



## EMAS HELP-DESK CASE STUDY

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## Background

Taunton Deane Borough Council's commitment to improving its environmental performance is set out in its Environmental Policy (adopted in February 1995). The Policy (Appendix 1) was drawn up in close consultation with officers and members of the Council, and its broad aims provide a strong foundation for more specific activities aimed at environmental improvement.

In April 1995, the Council decided to use EMAS (Appendix 2) in a comprehensive way to translate its Environmental Policy into action. A clear distinction was made at the outset between 'direct effects' (e.g. energy use in Council buildings) and 'service effects' (e.g. the environmental effects of a Council's Landscape Section), with a decision to concentrate initially on 'direct effects'.

## Methodology

Having decided to focus on direct effects, five issues were identified as being significant and requiring more detailed review, prior to the 'environmental programme' stage of EMAS. The direct effects reviewed were:

1. Waste and Pollution (dealing with office wastes and pesticides use)
2. Energy use (arising from Council buildings and activities)
3. Water use (arising from Council buildings and activities)
4. Transport use (related to the Council's own fleet and staff mileage)
5. Purchasing

The scope of each review was corporate, gathering information from across the whole authority. Reviews were conducted by the Environmental Co-ordinator as the 'EMAS Lead Officer', with specialist staff (e.g. Energy Manager, Waste Control Officer) contributing where appropriate.

Each review concentrated on data and trends which were relatively easy to collect from the Council's own records. Information which proved too difficult or time consuming to obtain was simply noted as requiring possible action in the 'programme' stage; it was always considered vital that the reviews should not be conducted in a vacuum, but in the context of a planned series of steps culminating in a regularly updated environmental programme and management system.

Input from specialist staff was vital to the whole review process. For example, the Council's Electrical and Mechanical Engineer was able to provide most of the data required for the review of Energy Use, figures on fuel consumption and cost were provided by Internal Audit staff for the Transport Review and Waste Control Staff provided data such as volume of paper recycled within offices for the Review of Waste and Pollution.

EMAS Review Worksheets were used only as a guide to the kind of information required and most officers found the format, particularly the volume of paper, daunting. Early experience during the review process suggests that simply sending out worksheets to staff and waiting for responses will not yield successful results in a short time. Conducting the Reviews relatively quickly demanded frequent contact with specialist staff involved, both to keep the process "on track" (i.e. not gathering irrelevant information) and to maintain momentum. More information was gathered in this

fashion than by reading off completed worksheets.

### **Costs of Undertaking the Review**

Carrying out all five detailed reviews involved approximately two months' work for one member of staff between April and September 1995. Contributions from other staff amounted to approximately four days full time equivalent over the same period.

### **Benefits of Undertaking the Review**

The benefits to the Council can be summarised under three points:

1. Conducting the reviews 'in-house' in the manner described has built both an understanding of the environmental management process generally and a good initial 'ownership' of the issues to be managed.
2. The baseline of information and the recommendations contained within each review report provide a good 'springboard' into the programme stage, where Environmental Policy aims are translated into specific actions and responsibilities.
3. By adopting a 'Management System' approach to environmental issues, the Council reinforces its commitment to the Local Agenda 21 process, increasingly involving local groups, business interests and individuals throughout the Borough.

### **Reporting on Review Findings**

Each review was prepared as a brief report (Appendices 3 and 4) with a series of recommendations to carry forward into the programme stage. The reports were presented at two levels:

#### **1. Member Level**

Ongoing responsibility for Environmental Policy implementation and Local Agenda 21 issues lies with an Environmental Strategy Panel comprising nine members drawn from different Council Service Committees. The Panel has a direct reporting link to Policy Committee, thus ensuring that the environment is considered at corporate level within the Council, across all divisions and Committees.

The Review Reports were presented to the Environmental Strategy Panel and are now available to all members.

#### **2. Officer Level**

The Chief Officers' Management Team considered the Review Reports as part of wider report on Environmental Policy implementation. As a first step in the drive to develop Environmental Programmes for each direct effect, the Management Team has now nominated staff from different Council Divisions to form Officer Working Groups. The formation of these Working Groups reflects the increasingly corporate approach taken by the Council towards the management of environmental issues.

## The Future

Each Working Group will develop and regularly update its environmental programme, using the information and recommendations contained within the Review Reports as a baseline.

Progress towards implementing the Council's Environmental Policy will continue to be considered and approved at regular intervals by Chief Officers' Management Team and the Environmental Strategy Panel.

