



Gunn MacPhee & Associates Ltd

Consulting Engineers

Ross-Shire Business Centre
1 Castle Street, Dingwall, IV15 9HU

TEL – 01349 866700, FAX – 01349 866999

www.gunnmacphee.co.uk

Design Project Management Civil Engineering Environmental Building Surveying



Gunn MacPhee & Associates Ltd

Consulting Engineers

Environmental Presentation

Title: Environmental Sustainability for Small Businesses

Presented By: Colin MacPhee

Company: Gunn MacPhee & Associates Ltd.



Gunn MacPhee & Associates Ltd

Consulting Engineers

Current European Legislation

- Waste Framework Directive (75/442/EEC)
- Landfill Directive (99/31/EC)
- Hazardous Waste Directive (91/689/EEC)
- Incineration of Waste (2000/76/EC)
- Packaging and Packaging Waste Directive (94/62/EC)
- End of Life Vehicles Directive (2000/53/EC)
- Batteries & Accumulators Directive (91/157/EEC)
- Integrated Pollution Prevention and Control Directive (96/61/EC)
- Sewage Sludge Directive (86/278/EC)
- Waste Electrical and Electronic Equipment Directive (2002/96/EC)
- ROHS Directive (2002/95/EC) The Environment Protection Act (1990)



Gunn MacPhee & Associates Ltd

Consulting Engineers

What is the purpose of this legislation ?



Gunn MacPhee & Associates Ltd
Consulting Engineers

To achieve Environmental Sustainability



Gunn MacPhee & Associates Ltd
Consulting Engineers

What does Environmental
Sustainability Mean?



Gunn MacPhee & Associates Ltd

Consulting Engineers

Environmental sustainability means ensuring that an individual, company or country does not use an unsustainable share of the world's resources.



Gunn MacPhee & Associates Ltd

Consulting Engineers

How is sustainability measured ?



Gunn MacPhee & Associates Ltd
Consulting Engineers

Using an Ecological Footprint



Gunn MacPhee & Associates Ltd

Consulting Engineers

Scotland ecological footprint in 2001 was
2.4 times the global average



Gunn MacPhee & Associates Ltd
Consulting Engineers

Why bother with Environmental
Sustainability ?



Gunn MacPhee & Associates Ltd

Consulting Engineers

Energy wasted - £1.3 Billion Annually



Gunn MacPhee & Associates Ltd
Consulting Engineers

Wasted Resources - £300 Million Annually



Gunn MacPhee & Associates Ltd
Consulting Engineers

Wasted Resources - £300 Million Annually

Scotland's Waste
3 Million Tonnes per Year



Gunn MacPhee & Associates Ltd

Consulting Engineers

Wasted Resources - £300 Million Annually

Scotland's Waste
3 Million Tonnes per Year

Currently only 12% Recycled



Gunn MacPhee & Associates Ltd

Consulting Engineers

Increasing economies in countries such as
India & China will put a strain on existing
resources



Gunn MacPhee & Associates Ltd

Consulting Engineers

Cost of raw materials & resources will
increase.



Gunn MacPhee & Associates Ltd

Consulting Engineers

How does this effect Small Business ?



Gunn MacPhee & Associates Ltd

Consulting Engineers

How does this effect Small Business ?

95% of Business in the UK employ 5 people
or fewer.



Gunn MacPhee & Associates Ltd

Consulting Engineers

How does this effect Small Business ?

- 95% of Business in the UK employ 5 people or fewer
- Increasing amounts of resources are imported



Gunn MacPhee & Associates Ltd

Consulting Engineers

So how do we reduce our
Ecological Footprint?



Gunn MacPhee & Associates Ltd

Consulting Engineers

- Understand the environmental impact from business



Gunn MacPhee & Associates Ltd

Consulting Engineers

- Understand the environmental impact from business
- Use resources efficiently



Gunn MacPhee & Associates Ltd

Consulting Engineers

- Understand the environmental impact from business
 - Use resources efficiently
 - Reduce waste



Gunn MacPhee & Associates Ltd

Consulting Engineers

Method



Gunn MacPhee & Associates Ltd

Consulting Engineers

Method

- Identify current inefficiencies & waste



Gunn MacPhee & Associates Ltd

Consulting Engineers

Method

- Identify current inefficiencies & waste
 - Develop an Environmental Policy



Gunn MacPhee & Associates Ltd

Consulting Engineers

Method

- Identify current inefficiencies & waste
 - Develop an Environmental Policy
 - Introduce Awareness Training



Gunn MacPhee & Associates Ltd

Consulting Engineers

Method

- Identify current inefficiencies & waste
 - Develop an Environmental Policy
 - Introduce Awareness Training
 - Use Greener Products



