

Progress against a 2007 environmental audit report carried out at the offices of the Environment Division (Planning and Environment Department) based at Howard Davis Farm

A Report to the Environment Scrutiny Panel

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1.0 Executive Summary

A comparison has been made with the recommended resource management initiatives and associated savings identified by an environmental audit of Howard David Farm carried out in 2007 and what was actually achieved in 2008.

The results are as follows:

1. The audit and subsequent recommendations provided a very useful formal opportunity to 'step back' and assess the position and prioritise areas for improvement;
2. There has been progress against nearly all of the initiatives identified in the 2007 audit although baseline data extraction and monitoring has not been straightforward and new systems have needed to be established and upheld;
3. Reporting, monitoring and recording of data have substantially improved and has helped us to better capture resource use.
4. The building at HDF presents limitations and some substantial improvements would require considerable upgrading of existing systems and this is not considered cost-effective because the long-term future of the Department on this site is not assured;
5. Utility usage has decreased along with expenses, and improvements in line with recommendations from the 2007 Audit Report have been made despite there having been a significant increase in energy prices from 2007 to 2008 and the Environment Division increasing the number of full-time employees based at HDF.
6. In particular, was a 27% reduction in electricity use between 2007 and 2008. However some savings have resulted from 'one-off' actions such as decommissioning infrastructure and better rationalising office space (staff having have been relocated from three office blocks down to two, enabling the closure of one block and associated savings). Others savings have resulted from behavioural changes. Nevertheless, it was the impetus of the 'audit' that brought many of these issues to the fore and enabled structured action to be taken and measured.

2.0 Background

An environmental audit was carried out of Howard Davis Farm (HDF) in 2007 with the following objectives:

1. Identify areas of environmental improvement and resources savings that could be made in respect of the Environment Division's main office base and associated operations at Howard Davis Farm, Trinity;
2. Use the information this information to inform the development of the ECO-ACTIVE BUSINESS accreditation scheme.

HDF is a converted farm and barn building with external facilities such as greenhouses, storage sheds and research facilities. Prior to the audit there were no formal 'good housekeeping' policies in place: many of the recommendations of the 2007 report were based on a behavioural change by officers.

The audit estimated that there was the potential to save up to £8000 per annum in the first year of implementation of the Audit's action plan, with a predicted cost of between £600 – £1000 (indicative figures only). An actual reduction in expenditure of £6,809 (plus £700 in avoided expenditure) could be quantified with expenditure of £2,400 to achieve this. However these figures should be noted with caution since they do not necessarily represent recurring savings arising as a result of demand management; Section 3 explains the particular circumstances.

3.0 Progress by resource area

Each area addressed by the 2007 audit will be considered in turn. Firstly progress against the 2007 recommendations will be shown using a red, amber and green coding system

Secondly the impact of the measures on the quantities and costs of the resources will be shown again using the red, amber green coding system as follows:

- Green - on track with progress / improvement;
- Amber - slightly off track with some progress / improvement;
- Red - off track with no progress.

3.1 Oil

The Department uses oil for central heating. The following table shows progress against the recommendations made in the 2007 report

2007 Audit Recommendations	Progress against 2007 Recommendations
Raise awareness of how to use the boiler controls.	Office Manager has received training plus one other staff member.
Restrict the thermostats on the radiators / turn down by 1 setting = 10% saving.	Eco-active leaflets displayed and faulty thermostats replaced.
Establish an ongoing monitoring of the oil deliveries.	Monitoring programme in place
Remove items that are currently blocking the radiators in some of the offices.	Complete.
Consider relocating the inspectors into the main	Office space – relocated staff into 2 office blocks

building.	and closed down one block.
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Oil consumption per FTE decreased slightly in 2008 but due to the considerable increase in oil prices from 2007 to 2008 costs per head almost doubled.

The small reduction in the quantity of oil consumed per FTE between 2007 and 2008 were most likely achieved as a result of simple measures such as a more effective use of office space e.g. moving desks away from radiators etc. In addition other factors such as the weather will have contributed.

A more significant decrease in the consumption of oil can only be expected if the entire heating system (i.e. radiators, boiler and associated pipe work) is updated to current specifications but this would be a considerable investment. Since the long-term location of the Department is not secured at HDF this measure is not scheduled although the pipe work is extremely old and will require replacing in the short-medium term

Summary Table – Oil

OIL	2007 (45 FTE*)	2008 (47 FTE)	Trend
Litres	9,500	9,600**	Stable
Cost per head	£65.14	£86.70	Increase
Unit per head	211	204	Slight decrease
Indicative cost per litre	30.8p	42.4p	Increase

*Full Time Equivalent post – i.e. a measure of staff numbers using the building

**N.B. 5,000l of oil were delivered on 28th Dec 2008 into an empty tank and have been discounted since this was stock carried over into 2009

3.2 Electricity

Electricity is used for lighting and secondary heating. HDF is an old building and not purpose built as offices and as such there were many areas where lighting improvements were identified.