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### Help-Desk Pledge to Continual Improvement

It is the aim of the Help-Desk to continually improve its performance in terms of the quality of advice which is given. If in reading this document you have comments in the style, content or approach which you feel would raise the general level of understanding of LA-EMAS then please contact:

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## **APPENDIX 1 - TAUNTON DEAN BOROUGH COUNCIL'S ENVIRONMENTAL POLICY**

### **ENVIRONMENTAL POLICY**

Taunton Deane Borough Council is committed to protecting and continuously improving the environment of the Borough. This commitment stems from a concern about threats and damage to the environment, but also from a desire to improve the quality of life for the local community.

The Council's overall Policy is to maintain and continuously improve the environmental quality of the Borough by:-

- ★ minimising any adverse environmental impacts resulting from its own activities;
- ★ encouraging others in the community to do likewise;
- ★ promoting environmentally responsible behaviour throughout the Borough.

The Council will carry out a review of its own activities and then set specific objectives, targets and responsibilities to ensure that the aims of this Policy are met.

The Council's aim for energy is to:-

**MINIMISE ENERGY AND WATER USE IN ITS OWN BUILDINGS, PLANT AND EQUIPMENT AND PROMOTE RESPONSIBLE ENERGY MANAGEMENT THROUGHOUT THE BOROUGH.**

The Council's aims for waste control are to:-

**MINIMISE WASTE PRODUCTION THROUGH REDUCING MATERIALS CONSUMED, RE-USING MATERIALS AND RECYCLING WHEREVER POSSIBLE;**

**DISPOSE OF WASTE, WHERE OTHER MEANS OR WASTE CONTROL ARE NOT PRACTICABLE, USING THE LEAST ENVIRONMENTALLY DAMAGING OPTION; AND**

**PROMOTE SOUND WASTE MANAGEMENT PRACTICES THROUGHOUT THE BOROUGH.**

The Council's aim for purchasing is to:-

**PURCHASE ENVIRONMENTALLY FRIENDLY PRODUCTS AND SERVICES WHICH ARE EFFECTIVE AND CONSISTENT WITH OUR DEMANDS FOR QUALITY AT A REASONABLE PRICE.**

The Council's aims for the natural environment and open spaces are to:-

**PROTECT AND ENHANCE TAUNTON DEANE'S DIVERSITY OF NATURAL HABITATS AND WILDLIFE; LANDSCAPE CHARACTER AND PUBLIC OPEN SPACES;**

**PROMOTE COMMUNITY AWARENESS AND PARTICIPATION IN COUNTRYSIDE INITIATIVES AND ISSUES; AND**

**PROTECT LAND FROM POLLUTION AND ENCOURAGE SUSTAINABLE LAND MANAGEMENT PRACTICES.**



The Council's aims for the built environment are to:-

PROTECT AND ENHANCE THE CHARACTER OF CONSERVATION AREAS, TOWNS, VILLAGES AND HAMLETS AND SAFEGUARD THE BOROUGH'S HISTORIC AND ARCHITECTURAL HERITAGE; AND

ENCOURAGE GOOD DESIGN IN NEW DEVELOPMENT CONSISTENT WITH ENVIRONMENTAL PROTECTION AND ENHANCEMENT WHEREVER POSSIBLE.

The Council's aims for transport are to:-

PROMOTE A MORE SUSTAINABLE SYSTEM OF TRANSPORT IN THE BOROUGH; AND

TAKE STEPS TO ENCOURAGE THE WHOLE COMMUNITY TO ADOPT MORE ENVIRONMENTALLY FRIENDLY MODES OF TRANSPORT.

The Council's aims for environmental health are to:-

MINIMISE AND MONITOR AIR, WATER, LAND AND NOISE POLLUTION IN THE BOROUGH;

SEEK TO ENSURE SAFE AND HEALTHY LIVING AND WORKING CONDITIONS FOR ALL IN THE BOROUGH;

PROMOTE HEALTHY LIFESTYLES, SAFE AND HEALTHY FOOD AND ACT TO REDUCE THREATS TO HUMAN HEALTH IN THE BOROUGH; AND

PROMOTE RESPONSIBLE ANIMAL OWNERSHIP AND REDUCE THREATS TO ANIMAL HEALTH IN THE BOROUGH.

The Council's aim for Information and Education is to:-

SPREAD INFORMATION AND RAISE AWARENESS OF ENVIRONMENTAL ISSUES IN THE WHOLE COMMUNITY.

