the BSA for protecting the ecosystem in the area and update on any changes to biological processes. We were also tasked with identifying gaps in current knowledge and management approaches and proposing mitigation options if required.

## Our Approach

Our marine specialists used various approaches to deliver the objectives of this project. APEM completed a literature review focusing on the BSA area. An analysis of the key fisheries in the area and their stock status was undertaken. We assessed fishing effort concerning the imposed fishing effort management limits. Carrying out spatial mapping was also a vital element of this project because it meant the BSA could be visualised in relation to the bigger picture regarding the conditions of the site and the presence of species and features. Mapping fisheries in the BSA and the wider Irish Exclusive Economic Zone (EEZ) was provided, together with maps of the nursery and spawning areas using open-source ICES data.

## The Outcome

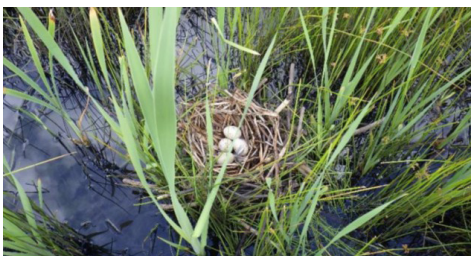
We produced a detailed report with our findings on the purpose of the BSA and the effectiveness of the associated fisheries management, particularly fishing effort management. This included an extensive series of maps, graphs and tables presenting a diverse range of information that would be instrumental in helping the Marine Institute to understand the site better.

Some of the information the report presented included trends in the sustainability of captured species within the area. In addition, apparent trends in length-frequency distributions within Irish commercial catches of important species and protected, endangered and threatened (PET) elasmobranchs were also examined. This information enabled the client to consider the need for management measures to follow in the long term for protecting and restoring sensitive and protected species.



# Case Study: Supporting the development of the Lisvane and Llanishen reservoirs

Dŵr Cymru Welsh Water (DCWW) commissioned APEM to support the development and management of the site at the Llanishen and Lisvane reservoirs.



## Aim

In 2016 Dŵr Cymru Cyfyngedig – trading as Dŵr Cymru Welsh Water (DCWW) – secured the 999-year lease for Llanishen and Lisvane reservoirs and the surrounding land. The acquisition aimed to safeguard and enhance the reservoirs for future generations.

Essential maintenance and safety works started in June 2016 to bring the reservoirs up to modern operating standards. In the meantime, DCWW has undertaken an extensive community consultation with local people on the kinds of leisure and recreational activities that could be offered once remediation works are complete.

## Our Approach

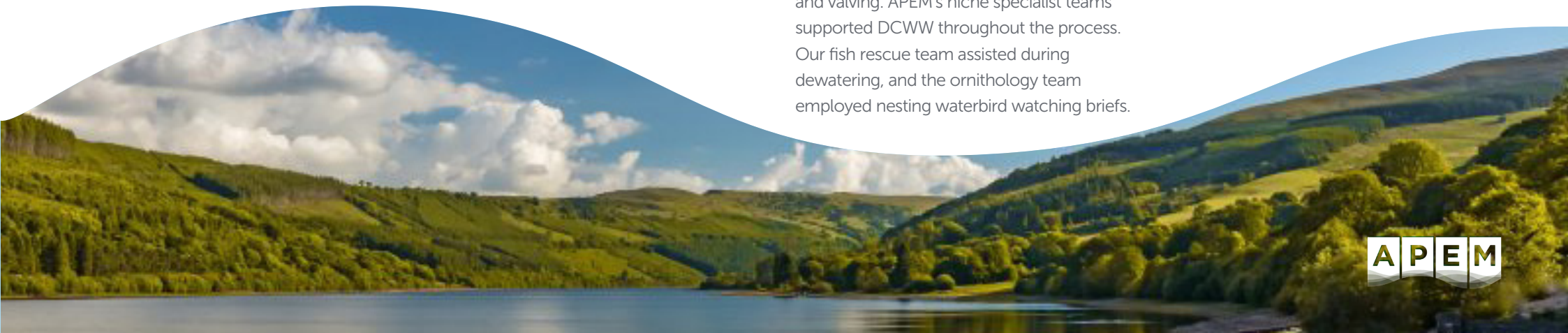
The development required a careful balancing of visitors’ needs with those of an operational reservoir. DCWW has a duty to protect, maintain and, where possible, enhance the site’s biodiversity. Much of the site is designated as Sites of Special Scientific Interest (SSSI) or Sites of Importance for Nature Conservation (SINC) due to the unique flora and fauna, requiring a specialist approach.

