



DORSET & WILTSHIRE
FIRE AND RESCUE

Environmental Sustainability Management Plan

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1 EXECUTIVE SUMMARY

1.1 Executive Summary

Dorset and Wiltshire Fire and Rescue Service [DWFRS] is expected to lead by example; we have Sustainability and Environmental Framework and now this plan which outlines how the DWFRS will embrace new ways of working in order to continue to improve its approach to carbon reduction and lead the way for good sustainable practices.

This plan aligns perfectly with the Asset Management Policy Statement objective:

‘Consider carbon reduction and environmental sustainability within our capital programme and asset management’

And equally with DWFRS Service Delivery Plan:

‘Encourage Sustainability in General’

‘Priority 2 Protecting you and the Environment from harm’

‘Priority 4 – Making every penny count’

DWFRS is working more closely and innovatively with public sector partners by sharing buildings and services with Wiltshire Council, Wiltshire Police, SWAST and Dorset Police to further maximise efficiency and cut costs, leading to reductions in our collective environmental impact. These challenging financial times call for new approaches and our ambitious target places DWFRS firmly at the forefront of the fight against climate change.

2 – INTRODUCTION AND BACKGROUND

2.1 Introduction

DWFRS delivers a range of prevention, protection and response services to over 1.45 million residents across the Service area.

As public service organisation, DWFRS has a direct responsibility to reduce its environmental impact to meet national policy goals for: carbon emissions reduction; sustainable waste management; action to reduce air pollution; help to improve biodiversity and resilience to a changing climate.

Fire and Rescue services are expected to meet these challenges primarily by becoming more resilient to operational risks. DWFRS need to embed sustainability principles into the estate and operations and consider the way that we respond to emergencies - By taking a more sustainable, approach to how we operate.

Many services across the UK are successfully reducing their environmental impacts in ways that are realising considerable cost-savings, improving efficiencies and the ethical sourcing of goods using a whole-life costing approach. The benefits are: improved financial stability, more motivated employees and excellent links with the local communities they serve, not least by opening-up contract opportunities to diverse businesses that improves competition, innovation and flexibility whilst supporting the economy across the areas they serve.

DWFRS will carry out a full review and gap analysis that identifies how we can build on efforts to deliver excellent service in full accordance with good practice sustainability. This is required to identify and determine performance, priorities for action and likely returns on investment in becoming a more sustainable, cost effective and a more resilient service.

3 – OBJECTIVES AND APPROACH

3.1 Approach

DWFRS takes a responsible approach to moderating its negative environmental impacts, but these measures have been fragmented and ad-hoc to date. Significant data on Estate Energy was collated which formed part of the Integrated Property Asset Management Plan [IPAMP]

DWFRS now needs a much more structured, substantive approach comprising of the following:

- Full commitment to this plan that defines its main aspects and impacts – both positive and negative – and which of these are material to its mission, performance and cost-effectiveness.
- Establishing an accurate baseline of its current performance for energy efficiency, water efficiency, waste management and sustainable procurement, including how it engages with local businesses and communities.
- The development of effective data collection and reporting processes and using measurable key performance indicators (KPIs), particularly outcome indicators directly linked to DWFRS objectives and goals.
- Further development of a detailed action plan for implementing this with milestones, suggested targets, defined roles and responsibilities

Along with the Network of Green Champion, every member of DWFRS will have a part to play in implementing this Environmental Sustainability Plan in terms of optimising resource efficiency, reducing carbon emissions and by working together to become ever-more effective and cost-efficient.

An important element in achieving this will be to adopt a structured approach based on globally recognised good practice systems for continuous performance improvement such as:

- ISO 55001 for Life Cycle of Asset Management
- ISO 14001:2015 for Environmental Management Systems
- ISO 50001:2018 for Energy Management
- ISO 14064-1: 2018 Carbon Emissions Measurement
- ISO 20400:2017, Sustainable Procurement Guidance
- Global Reporting Initiative (GRI) 102: General Disclosures 2016

Whilst we are not looking to become certificated against any of these standards, at least for the foreseeable future, adopting this shared high-level structure and methodology will enable DWFRS to achieve measurable good practice.