## PRINCIPLES OF ACTION

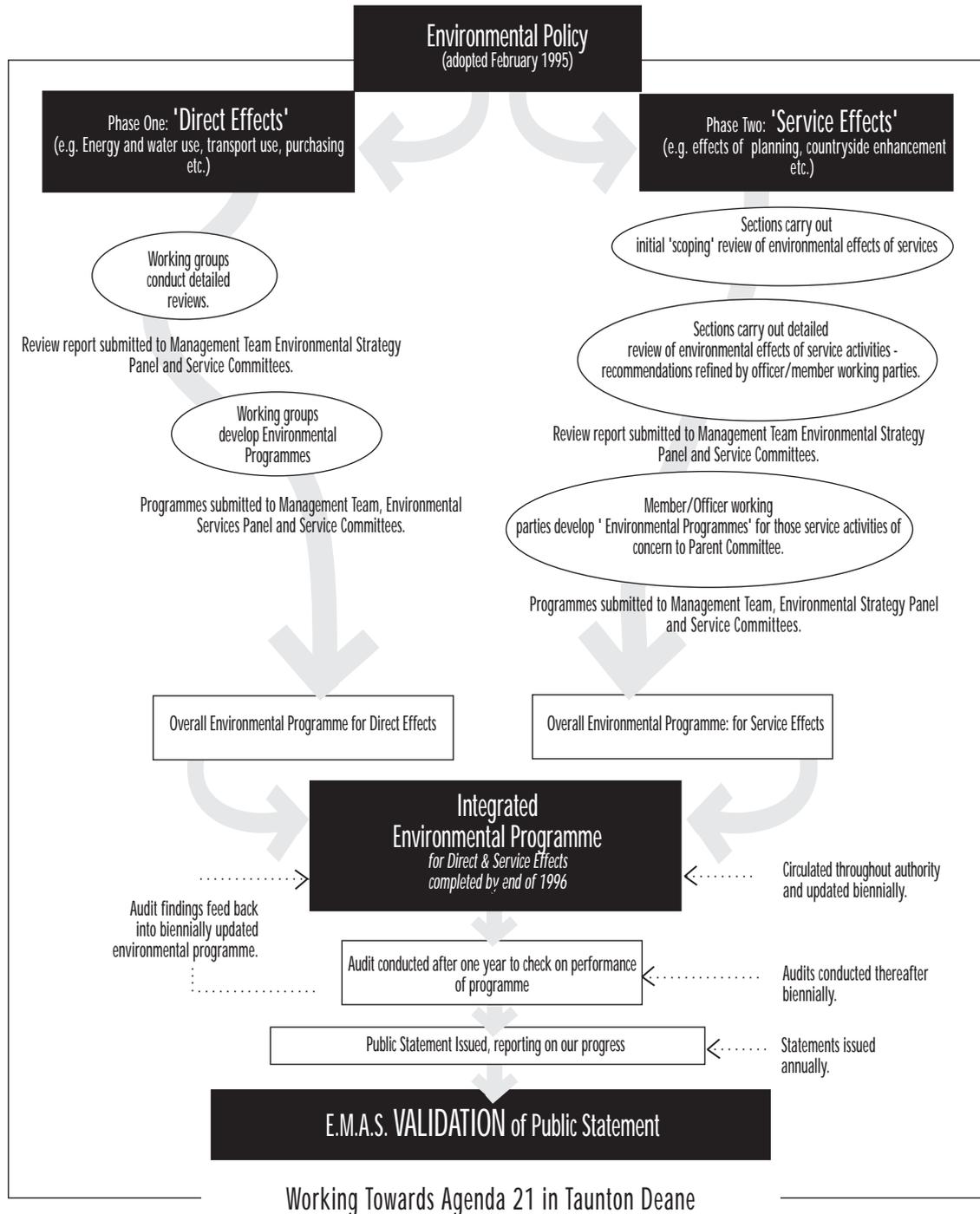
In delivering its policy aims, the Council will apply the following principles:-

- ★ fostering greater staff and member awareness of and responsibility for environmental issues;
- ★ liaison and co-ordination on environmental issues both within the Authority and between the Authority and other organisations;
- ★ assessment of all new policies, activities and practices for their effects on the environment;
- ★ providing environmental information and encouraging open dialogue with the local community on environmental issues;
- ★ encouraging and supporting, wherever possible, the sustainable use of local materials, local expertise and local resource within the public and private sector.

- ★ encouraging contractors working on the Council's behalf to apply environmental standards similar to our own;
- ★ provision of budgets for environmental initiatives and action;
- ★ compliance with environmental legislation; and
- ★ prevention and minimisation of, and contingency procedures for, environmental accidents.