The maintenance work involved vegetation clearance, dam wall repairs, replacement of and repairs to valves and pipes, perimeter fencing installation, and a new management regime for the vegetation on the reservoir embankments under the SSSI designation. In 2017, the Llanishen reservoir was fully drained, enabling a full inspection and replacement of critical supply pipelines and valving. APEM’s niche specialist teams supported DCWW throughout the process. Our fish rescue team assisted during dewatering, and the ornithology team employed nesting waterbird watching briefs.

## The Outcome

Since the site was acquired, APEM has delivered a comprehensive suite of surveys and reporting to support DCWW’s ambitious aims for Llanishen and Lisvane reservoirs.

The delivery of these services ensured that DCWW has a detailed understanding of the conditions, flora, and fauna present at this critical site. This will inform future management and planning applications for the visitor hub development. We continue to work closely with DCWW and always be on hand with our locally-based field teams to support the delivery of this ambitious and exciting project.



# Case Study: Ecological Clerk of Works for Southern Water silt removal

Southern Water appointed APEM to provide environmental monitoring and Ecological Clerk of Works (ECoW) services at the Smallbridge Pumping Station site in Kent.

## Aim

This project aimed to allow new screens to be set up at the river intake on the River Teise without causing damage to fish or affecting water quality. To enable the installation of screens, silt needed to be removed from this river section.

## Our Approach

Juvenile lamprey, a protected species, lived within the sediment at the river intake. This species live in burrows in the riverbed during their larval stage. Any desilting work would likely kill the lamprey. A specialist team from APEM worked to capture and relocate lamprey from in front of the intake screens to prevent this. The Beasley Christopher team then carried out the desilting work. APEM provided an accredited Ecological Clerk of Works to oversee activities, ensuring no impact on water quality in the River Teise.

Acting as ECoW, APEM's role was to monitor in-river conditions. This focused on dissolved oxygen and ammonia concentrations in and around the intake area during the silt removal operation.

APEM is experienced at supervising desilting operations, having undertaken them for water companies on many sites across the UK. We have found that fine sediment deposits may contain high quantities of decomposing leaves that can produce high ammonia concentrations. Ammonia is highly toxic to aquatic life and is released when silt is disturbed into the water. This can also lower the concentration of oxygen dissolved in the water.

The river intake area at Smallbridge was enclosed by a PVC silt curtain with chain ballast during the operation to avoid any significant water discolouration or pollution in the river downstream.

## The Outcome

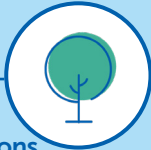
The silt removal work did not impact the water quality in the river, and it was determined that all of the values for ammonia were also at very low levels and indicated no adverse effect on water quality. This project demonstrated the importance of using specialist contractors with experience in desilting operations to avoid causing problems in rivers such as pollution and harm to wildlife.



# Our Carbon Footprint

## Our journey to Net Zero

### Environment



Reduce our operational greenhouse gas (GHG) emissions (Scope 1 & 2) 45% by 2030 from a 2021 baseline

### Environment



Achieve carbon neutrality across our operations (Scope 1, 2 and partial scope 3 emissions)

### Environment



Scope 3 baseline calculations

Carbon emissions are the leading cause of global warming and hence climate change. Every individual, business, and organisation has 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. Recognising how important this is, we have calculated our carbon emissions since 2018.



## Carbon Emissions Table FY21

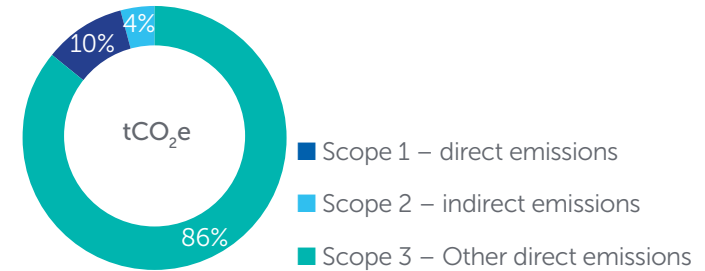
Our carbon footprint includes scope 1, 2 and scope 3 emissions.