4 – STRUCTURE

4.1 Structure

DWFRS needs to identify the opportunities for renewable technologies across the Estate and develop commercial and financial mechanisms in order to allow these opportunities to be realised. In addition, take opportunities to invest in more energy efficient technologies which will also help to reduce energy consumption across the estate. To achieve this DWFRS will focus on the following areas:

- Waste
- Transport
- Water
- Purchasing and Procurement
- Energy
- Planning and Maintenance
- Communicating sustainable environmental issues

For each theme, there is an outline of where we are now, where we want to get to and the approach for getting there.

Finally, we will set out how we will deliver, monitor and review the themes within DWFRS' Environmental Sustainability Plan. The success of this will be published in the annual Environmental Sustainability Annual Report, first edition to be published April 2020.

5 – WASTE

5.1 Waste

To combat climate change, it is essential that the amount of waste we produce decreases and that sustainable disposal and transport methods are used to minimise environmental impacts. Land is currently being lost through landfill provision and so we need to mitigate this by, reusing, recycling and recovering more waste. Also, as landfill sites are still a main source for the potent greenhouse gases. Alternative disposal methods need to be found.

5.2 Where we are now

DWFRS generated 1.68 tonnes of waste from 2018 -2019 and is disposed of the following way:

2018-2019 Waste	
	Kg
Landfill	809,120
Re-cycling	862,514
Energy from waste	9,091
Total	1,680,725

This equates to approximately 142.86 metric tonnes of CO2e.per annum

5.3 Where we want to get to and how

DWFRS will improve its current waste management performance across the Estate by strictly applying the principles of the Waste Hierarchy and achieve a year on year reduction in waste to landfill by 2020. In addition, continually reduce waste generated.

Improving the understanding of waste management issues with all departments and or at individual sites by:

- Recycling facilities at all sites to reduce waste to landfill.
- Develop a uniform waste collection service that enables increased levels of recycling.
- Using the Green Champions network to promote behavioural change amongst staff with the aim of reducing the quantity of waste produced.
- Working to reduce waste associated with products that the service procures through Sustainable Procurement and following practise and guides illustrated within the ‘Buying Green Handbook’ – Green Public Procurement Edition 3.

6 – FLEET AND TRANSPORT

6.1 Fleet and Transport

DWFRS fleet and transport is fundamental to the service. The issues and challenges faced to deliver these services impacts significantly on the environment.

This must be tackled by DWFRS to ensure that all vehicle operations remain cost-effective and operationally efficient.

6.2 Where are we now

2018 -2019 MILEAGE	
Fleet	2,120,736
HR Claims	353,782
Total	2,474,518

This equates to approximately 1128 [M] tonnes of Co2 emissions per year through our vehicle use.

6.2 Where we want to get to and how

Achieve year on year reductions in C02 emissions.

DWFRS will and can tackle i transport emissions by:

- Trialling the use of alternative fuels for white fleet vehicles.
- Reducing business mileage through a number of measures, including providing more opportunities for home working Improving cycle storage and installing changing facilities in main sites to encourage running and cycling to work schemes.
- Identifying and securing sources of funding to implement sustainable procurement projects.
- Minimise CO2 emissions from transport by: looking at ways to promote car clubs and alternative fuelled vehicles such as electric cars and hybrids.
- Promoting 'smarter driving' in partnership with the Energy Saving Trust to save fuel.
- Implement White fleet car sharing management with the use of technology [Tom Tom telematics]

7 – WATER

7.1 Water

Historically the water industry is energy intensive with an associated carbon footprint.

DWFRS believe that since water deregulation it will allow and encourage innovation and efficiency from water companies due to the increased commercial need for retailers to provide value-added services based on consumer requirements.