# APPENDIX 2 - APPLICATION OF ECO-MANAGEMENT AND AUDIT SCHEME (EMAS) WITHIN TAUNTON DEANE B.C.

Overall aim: To develop, by the end of 1996, an integrated Environmental Programme (Strategy) as part of the Council's internal preparation for Local Agenda 21.



## APPENDIX 3 - ENVIRONMENTAL REVIEW OF ENERGY USE BY TAUNTON DEANE BOROUGH COUNCIL - SEPTEMBER 1995

### 1. Introduction

#### 1.1 Energy use is a key issue of importance identified in the Council's Environmental Policy, which states that the Council will:-

“MINIMISE AND MONITOR ENERGY AND WATER USE IN ITS OWN BUILDINGS, PLANT AND EQUIPMENT AND PROMOTE RESPONSIBLE ENERGY MANAGEMENT THROUGHOUT THE BOROUGH”.

#### 1.2 This review forms the first stage in an ongoing process of:-

- ★ Setting objectives as to what the Council will do to meet its Policy commitment.
- ★ Specifying individual activities as to how objectives will be fulfilled.
- ★ Developing indicators to measure performance of the activities.
- ★ Setting targets for each indicator
- ★ Setting timescales as to when targets will be met.
- ★ Assigning responsibilities as to who should perform tasks and monitoring.
- ★ The above steps form an action plan, or programme, for energy use.

#### 1.3 This review has been conducted by the Environmental Co-ordinator in close consultation with the Electrical and Mechanical Engineer. It is split into the following sections:-

- ★ Scope of the review.
- ★ Energy use by the Council.
- ★ Important strengths in energy management (where identified) and examples of good practice.
- ★ Important weaknesses in energy related activities and/or their management.
- ★ Draft objectives arising from the above.

### 2. Scope of the Review

#### 2.1 The review focuses on those buildings with the most significant energy use. Information is not easily forthcoming for every single Council building, but this review does cover the vast majority of Council energy use.

#### 2.2 For the purposes of this review, the following units are taken to represent the Council's total energy use in 1994.

- ★ Large Leisure and Recreation Sites (5)

Blackbrook Pavilion, St. James Street Swimming Pool, Station Road Swimming Pool, Wellington Sports Centre, Ellis Field Nurseries.

- ★ Main Offices and Depot (3)  
Flook House, Priory Depot, The Deane House.
- ★ Community Housing (3)  
Kilkenny Court, Lodge Close, Broomfield House.
- ★ Crematorium
- ★ Municipal Buildings
- ★ Small Leisure and Recreation Sites (5)  
Courtland Road Pavilion, Galmington Pavilion, Hamilton Gault Pavilion, Priorswood Pavilion, Taunton Green Pavilion.
- ★ Public Toilets
- ★ Car Parks (2)  
Paul Street, High Street.

### 3. Council Energy Use

3.1 The Council uses electricity and natural gas for the following purposes:-

- ★ Space and water heating
- ★ Power.
- ★ Air Conditioning.
- ★ Lighting.

Box 1 below gives figures for total energy use by the Council.

<b>BOX 1 Vital Statistics of Energy Use and its Environmental Impact in 1994</b>	
Total Electricity Consumption :	2,837,995 kWh
Total Gas Consumption :	472,455 Therms
Total Emission of Carbon Dioxide :	4,444 Tonnes
Carbon Dioxide Emission Resulting from Gas Consumption:	2423 Tonnes
Carbon Dioxide Emission Resulting from Electricity Consumption :	2021 Tonnes
Total Expenditure on Energy :	

3.2 The following tables show how the different Council Buildings contribute to the totals shown in Box 1.

**TABLE 1 : Gas Consumption by Council Buildings in 1994**

<b>Buildings</b>	<b>Percentage of Total Gas Consumption</b>	<b>Percentage of Total Council CO<sub>2</sub> Emissions</b>	<b>Comments</b>
Main Offices (3)	51.6	28.1	Energy costs falling due to more competitive contracts. Consumption also falling in Deane House due to efficiency measures such as loft insulation.
Large Leisure and Recreational Sites (5)	41.8	22.7	Consumption remains static and costs falling on whole due to more competitive contracts. Combined heat and power units maintain high energy efficiency on 3 sites.
Community Housing (figures for Broomfield House and Lodge Close Only)	2.9	1.6	Consumption has been increasing (no reason given). Costs remain steady.
Crematorium	2.7	1.4	More efficient gas heating has replaced electric under-floor heating. Consumption steady on 1993 and falling from 1992. Costs steady.
Other	1	0.6	
<b>TOTAL</b>	<b>100</b>	<b>54.4</b>	