- Scope 1 – Carbon emitted from company vehicles\*
- Scope 2 – Carbon emitted from building electricity usage
- Scope 3 – Carbon emitted from our subcontracted aircraft\*\*, 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

01/01/21-31/12/21	tCO <sub>2</sub> e	%
Scope 1 – Direct emissions	137.5	10%
Scope 2 – Indirect electricity emissions	60.7	4%
Scope 3 – Other indirect emissions	1,176.8	86%
<b>Total</b>	<b>1,375.1</b>	<b>100%</b>

\*Data for petrol and diesel fuel could not be distinguished between owned/leased vehicles and hired cars from provider. For this assessment, the data has been assigned to scope 1 as mobile sources.

\*\* 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.



We calculate scope 1 and 2 GHG emissions and some scope 3 emissions for our company operations by gathering primary data from our sites across the UK. We have set ourselves an interim target to reduce our operational greenhouse gas (GHG) emissions (Scope 1 & 2) by 45% by 2030 from a 2021 baseline.

In addition, we are looking to add additional scope 3 categories to our carbon footprint calculations and will set a net zero date once we feel we have a comprehensive footprint calculation. We have engaged with an external specialist carbon consultancy to:

- Advise on what carbon categories we should include in our footprint
- Calculate our carbon emissions
- Offset some of the emissions

We have already offset 300 tCO<sub>2</sub>e to cover Scope 1 and 2 emissions and will look to offset our total carbon footprint once our carbon data is third party verified.

# Energy and Water Consumption

## Energy and water

### Energy Table FY21

01/01/21-31/12/21	kWh	tCO <sub>2</sub> e
Total electricity	54,706	60.7
<b>Total</b>	<b>54,706</b>	<b>60.7</b>

### Water Table 2021

01/01/21-31/12/21	m <sup>3</sup>	tCO <sub>2</sub> e
Water usage (HQ and Stores only)	80,556.8	12
<b>Total</b>	<b>80,556.8</b>	<b>12</b>