Water consumption within this plan relates to piped supply only as Section 147 of the Water Industry Act 1991 allows for the provision of an allowance for water used: “for firefighting purposes, for the testing of apparatus installed or equipment used for extinguishing fires or for the purpose of training persons for firefighting.”

7.2 Where we are now

2018 - 2019 WATER CONSUMPTION	
Cubic Meters [CM ³]	158,780

This equates to 2.46 tonnes of carbon usage through our water consumption.

The water is supplied by the following wholesalers: Thames Valley, Wessex water and South West water respectively and billed to DWFRS bi annually, this process makes it challenging for DWFRS to identify any anomalies in usage and to monitor trends.

7.3 Where we want to get to and how

Appoint one single retailer that produce more accurate and timely billing and for DWFRS which can lead to efficiencies in consolidated invoicing process. Through deregulation DWFRS will no longer be limited to using local wholesalers for each site, we can select, through smart procurement one retailer who can manage the water supply in multiple locations and across several different wholesalers, therefore allowing DWFRS the power to be particular about service provision and have the opportunity for a retailer that provides the tools we require to manage water usage effectively. E.g. an online portal or app

- Achieve year on year reductions by installing and monitoring the AMR on all sites.
- Instant access to tools that give accurate data and identify irregularities.
- Support our water companies in their promotion of water saving equipment.
- Calculate our carbon usage of water and put in measures to reduce.
- Identifying and securing sources of funding to implement sustainable procurement projects.

8 – PURCHASING AND PROCUREMENT

8.1 Purchasing and Procurement

The Public Services (Social Value) Act 2012 requires DWFRS to consider sustainability issues during the procurement process for goods, services and works, and to factor sustainability issues into the evaluation of suppliers where appropriate.

8.2 Where we are now

DWFRS include environmental, sustainability and social values as an evaluation criterion within procurement processes, where it has been agreed to be appropriate by the project lead/contract manager. To date, this has usually been through the addition of a generic quality question regarding the social value that will be provided as part of the contract. Social value criteria, when included, usually have historically held a low overall weighting within the tender process, 5% or less of the overall score.

8.3 Where we want to get to and how

- Publicise our intention to focus on sustainability issues within the supply chain. Update the DWFRS vision from the mission statement to reflect this if possible. <https://www.dwfire.org.uk/about-us/who-we-are/vision-and-values/>
- Nominate a sustainability champion within DWFRS to drive consideration of sustainability in DWFRS business activities and act as point of consultation during procurement processes
- Identify DWFRS activities that have a social impact that can benefit from supplier contribution
- Map our supply chain to identify potential sustainability issues from current supplier activities. Work with current suppliers to try to address any issues. Issue notice of termination where significant issues are identified, and supplier refuses to address them.
- When procuring:
 - Fully consider sustainability issues that may arise as a result of each contract during the initial business case and project planning stage
 - Develop and clearly state the sustainability requirements for suppliers within the written specification for each procurement process, requiring suppliers and their sub-contractors to adhere to DWFRS' key sustainable development principles
 - Develop quality questions related to the project specific sustainability issues stated within the specification
 - Weight sustainability criteria higher within the evaluation process to increase focus on these issues by the supplier market and encourage creative solutions to sustainability issues
 - Develop KPIS related to sustainability, where appropriate, and ensure they are included within the contract
 - Contractually require suppliers to report annually on their CO2 emissions from delivering services on our behalf

- Identify all potential costs that may arise from procurement of the good/service/works, from purchase through to disposal, and evaluate the pricing during procurement processes based on whole life cycle costs.

<https://www.cips.org/en/knowledge/procurement-topics-and-skills/strategy-policy/whole-life-costing/>

- Ensure that supplier sustainability performance is monitored through the contract management process, including supplier enforcement of sustainability standards on their sub-contractors
- Work with strategically important suppliers to jointly identify and implement opportunities reduce environmental impact of activities being undertaken through performance of the contract and/or generate social benefit
- Fully embrace and apply the standards and practices set within the European Commission's **Buying Green Handbook – Green Public Procurement**
- Report positive sustainability outcomes from our efforts, identifying the contributing suppliers where they are happy to be named. Include clauses within contracts to allow such publication.