**TABLE 2 : Electricity Consumption by Council Buildings in 1994**

<b>Buildings</b>	<b>Percentage of Total Gas Consumption</b>	<b>Percentage of Total Council CO<sub>2</sub> Emissions</b>	<b>Comments</b>
Large Leisure and Recreation Sites (5)	43.8	16.8	Consumption rising on all sites except St. James Swimming Pool. Reasons include increased use of Station Road Pool and opening of new tennis centre at Blackbrook Pavilion. Costs falling on whole except at Blackbrook.
Main Offices (3)	23	11.7	Consumption remains static except at Priory Depot, due to new compactor. Costs falling due to new contract at Deane House and replacement of electric heating with gas in Flook House. Further reductions difficult due to increased IT use.
Crematorium	9.7	5	Consumption and costs steady. Electric under-floor heating replaced with efficient gas-fired system.
Car Parks (2)	8.5	4.3	Consumption has risen slightly on figures for 1992. Costs falling due to improved management controls and installation of power factor equipment.
Community Housing (3)	5.7	2.9	Consumption remains steady on the whole. Costs rising due to increased charges. Kilkenny Court has proposals for loft insulation and gas-fired heating.
Taunton Market	4.8	2.5	Consumption and costs falling for unknown reason.
Public Toilets	2.8	1.4	Consumption reducing due to urinal controls and more efficient lighting.
Other*	1.9	1.0	
<b>TOTAL</b>	<b>100</b>	<b>45.6</b>	

\*listed in 2.2

**TABLE 3 : Buildings Responsible for Carbon Dioxide Production in 1994/95 (through use of gas and electricity)**

Building(s)	CO <sub>2</sub> Produced (Tonnes)	Total CO <sub>2</sub> Production as Percentage of Council Total (%)
Main Offices (3)	1,771	39.8
Large Leisure and Recreation Sites (5)	1,757	39.5
Crematorium	285	6.4
Community Housing	203	4.6
Car Parks	193	4.3
Market	109	2.4
Other*	127	2.8
<b>TOTAL</b>	<b>4,445</b>	<b>100.00</b>

\*listed in 2.2

### 3.3 *Energy Use and Carbon Dioxide (CO<sub>2</sub>) Emissions*

3.3.1 CO<sub>2</sub> is the gas principally associated with global warming. It is an inevitable by-product of fossil fuel burning and approximately 55% of CO<sub>2</sub> is emitted by electricity generation and energy use in the domestic and commercial sectors. Road transport and deforestation account for the bulk of the remaining CO<sub>2</sub> emissions arising from human activities (source: DoE).

The Council's Environmental Strategy Panel has requested that CO<sub>2</sub> be recognised in the Council's Environmental Programme and that realistic and achievable targets be set for its reduction within the Programme.

3.3.2 At present, the Council generates approximately 4,444 tonnes of CO<sub>2</sub> per annum through its use of energy (1994/95 figures). This would create a bubble of 84 metres radius.

## 4. **Strengths in Energy Management and Examples of Good Practice**

### 4.1 *Management Strengths Summary*

- ★ The Council has a full time officer responsible for good energy management in all Council activities.
- ★ A computerised energy management system called "XS Detect" has been in place since 1989. This is used to monitor energy use and rapidly correct any excesses due to faulty equipment, leaks etc.

- ★ Energy consumption of Council offices and leisure and recreation sites is compared periodically against Audit Commission yardsticks. Performance on the whole has been very good.
- ★ The Council has a small team of officers called the “meter” group, pursuing good energy management in The Deane House. A bi-monthly newsletter, The “METER”, is produced for all Council staff. The team has the following objectives:-

Monitor existing energy use; investigate problems and take action to resolve these.

Evaluate new energy saving measures; investigate their possible use in The Deane House; recommend introduction of cost-beneficial schemes.

Transfer responsibility for energy monitoring and control to named individuals within the organisation.

Evaluate use of energy by new equipment when considering purchases.

Revise and maintain staff awareness of the importance of energy consumption.

A number of actions have been taken to further the above objectives, as reported in the three issues of The METER produced to date. These are summarised in the next section.

#### 4.2. *Examples of Good Practice*

The following is a sample of some of the actions undertaken already to minimise energy use and improve management.