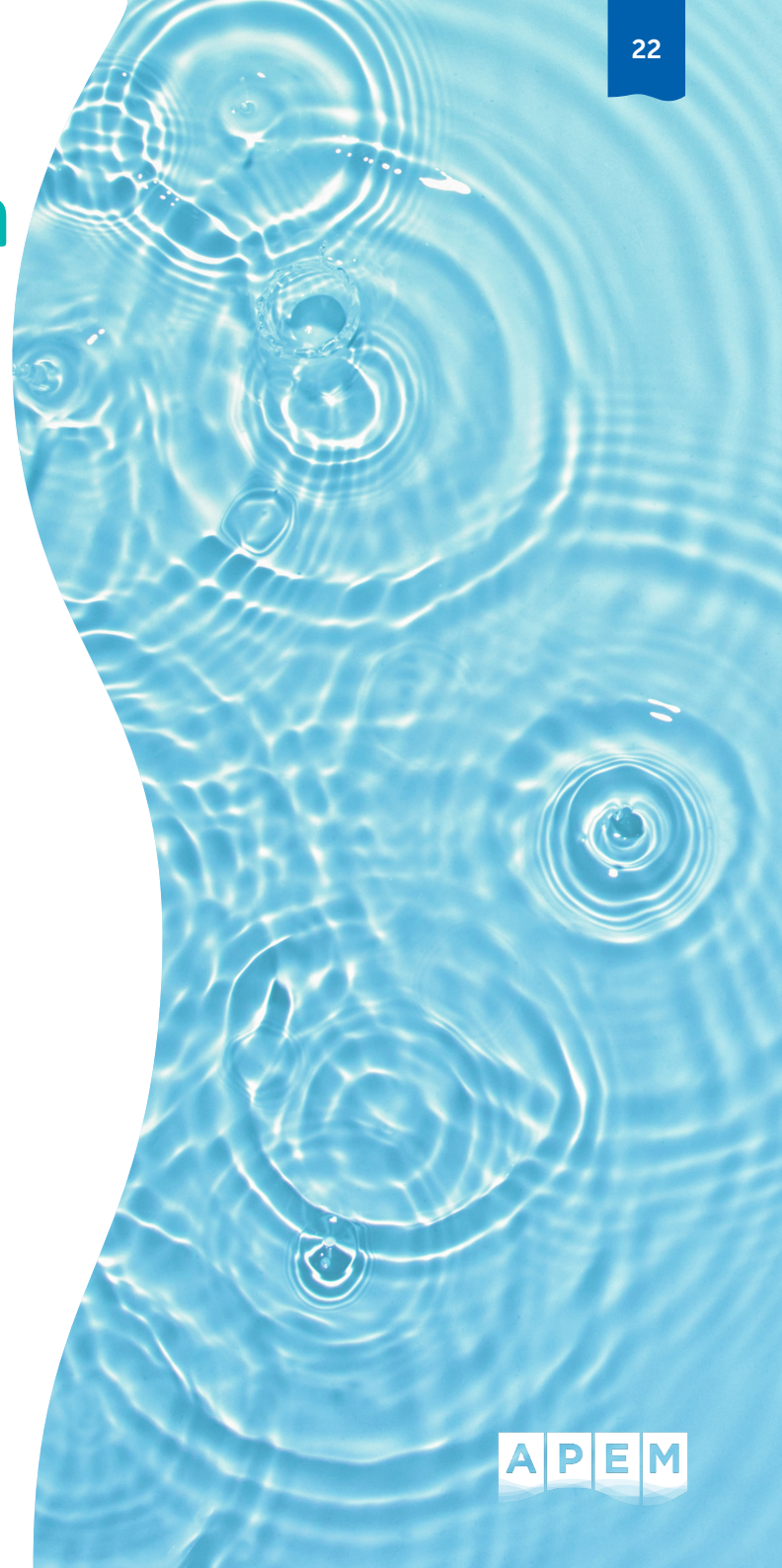
There are multiple ways that we impact our planet through our direct and indirect operations. For example, we procure energy to power our offices, providing power, lighting, heating and air conditioning. APEM are committed to addressing climate change and supporting the shift to a cleaner, low-carbon economy in the UK. Within energy, that means limiting how much energy we consume and procuring our energy from renewable sources.

We have procured our electricity from renewable sources, where we are responsible for electricity procurement. We do not currently have energy data for the remainder of our UK properties. We will be engaging with

our landlords in FY22 to encourage renewable energy procurement, estimate energy usage from these sites, and incorporate this into future carbon calculations.

We conducted an energy survey in 2019, pre-pandemic, with office managers or environmental champions surveying their offices to complete environmental audit checklists. This method helped identify a need for LED lighting at the Letchworth site. We plan to conduct further energy surveys once our employees are fully back in the office post-pandemic and aim to implement any suggestions. We carry out regular communication campaigns across our workforce to encourage energy savings within our offices and whilst working from home, with material circulated by our energy champion, including posters.

Water usage in the above table only reflects our Stockport HQ and Stores, given we do not have access to water usage within serviced offices. However, as a predominantly aquatic consultancy, 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.



# Responsible Waste Management

## Waste

### Waste Composition Table FY21

01/01/21-31/12/21	Waste (Tonnes)	tCO <sub>2</sub> e
General Waste	10.12	4.7
<b>Total</b>	<b>10.12</b>	<b>4.7</b>

Waste management accounts for around 4% of total GHG emissions in the UK, with most emissions released from landfill sites<sup>1</sup>. We recognise that responsible organisations follow the steps of the waste hierarchy – Reduce, Reuse, and Recycle and set annual waste targets in terms of waste generated, recycling % and % of waste diverted to landfill.