Gunn MacPhee & Associates Ltd

Consulting Engineers

Method

- Identify current inefficiencies & waste
 - Develop an Environmental Policy
 - Introduce Awareness Training
 - Use Greener Products
- Monitor resource use and waste generated



Gunn MacPhee & Associates Ltd

Consulting Engineers

Method

- Identify current inefficiencies & waste
 - Develop an Environmental Policy
 - Introduce Awareness Training
 - Use Greener Products
- Monitor resource use and waste generated
 - Work with other businesses



Gunn MacPhee & Associates Ltd
Consulting Engineers

Developing an Environmental Policy



Gunn MacPhee & Associates Ltd

Consulting Engineers

Developing an Environmental Policy

➤ Gain Staff Support



Gunn MacPhee & Associates Ltd

Consulting Engineers

Developing an Environmental Policy

- Gain Staff Support &
- Identify Responsible person



Gunn MacPhee & Associates Ltd

Consulting Engineers

Developing an Environmental Policy

- Gain Staff Support &
- Identify Responsible person
- Gather Baseline Information



Gunn MacPhee & Associates Ltd

Consulting Engineers

Developing an Environmental Policy

- Gain Staff Support &
- Identify Responsible person
- Gather Baseline Information
- Identify Changes & Decide on Improvements



Gunn MacPhee & Associates Ltd

Consulting Engineers

Developing an Environmental Policy

- Gain Staff Support &
- Identify Responsible person
- Gather Baseline Information
- Identify Changes & Decide on Improvements
 - Formulate Plan & Set Timetable



Gunn MacPhee & Associates Ltd

Consulting Engineers

Developing an Environmental Policy

- Gain Staff Support &
- Identify Responsible person
- Gather Baseline Information
- Identify Changes & Decide on Improvements
 - Formulate Plan & Set Timetable
 - Carry out Plan & Review at Intervals



Gunn MacPhee & Associates Ltd

Consulting Engineers

Developing an Environmental Policy

- Gain Staff Support &
- Identify Responsible person
- Gather Baseline Information
- Identify Changes & Decide on Improvements
 - Formulate Plan & Set Timetable
 - Carry out Plan & Review at Intervals
 - Identify Failure & Update Plan



Gunn MacPhee & Associates Ltd

Consulting Engineers

Developing an Environmental Policy

- Gain Staff Support &
- Identify Responsible person
- Gather Baseline Information
- Identify Changes & Decide on Improvements
 - Formulate Plan & Set Timetable
 - Carry out Plan & Review at Intervals
 - Identify Failure & Update Plan
- Continuously Monitor & Repeat Exercise



Gunn MacPhee & Associates Ltd

Consulting Engineers

What are the Benefits of all this ?



Gunn MacPhee & Associates Ltd

Consulting Engineers

What are the Benefits of all this ?

Financial Savings



Gunn MacPhee & Associates Ltd

Consulting Engineers

What are the Benefits of all this ?

Financial Savings
Compliance with Legislation



Gunn MacPhee & Associates Ltd

Consulting Engineers

What are the Benefits of all this ?

Financial Savings

Compliance with Legislation

Contribute to Proactive Image of Business



Gunn MacPhee & Associates Ltd

Consulting Engineers

What are the Benefits of all this ?

Financial Savings

Compliance with Legislation

Contribute to Proactive Image of Business

Environmental Benefit



Gunn MacPhee & Associates Ltd

Consulting Engineers

Gunn MacPhee & Associates Ltd
What Can we offer ?



Gunn MacPhee & Associates Ltd

Consulting Engineers

Gunn MacPhee & Associates Ltd
What Can we offer ?

- Site visit to identify resource use & waste generated



Gunn MacPhee & Associates Ltd

Consulting Engineers

Gunn MacPhee & Associates Ltd

What Can we offer ?

- Site visit to identify resource use & waste generated
- Undertake feasibility study & whole life analysis on options to reduce resources & waste



Gunn MacPhee & Associates Ltd

Consulting Engineers

Gunn MacPhee & Associates Ltd

What Can we offer ?

- Site visit to identify resource use & waste generated
- Undertake feasibility study & whole life analysis on options to reduce resources & waste
 - Water Management & Minimisation



Gunn MacPhee & Associates Ltd

Consulting Engineers

Gunn MacPhee & Associates Ltd

What Can we offer ?

- Site visit to identify resource use & waste generated
- Undertake feasibility study & whole life analysis on options to reduce resources & waste
 - Water Management & Minimisation
 - Design & Project Management



Gunn MacPhee & Associates Ltd

Consulting Engineers

Ross-Shire Business Centre
1 Castle Street, Dingwall, IV15 9HU

TEL – 01349 866700, FAX – 01349 866999

www.gunnmacphee.co.uk

Design Project Management Civil Engineering Environmental Building Surveying