- ★ Activities by The “METER” group include raising staff awareness through energy conservation stickers throughout The Deane House; investigating alternative energy for The Deane House such as wind power to charge telephones; transferring responsibility for energy conservation by encouraging all staff to report faults to reception.
- ★ Combined Heat and Power (CHP) units are installed in three of the Council’s leisure facilities. These units increase energy efficiency enormously by utilising the waste heat from electricity generation.
- ★ Loft insulation in The Deane House reduced gas consumption by 2000 therms (approximately 10%) during 1993/4).
- ★ Oil and electric heating systems at Municipal Buildings and Priory Depot replaced with more environmentally friendly gas fired systems.

All of the above measures continue to assist the Council in keeping costs, consumption and harmful emissions to a minimum.

#### 5. **Energy Management Weaknesses**

Although energy management is a very strong area of Council activity, the following suggests some areas where improvement could be made.

- ★ There is no system for developing objectives, targets etc for energy use and management in advance (as in 1.2). Progress, though very good in the past, has proceeded in an ad hoc way, because it was the “right thing to do”, usually on

cost grounds. As opportunities for more technological improvements decline, energy consumption may begin to rise if a systematic approach as in 1.2 is not established.

- ★ Energy management remains the “property” of relatively few people in the Council, yet all staff contribute to “the problem”. Improvements in energy consumption will more likely occur when more staff are included and “own” the issue. An attitudinal shift is required.

## **6. Conclusions and Recommendations**

- 6.1. This review has attempted to give a “Snap Shot” of energy use by the Council and its environmental effects. Its purpose is to provide the starting point for the development of specific activities and targets, as part of a detailed action plan to put the Council’s Environmental Policy into practice. Some of those activities may involve more detailed investigation than this review has undertaken while other activities will be “one-off” improvement measures.
- 6.2 The review offers two broad conclusions which should be acted upon in the development of an Environmental Programme (or action plan) for energy use.
  1. Energy use in Council buildings and activities, and associated emissions of carbon dioxide, should be reduced as far as possible without compromising quality of service delivery.
  2. A Working Group of approximately five Officers, drawn from different Council Divisions and led by the Environmental Co-ordinator, should be established to develop the Environmental Programme for energy and water use.
- 6.3 The following recommendations suggest broad areas where the Working Group could develop specific activities for inclusion in the Environmental Programme.

### **Recommendations**

1. Research new energy saving measures and sources of sustainable energy and investigate the potential for use by the Council.
2. Monitor the Council’s energy consumption, using the figures in this review as a baseline, and report at regular intervals.
3. Concentrate energy conservation efforts in those buildings with the most significant consumption.
4. Concentrate particularly on minimising electricity consumption to reduce emissions of CO<sub>2</sub> (electricity produces approximately 4 times as much CO<sub>2</sub> per unit of consumption as natural gas).
5. Develop ways of informing and actively involving staff and members in efforts to reduce energy consumption.

## **APPENDIX 4 - ENVIRONMENTAL REVIEW OF TRANSPORT USE BY TAUNTON DEANE BOROUGH COUNCIL BY: ENVIRONMENTAL CO-ORDINATOR - SEPTEMBER 1995**

### **1. Introduction**

1.1 Transport use is a key issue of importance identified in the Council's Environmental Policy, which states that the Council will:-

*"PROMOTE A MORE SUSTAINABLE SYSTEM OF TRANSPORT IN THE BOROUGH"; AND*

*"TAKE STEPS TO ENCOURAGE THE WHOLE COMMUNITY TO ADOPT MORE ENVIRONMENTALLY FRIENDLY MODES OF TRANSPORT".*

1.2 This review forms the first stage in an ongoing process of:

- ★ Setting objectives as to what the Council can do to meet its policy commitment, starting by attempting to "put our own house in order".
- ★ Specifying individual activities to work towards the objectives.
- ★ Developing indicators to measure performance of the activities.
- ★ Setting targets for each indicator.
- ★ Setting timescales as to when targets will be met.
- ★ Assigning responsibilities as to which person/section/committee should perform tasks and monitoring.

This review forms one of a series looking at energy and water use, purchasing and waste and pollution arising from the Council's own practices. These everyday issues are termed "direct effects".

1.3 The review is split into the following sections:-

- ★ Scope of the review.
- ★ Transport use by the Council
- ★ Important strengths in transport related activities and examples of good practice.
- ★ Important weaknesses in transport related activities.
- ★ Draft objectives arising from the above.