Our waste data is not yet complete, given that we only have information for our Stockport HQ, our Stockport Stores, Chester and our South Wales Office. Given the ongoing pandemic and the fact that our employees have been working from home for a significant proportion of FY21, our figures are unlikely to accurately represent our true waste position. It is difficult to collate data from serviced offices, and our efforts within these will be to maximise recycling and do our best

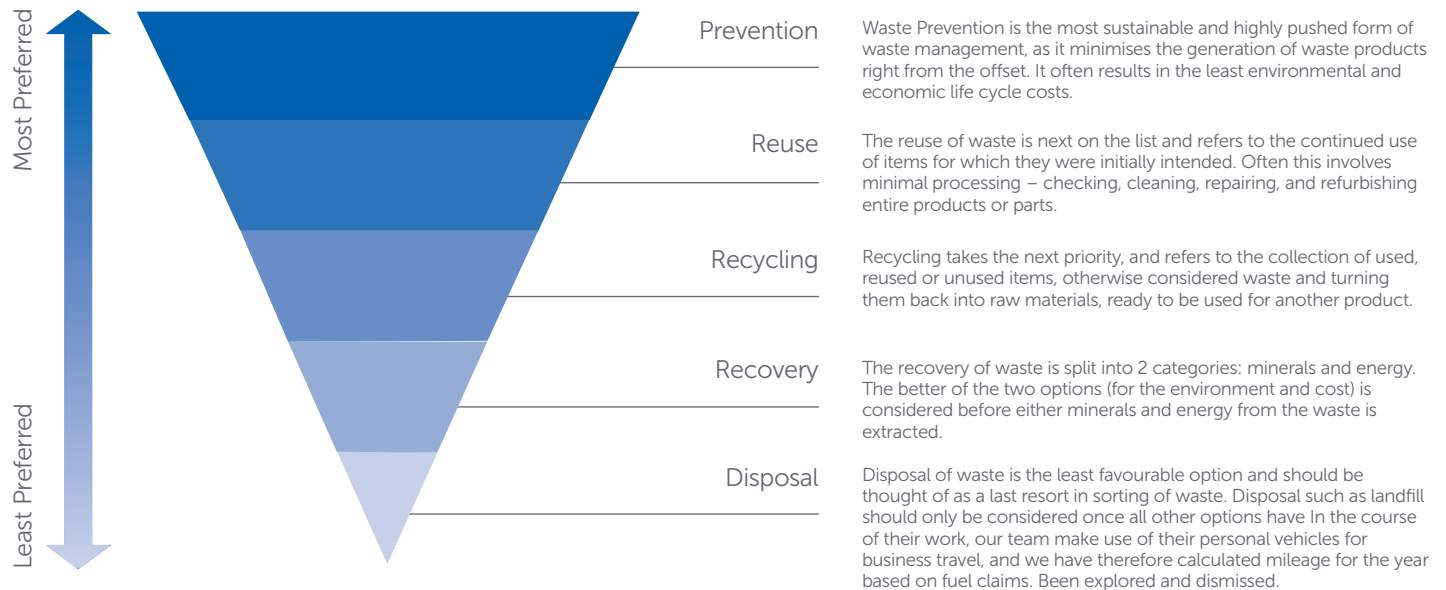
to ensure that most of the waste leaves our offices destined for recycling. We will nonetheless be engaging with our landlords to understand how our waste is processed.

For the waste under our control and for which we have data, our focus is to align ourselves with the waste hierarchy and limit waste to landfill, maximising our recycling rates. We will 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.

<sup>1</sup><https://www.gov.uk/government/publications/the-uks-nationally-determined-contribution-communication-to-the-unfccc>

### Waste hierarchy



# Sustainable Transport

## Transport

### Transport Data Table FY21

01/01/21-31/12/21	Miles	tCO <sub>2</sub> e
Owned and hired cars – Unknown fuel	4739.24	137.5
<b>Total</b>	<b>4739.24</b>	<b>137.5</b>

01/01/21-31/12/21	Miles	tCO <sub>2</sub> e
Employee commute	161580.8	44.6
<b>Total</b>	<b>161,580.8</b>	<b>44.6</b>

01/01/21-31/12/21	Number of staff	tCO <sub>2</sub> e
Home-working	174	44.6
<b>Total</b>	<b>174</b>	<b>44.6</b>

01/01/21-31/12/21	Number of devices	tCO <sub>2</sub> e
Capital goods – Laptops	190	45.6
Capital goods – Computers	29	8.7
Capital goods – Monitors	189	62.4
<b>Total</b>	<b>408</b>	<b>116.7</b>