Financial efficiencies obtained through procurement will be play a significant part for DWFRS to reduce expenditure in the coming years and achieving objectives set within the DWFRS Service Delivery Plan and RESPECT Values of 'making every penny count', however procurement outcomes should focus on value generated rather than savings made. Savings should not be prioritised at the expense of social value.

9 – ENERGY

9.1 Energy

In delivering its services and through its day-to-day operations, DWFRS consumes a large amount of energy, through heating and energy use in buildings and fleet.

A major part of good sustainable practices is using energy wisely. As energy prices continue to rise, it is becoming increasingly important to make the most efficient use of energy.

9.2 Where we are now

2018 -2019 ENERGY		
UTILITY	kWh	£
Gas	1,037,485	125,592
Electricity	2,672,573	295,733
Total	3,710,058	421,325

This equates to approx. 840 metric tonnes of CO2e.

The commodity costs account for approximately 40% of our bills - Non-commodity costs are rising and by 2020 they're set to make up around 60%.

DWFRS need to continue to objectively focus at where energy is used most and assessing how it can be reduced cost- effectively.

Out of the 52 sites within The Service, currently five stations have Half Hourly Read Meters. [HHR] There is no historic data or clear pattern to identify the reasons why the 'five' sites were selected. DWFRS has insufficient historical data that does not allow for benchmarking the benefits of future energy use, for example identifying sites that would benefit from solar panel energy and alternative renewable energy sources.

Improve baseline data by getting an accurate record of energy, water, waste at each site. Currently gathering data to monthly level of detail, ideally hourly data would be useful in monitoring and identifying high usage.

9.2 Where we want to get to and how

Continually reduce year on year consumption.

Installing HHR meters at all sites. The technology involved in HHR meters is aimed at enabling accurate, instantaneous and user-friendly system to electricity usage. By communicating directly with the energy supplier, they send meter readings digitally as it's being used, which ensures more accurate energy bills. It is a far more granular level of data and by obtaining this rich data which can assist DWFRS in developing the energy management strategies by identifying opportunities to make significant savings by getting a far more informed view of our energy usage.

While some of the costs will be unavoidable, HHR will allow the Service to plan and avoid excessive charges.

Procure the best provider that provides best value for money for the service, in addition the best available data portal for capturing and monitoring usage.

Future improvements to concentrate on the scope for using renewable energy such as solar panels.

Action to address this can be centred on the three common actions:

1. Behaviour change.
2. Energy efficiency.
3. Renewable energy.

DWFRS will investigate all themes within this plan to assess how the overall energy consumptions can be reduced cost-effectively.

10 – CARBON EMISSIONS

10.1 Carbon Emissions

This section establishes the plan by setting out how DWFRS is going to achieve its reductions. In principle it sets out the following vision:

‘DWFRS will embed carbon management into the delivery of all services to reduce our carbon emissions and set the example. We will use experience gained in order to influence and support our staff, communities and others to reduce their carbon emissions - mitigating the effects of climate change’

Calculating our carbon footprint of our products and services will:

- Identify cost savings across the supply chain
- Identify opportunities to reduce environmental impact through reductions in material use, water, waste and energy
- Inform innovation for low carbon and sustainable product design
- Understand supply chain risks
- Prepare for future legislation

10.2 Where we are now

DWFRS total CO2 emissions

APPROXIMATE CO2 EMISSIONS (tCO2e)	
GAS	190.74
ELECTRICITY	741.10
WATER	2.46
FLEET	1128.00
WASTE	142.86
TOTAL	2205.16

10.2 Where we want to get to and how

Continually reduce year on year carbon emissions.