1.4 This review should be viewed as the starting point for an Environmental Programme, stating objectives to work towards the Council's Environmental Policy and how to achieve them.

### **2. Scope of the Review**

2.1 In this review, the following transport categories are examined:-

- ★ Fleet vehicles
- ★ Essential and casual car use, including leased cars and loans
- ★ Staff travel to work

### 3. Transport Use by the Council

3.1 Table 1 below gives a snapshot of transport use by the Council and its environmental impact.

**TABLE 1 - Transport Use by the Council in 1994/95**

Vehicle Category	Number of Vehicles	Volume of Fuel used (litres)	Mileage ('000's)	Fuel & Mileage Expenditure £('000's)	Carbon dioxide produced (tonnes)	Comments
Fleet	132	***	***	***	500	82% of fleet vehicles are diesel. Volume of fuel issued through stores has risen by 38% since 1993/94
Lease Cars	106	***	***	***	36	26% of lease cars are diesel
Essential Users	72	***	***	***	58	Mileage increased by 24% since 1993/94 with an 11% increase in essential users
Casual Users	127	***	***	***	30	Mileage increased by 36% since 1993/94 with a 12% increase in casual users
<b>Totals</b>	<b>437</b>	<b>***</b>	<b>***</b>	<b>***</b>	<b>624</b>	

3.2 Table 1 gives the volume of fuel issued to the Council's vehicle fleet from Priory Depot Stores only. This represents approximately 75% of fuel used by the Council's fleet of 132 vehicles. The remaining 25% of fuel (including all unleaded petrol on which 18 vehicles operate) is issued by five local garages. No systematic monitoring is currently undertaken to measure the volume of fuel issued through these five garages.

3.3 At the present time, the Council uses six rates for staff travel allowances (three for 'casual users' and three for 'essential users'). The mileage rates increase with engine capacity.

3.4 Motor vehicles produce a wide variety of pollutants potentially injurious to human health. These include carbon monoxide, oxides of nitrogen, black smoke (particulates), and volatile organic compounds (VOCs). Recent air quality monitoring in Taunton shows levels of oxides of nitrogen to be well below guidance limits set by the World Health Organisation. Low level ozone, a secondary pollutant caused by the reaction of NO<sub>x</sub> and VOCs in the presence of sunlight, is known to occasionally breach WHO guidance levels. However, concentrations of low level ozone in Taunton have never reached those sufficient to cause public alarm.

### 3.5 *Motor Vehicles and Carbon Dioxide (CO<sub>2</sub>) Emissions*

3.5.1 CO<sub>2</sub> is the gas principally associated with global warming. It is an inevitable by-product of fossil fuel burning and approximately 19% of CO<sub>2</sub> is generated by road transport. Electricity generation, energy use and deforestation account for the bulk of the remaining CO<sub>2</sub> emissions arising from human activities (source DoE).

The Council's Environmental Strategy Panel has requested that CO<sub>2</sub> be recognised in the Council's Environmental Programme, and that realistic and achievable targets for its reduction be set within the programme.

3.5.2 At present, the Council generates approximately 624 tonnes of CO<sub>2</sub> through transport, not including fuel issued through local garages (1994/95 figures). This equates to approximately 1.4 tonnes per vehicle, or a volume equivalent to eight shuttle buses of CO<sub>2</sub> per vehicle during 1994/95.

## 4. **Strengths in Transport Related Activities and Examples of Good Practice**

4.1 Responsibility for the management and routine maintenance of the Council's fleet of vehicles and plant lies with the Direct Labour Organisation (DLO), Highways and Grounds Maintenance, Transport and Cleansing Section. All new additions to the fleet are diesel and it has been the practice to date to convert all vehicles running on four star petrol to unleaded, although most of the Council's plant and equipment (lawnmowers, generators, etc) still run on four star. Recent scientific research casts doubt on the environmental merits of diesel and unleaded fuel, although the former is attractive on grounds of economy.

4.2 The DLO includes driver education as part of the Council's risk management initiative. This has the potentially significant environmental benefit of reducing pollution caused by inappropriate driving techniques, such as rapid acceleration and braking. There is scope for more strongly pushing home the environmental message as part of risk management.

The DLO is also in the second of a two year pilot project with British Gas, using two Natural Gas Vehicles (NGVs). The NGVs are modified Ford Escort vans and emit less than one-third of the CO<sub>2</sub> of their petrol or diesel counterparts. The two year pilot project is now approaching its end and there is little likelihood that the existing NGV component of the fleet will be expanded, unless a "fast-fill" gas facility is located in Taunton.