01/01/21-31/12/21	Miles	tCO <sub>2</sub> e
Business transport – Train	16,752.55	0.594548
Business transport – Tube	44,294	0.0012318161
Business transport – Taxi	176.47	0.026251677
Business transport – Bus	26.67	0.0027275409
Business transport – aircraft passenger domestic flights	4,910.64	1.2073791
Business transport – aircraft passenger short-haul flights	6,542.66	1.0044938
Business transport – aircraft passenger long-haul flights	41,858.78	8.0825109
Business transport – personal car – unknown fuel	54,215.37	14.953141
<b>Total</b>	<b>168,777.14</b>	<b>25.87228383</b>

01/01/21-31/12/21	Litres	tCO <sub>2</sub> e
Subcontracted aircraft: aviation turbine fuel, including Well To Tank emissions (WTT) and AIF of 1.4	197,353	807.2
<b>Total</b>	<b>197,353</b>	<b>807.2</b>

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 UK 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 government's Road to Zero transport strategy includes the ambition that by 2050 almost every car and van will be zero-emission. As we come to terms with our collective obligation to reduce emissions urgently, we must also take responsibility for our contributions at APEM, with fleet being a significant component of this.

We have six leased vehicles that run on diesel. Whilst this is small, we recognise that we should explore the transition to EV vehicles. We have begun this process during 2021 and will continue in 2022; however, there are still numerous challenges involved in this transition to EV, mostly centred around the logistics of charging operations for a service-based business.

The fuel from our subcontracted aircraft has made the most significant contribution to our scope 3 footprint, coming in at 807.2 tCO<sub>2</sub>e, followed by mileage for our owned and hired vehicles at 137.5 tCO<sub>2</sub>e.

Our employee commute in personal vehicles comes in at 44.6 tCO<sub>2</sub>e. To incentivise our employees to transition to electric vehicles, we will aim to install EV charging units at our Stockport HQ in FY22. We will also be offering EV incentives in our employee benefits package.

# A Thriving Team



# A Thriving Team

## Social



### Produce Pay Gap reports annually

Our APEM employees sit at the heart of our business. We take a holistic approach to ensure our team thrives, and we foster commitment and excellence in our staff by encouraging the active involvement of our people at all levels.

Our employees are encouraged to strive continually for improvements in all aspects of the business and put forward their ideas for ways our services and operations can be improved. Only from such commitment can we hope to secure and deliver our primary objective of providing high-quality consultancy services to our clients and retain our position as their supplier of choice.

We are incredibly proud to have received the Investors in People accreditation – confirmation that APEM has been recognised as excellent when it comes to our performance at leading, supporting and improving our people compared to others in our industry.

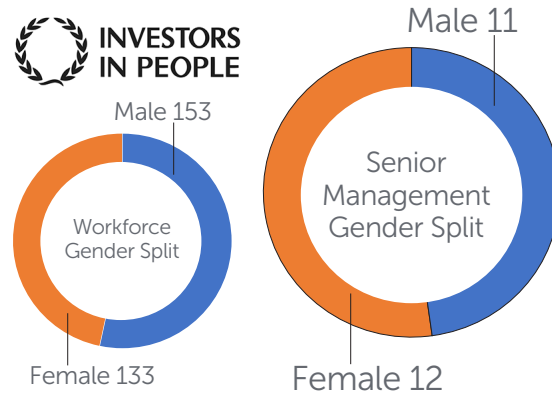
Given our growth trajectory, we have now reached the threshold where we are required

to calculate and report on our gender pay gap, which we will do in 2023.

## Our people

As of 31 November 2021, we have a total workforce of 286 employees representing multiple nationalities worldwide.

We want to improve the data that we capture on the demographics of our existing workforce so that we can better measure our success and celebrate our diversity. We will soon be upgrading our HR management system to enable more granular data capture, including age, background, sex, gender identity, sexual orientation, ethnic origin, nationality, country of origin, religion and disability.



# Safety, Health & Well-being

## Responding to the pandemic

Whilst it has been another year of change and uncertainty, our team at APEM has shown remarkable resilience. Throughout the year, we prioritised their safety and well-being, listened to concerns, sought guidance from experts, and ensured we acted with their welfare in mind.