Delivery of this will use the following approach:

- Raising awareness and encouraging behavioural change to ensure that wasteful practices are stopped.
- Producing site by site league tables that can be accurately benchmarked and challenge irregularities through the Green Champion Network.
- Placing Sustainability as an item for discussion on every agenda.
- Implementing energy efficiency measures – this will range from installing energy efficiency technology in buildings and ICT, to implementing policies that will result in greater energy efficiency.
- Office and workplace transformation by actively promoting the principles of smarter working.
- Encourage the use of Skype training and equipment to reduce travel miles for meetings.

**Baseline figures to be published within Annual Environmental and Sustainability Report 2020.*

***These figures are calculated on DWFRS' utilities, mileage and the calculated c02e it takes to deliver the day to day operations and objectives. It does not take into account 'full sustainability' nor -the three pillars of sustainability. It is anticipated that the Annual Environmental and Sustainability Report will only report on CO2 footprint relating to the day to day operations and processes and impacts within the service.*

11 – MAINTENANCE AND IMPROVEMENT PROJECTS

11.1 Maintenance and Improvement Projects

DWFRS continual building improvement maintenance works programmes have the potential to deliver considerable energy savings.

11.2 Where we are now

- Replacing LED lighting – upgrading all light fittings to LED at each site during cyclical works.
- Drying rooms - replacing drying cabinets with dehumidifiers to reduce energy consumption.
- Automatic front doors now on all stations, combined with improved heating controls in appliance bays and muster bay separation to reduce heating bills.
- Muster bay separation to heat the appliance bay to a lower temperature than the muster bay.
- Switching from fossil fuel to battery powered tools and equipment.

11.3 Where we want to get to and how

There may also be a strong business case for doing work across several sites as a separate project, based on a relatively short payback (under 5 years).

- Maximise the positive impacts of all maintenance works and projects by agreeing works that strongly promote a wide range of sustainability issues.
- Identifying and securing sources of funding to implement sustainable procurement projects.
- Continually review the way in which sites are refurbished in order to maximise energy efficiency.

- Installation of an integrated BMS which will provide data give control and reduce energy consumption.

12 – COMMUNICATING ENVIRONMENTAL ISSUES

12.1 Communicating environmental issues

More than ever before people are concerned about the future of the planet and the wellbeing of people in all countries. The effects of climate change are motivating people to change their lifestyles and there is pressure on all tiers of government to respond and facilitate a shift in awareness. DWFRS understands that it cannot fix things for people - we can only try to fix things with people. DWFRS can facilitate and sometimes provide the means for action, by supporting new initiatives, championing 'green-activity' within their departments and ensuring they reduce their impact by adapting their lifestyles to use less energy. Only together can effective action be taken

12.2 Where are we now

Climate Change / green eco champions being appointed on every one of DWFRS location and given a day-to-day responsibility to promote sustainability in the areas in which they work. Commitments include being a link to disseminate climate change initiatives, sharing best practice attending a forum meeting every three months and, importantly, implementing practical climate change initiatives such as encouraging people to switch off lights and computer monitors and ensuring recycling takes place.

12.3 Where we want to get to and how

Take a serious, considerate approaches and take positive action where possible to implement ideas and suggestions for improvement. Develop case by case studies and plans to support and justify improvements. Communicate all progress and plans for improvements.

Ensuring that DWFRS Place 'Sustainability' on every meeting agenda to highlight concerns reports progress and actively encourage discussions for ongoing improvements.

13 Approval and Commitment

DWFRS will fully commit to this plan and furthermore develop and improve on the sustainability strategy and related action plan as an integral aspect of its aim to continue being a leader in excellence.

In order to successfully delivery this plan DWFRS will commit to embrace innovation in order to create savings and reduce the environmental impact. The impact of DWFRS work will be amplified if it is matched by the commitment of service stated within.

To address this, DWFRS will take serious consideration, where available, to increase investment in more sustainable and renewable energy sources.

This will not only allow DWFRS to generate capital and dramatically cut operational and administrative costs, but will significantly reduce energy wastage, cutting both our carbon footprint and energy costs.

	Print Name	Signature
Approved by Estates Officer	Salima Parmak	
Approved by		
Approved by		
Authorised by		