4.3 The Council either operates, or is considering a number of initiatives which aim to minimise damage to the environment. These include:-

★ Car Sharing

A staff voluntary car sharing scheme was started up in March 1995 to encourage people to share journeys to work. Involvement in the scheme is open to all employees.

★ Staff Bicycles

There are a number of bicycles owned by the Council specifically for the use of staff on official business. Showering facilities are available for those staff who choose to cycle to work.

★ Fuel for Lease Cars

The Council has established a policy that all new lease cars (since November 1993) must be able to run on either unleaded or diesel fuel.

★ Alternative Transport

The Environmental Co-Ordinator, in partnership with the Crematorium Manager, is looking into the possible use of a new human powered vehicle with storage capacity for routine management tasks within the crematorium grounds. The vehicle may also have an application in the parks department or in street cleansing operations. Investigations continue.

★ Teleworking

A feasibility Study has been prepared (in-house) to look into the possibilities for the practice of 'teleworking' within revenue section. Teleworking is the practice, becoming more widespread with the expansion of Information Technology, of using the home as the workplace. Aside from the obvious environmental benefits of less exhaust emissions, noise and congestion, the feasibility study highlighted reductions in stress for both employer and employee, greater productivity leading to more efficient service and reductions in travelling time and costs among a number of possible advantages arising from teleworking.

## 5. Deficiencies in Transport Related Activities

5.1 The following points indicate where transport related activities and/or their management could improve:

★ Incentives

There are currently no financial incentives for staff to use more fuel efficient vehicles. Existing car allowances do not discriminate against larger, more fuel inefficient vehicles and loan and leasing schemes do not have fuel efficiency incentives built in. The Council does not yet operate a bicycle allowance scheme for staff and members, although this is under consideration.

★ Uptake of Initiatives

The staff bicycles remain vastly under utilised. They were used on only five occasions during 1994/95. A variety of factors could be responsible, including lack of persistent and strong marketing and other factors such as inclement weather, lack of incentives, etc.

The voluntary staff car sharing scheme, started in March 1995, has enticed only a small amount of staff participation. Again, a range of factors could be responsible, including poor marketing, unwillingness to commit to beginning/finishing work at the same time as another employee and the desire for solitude. Better marketing should stress that participation is not a binding contract but merely an offer/request of a lift at any time, subject to the agreement of both car sharers on the day concerned. Whether the participants wish to make car sharing a more every day occurrence is their decision.

★ Information

Information on the volume of fuel issued to the fleet is only partially (75% approx.) complete. Fuel issued through local garages is not systematically monitored and therefore any significant changes in volume supplied to the vehicle fleet may go unnoticed in future years. Monitoring of fuel use could be improved in future.

★ Staff Ownership

Attempts to reduce the environmental impact of transport depend on reductions in the volume of fuel issued and mileage travelled. This will not be achieved without gaining the commitment and ownership of staff in any transport related initiatives. Any existing (e.g. car-sharing, staff bicycles) and future initiatives must be marketed well to staff, with the possible use of incentives, competitions etc to increase uptake.

## **6.0 Conclusions and Recommendations**

6.1 This review has attempted to give a “snap-shot” of transport use within the Council and its environmental effects. Its purpose is to provide the starting point for the development of specific activities and targets, as part of a detailed action plan to put the Council’s Environmental Policy into practice. Some of these activities may involve more detailed investigation than this review has undertaken, while other activities will be “one-off” improvement measures.

6.2 As a forward looking exercise, the review offers three main conclusions to be acted upon in the development of an environmental programme (or action plan) for transport.

1. Attempts should be made to minimise staff car mileage and associated exhaust fumes, provided Council services are not compromised.
2. The Council should look to encouraging the use of more environmentally friendly modes of transport by its staff.
3. A Working Group of five officers, drawn from different Council Divisions and led by the Environmental Co-ordinator, should be established to develop the Environmental Programme for transport.

6.3 The following recommendations suggest broad areas where the Working Group could develop specific activities for inclusion in the Environmental Programme.

**Recommendations**

1. Annual staff car mileage should be monitored and reported on a regular basis.
2. Encourage work practices which reduce the need to travel, eg:-
  - car sharing;
  - avoidance of unnecessary meetings or trips;
  - teleworking and use of IT.
3. Promote and support alternatives to the private motor car within and outside the Council.
4. Investigate the potential for use of incentives to discourage the use of larger, less efficient cars.
5. Take steps to ensure that staff are informed and involved in efforts to address transport and environmental issues.