Employees worked from home where possible, resulting in some of our offices being temporarily closed. We produced COVID-19 risk assessments for field surveys, aerial surveys, and our offices and laboratories. For open offices, we implemented increased frequency of cleaning, appointed COVID-19 marshals to oversee mitigation measures and encouraged staff to conduct lateral flow testing regularly before arrival in the office.

## Connecting with our teams

Staying connected to our teams is central to us at APEM, facilitating collaborative learning. We endeavour to have ongoing conversations about what matters to our people because we know that our

people will deliver their best work when empowered to contribute to shaping APEM.

Our employee intranet, The Source, is an important vehicle for internal communications and connecting our people. It's a space where we promote essential information such as our policies, training modules, employee benefits and content that supports our well-being objectives.

Each year, we conduct an anonymous employee engagement survey. The results are shared with our Group Board and Operations Board and then ultimately conveyed to teams through a comprehensive overview with actions put in place to drive improvement.

## Health and Well-being

We want our people to feel that they belong to the team and that their well-being is prioritised. Not only have we been certified as a Mental Health Aware workplace by MHFA (Mental Health First Aid) England, but we also have a Care Framework in place as the foundation upon which we evaluate the health and well-being of our staff and provide resources to deliver support to achieve our aims in this area.

Our Staff Engagement Group meets every month and takes a close interest in the well-being of the APEM team. Their input, suggestions and advice is greatly valued.

Our Employee Assistance Programme (EAP) is designed to offer free and confidential support to those who may be experiencing personal difficulties. Our mental health first aiders are a vital resource, there to seek out those that need help and to be a helping, confidential hand in times of need. In addition, our people can access well-being content and initiatives through our intranet portal, where we also reinforce the importance of positive mental health by allocating dedicated well-being days so that people can rest and recharge. We offer a series of benefits to support physical health, including private medical, permanent health insurance, life assurance, death in service protection and a health cash plan. We understand that a 9-5 does not necessarily suit everyone and that our hybrid approach means that our people can prioritise family commitments as much as work.



# Diversity and Inclusion

Given that our team comprises many nationalities, we recognise the importance of diversity and inclusion and work hard to create a workplace culture where everyone feels that they belong.

Our Equal Opportunities Policy sets out our position on non-discrimination for recruitment, job advertisement and job promotion. To support this stance, we ensure that staff are well trained on the application of this policy, as well as undergoing unconscious bias training so that our people can be sure that they will be treated fairly.

Looking forward, we are putting in place an action plan and strategy on diversity and inclusion that is due to be rolled out in 2022.



# Spotlight – Meet Our Marine Scientist, Hope Stevenson

## Ever since I was little,

I have loved the natural environment (it's hard not to when you are from Scotland), from chasing my brothers with insects in the garden to combing the beach and playing in the ocean with our dogs.



**My love for animals** and a very healthy curiosity about everything has always driven my decisions. At school, I found that science gave direction to that curiosity and, after ditching the idea of being an artist, along came marine science. That life decision has taken me to many amazing places, as I have studied marine science from the west coast of Scotland to the Arctic and back again.

**My university,** The Scottish Association for Marine Science (SAMS), offered the amazing opportunity to participate in a semester abroad in Longyearbyen, Svalbard, an opportunity I didn't need to think about. It provided a unique insight into science and life on the edge of civilisation

because when a rifle is a common accessory when leaving town, you know you're in the wild.

## After my undergraduate degree

I chose an international master's in marine science at Gothenburg University in Sweden, another excellent life choice if I do say so myself, however, the arrival of COVID did present one or two travel issues.

**In the future** I am hoping to undertake a PhD, however, I wanted to take a break from academic life and achieve some practical work experience in my chosen profession whilst continuing to learn.

**Through my education** I enjoyed taking a broad range of classes and not keeping to one specific area of marine science, experiencing each discipline, as I wanted to gain a greater understanding of cycles and interactions that occur in the marine environment and between species. However, when it comes to dissertations you need to get specific and both of mine related to phytoplankton.

**My first dissertation** looked at a sea-ice diatom which produced a chemical marker that could be used to track its organic carbon through the Arctic ecosystem, I tested to see how long the chemical could be detected in a primary consumer. My master's dissertation focused on a toxic and bioluminescent dinoflagellate and whether it could increase the levels of toxin and bioluminescence when exposed to a chemical produced by copepods.

**I love a challenge,** learning and filling the gaps in my knowledge and that is why APEM seemed like such a great fit for my first job after university. The job allows me to expand my taxonomic skills, an area that I had only briefly covered in the past and is such a fun, challenging skill that can only be improved with practice and time.

## So, what is working at APEM like... WORMS!

Many interesting little worms, and other ocean creepy crawlies. I am still new to APEM having only started in January as a marine laboratory scientist, but I am enjoying the job and learning lots of new

information. It is a highly collaborative workplace; therefore, it is a great atmosphere to work in.

**In my spare time,** I like doing what everyone else seems to like, hanging out with friends, watching movies / TV shows, reading, and having some downtime. I enjoy cooking and baking mainly because of helping mum over the years, she taught me well. I have never really been into sports as a highly uncoordinated person, any sport that involves using a racket or bat doesn't go well. However, I enjoy swimming and I am always trying to be more active with different classes and things. I have my diving certification and love the thrill and wonder of diving but unfortunately, I have not been able to enjoy that hobby to its fullest yet, but I plan to.

# Learning and Growth

We want our people to grow and expand their careers with APEM; we provide in-house training, coaching and development opportunities so that individuals can work towards realising their full potential. Our annual review process, "Be My Best", encourages people to set career goals and KPIs and work with their line managers to understand the training opportunities that would reinforce or enhance learning and growth.

Our iHASCO portal, which has been established for several years, contains a plethora of video courses offering optional and mandatory training – such as the environmental course we recently launched – rewarding those completing with an assessment and certificate.

Not all training is best done virtually, with some health and safety, risk assessment training, and laboratory training such as COSHH (Control of Substances Hazardous to Health) all conducted in a face-to-face setting.

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# Community Outreach



# Community Outreach

## Social to do list



### Develop Community Investment plan

Much of the work we do is about ensuring the environmental well-being of the world around us. However, beyond our work in nature, we believe in the importance of community outreach to support local charities and organisations linked to our business objectives.

For example, before the pandemic, we provided some office space to be used as a head office for staff from the Mersey Rivers Trust, which proactively engages with local communities, landowners, regulators, and other stakeholders to help clean up the rivers in the Mersey catchment area.

Again, before the pandemic, we worked with the Seashell Trust, which supports children and young people with complex learning difficulties, disabilities, and additional communication needs across the UK. We offered placements to young adults to undertake work experience in our office every Friday. We hope to resume this partnership post-pandemic.



This year, given that we could not host people in our offices, we have conducted some virtual webinars that are free to attend by anyone interested in topics such as invasive species and marine work.

We have continued with our policy to match charity donations for money raised by our employees throughout the year. This year, we raised £3,000 and donated to three environmental charities from around the UK.

In the future, we plan to introduce the APEM volunteering day – an idea mooted by our Staff Engagement Group – where individuals will be given a day to volunteer

in the local community, completing beach-clean ups or tree planting events in partnership with the trusts and charities we work with.

Our objective for our community work this year is to formally introduce a Community Investment Plan – monitoring input and output for the projects that we invest in across the business.





Woven into company operational strategy, ESG builds upon the idea that making a positive effect on society should be as important to a business as financial success.

As part of our desire to ensure we adopt best practice within ESG, APEM engaged Sustainable Advantage ("SA"), a leading ESG consultancy, to score and evaluate us across 61 ESG areas. Each area is graded 0-4. We were thrilled to score "ESG Excellent" with a score of 61% and fall into the top 10% of all UK companies assessed.

An ESG action plan has been created following the scoring process for each area and disseminated to the individual departments under the overall management of the ESG Committee. SA has also set target scores for 2022, aligned to the improvement actions. This process will ensure continued improvement during 2022. We are tracking our progress year on year.

We look forward to 2022 with optimism and look forward to sharing the successes of this year with you in next year's ESG report.





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