2007 Audit Recommendations	Progress against 2007 Recommendations
Introduce a low energy lighting policy for all replacement tubes and bulbs.	Introduced task lighting where it is difficult to fit overhead lighting.
Replace the Reception area halogen spotlights with low energy LED lighting.	Appropriate advice taken. Installed low energy lighting in reception (replacing high energy spotlight lighting) and newly refurbished office spaces. Expenditure to achieve this refurbishment was £2,400.
Raise awareness of the need to switch off lights when there is no one in the room. Also extend to other devices	Raised awareness amongst staff has been made via a sticker campaign. Accreditation to Eco-Active Business Level 1 i.e. an Environmental Charter.
Remove the tubes from the first floor pelmet lighting.	Some fittings have been removed where practical and where task lighting has been installed. Due to nature of sloping ceilings unable to install new light fittings but will replace lighting tubes with low energy bulbs.
Request IT enable all energy savings settings.	All States Departments follow directive for powering down PC's and peripherals.

Purchase a plug in energy monitor to carry out assessments of the energy use of appliances and office equipment. Involve the staff in carrying out the monitoring and measurement.

Some progress has been made. Some trailing of energy monitor.

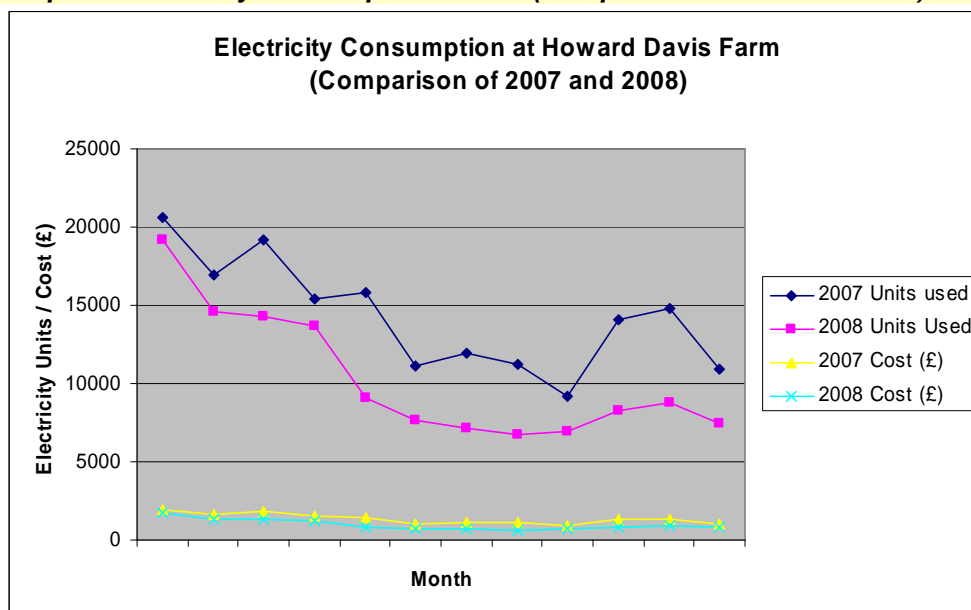
There has been a significant decrease in electricity consumed in 2008 (27% of units) as illustrated in Graph 1 with a saving of **£4,551**, this is against a backdrop of increasing energy prices. This has been achieved by the following measures:

- Behavioural improvements;
- rationalising office space and closing one external office block;
- A considerable portion of these savings have been achieved by the decommissioning of the Department's research greenhouses between 2007 and 2008 although the precise amount cannot be quantified.

Summary Table - Electricity

ELECTRICITY	2007 (45 FTE*)	2008 (47 FTE)	Trend
Units	171,331	123,791	Decrease
Cost per head	£360.17	£248	Decrease
Unit per head	3807.4	2633.9	Decrease

Graph 1. Electricity Consumption at HDF (Comparison of 2007 and 2008)



3.3 Water

The operational business of the Department means that there is significant water use compared to conventional office activities e.g. laboratories. Nevertheless, the 2007 audit identified an unexpectedly high water use for the Department over that quarter and recommended a leak survey. This was carried out and immediately a mains water leak identified and resolved leading to mains water usage

The identification and fixing of the leak as well as additional water saving measures, e.g. installing 'Hippos,' has led to the reduction of water use by approximately 1/3 between 2007 and 2008 and an associated drop in expenditure of **£2,258**.

2007 Audit Recommendations	Progress against 2007 Recommendations
Request leak survey and report from Jersey Water.	Leak survey carried out in Q4 2007 which identified mains water leak. Repair carried out and consumption reduced.
Trial tap magic device, roll out to all taps.	Tap magic devices do not fit into outdated taps. To make improvements all taps will need to be replaced and given uncertain long-term future at HDF this has been put on hold.
Consider pay back for fitting showerhead.	New showerhead fitted in ladies shower.
Install hippos in all toilet cisterns.	Hippos installed in all WC's. Have trialed eco urinal tablets to reduce amount of water.

Bottled water use has remained static despite the increase in staff from 45 FTE to 47 FTE. HDF currently has two water stations located on the ground and first floors with staff having the option to use filtered water if preferred. It is convenient to leave a water station in reception for visiting members of the public, but it could be argued that the first floor station is removed. This, however, could cause inconvenience for meetings, which are often held in the first floor Committee Room. The consumables associated with bottled water i.e. plastic cups are undesirable and attempts have been made to remove their availability and offer glasses instead especially for meetings when it is a simple matter to provide glasses.

WATER	2007 (45 FTE*)	2008 (47 FTE)	Trend
Units	1455	976	Decrease
Cost per head	£71.9	£48	Decrease
Unit per head	32.3	20.8	Decrease
Bottles	96	96	Stable
Unit per head of bottles	2.1	2.0	Stable
Cost per head of bottled water	£16.60	£15.90	Decrease

3.4 Paper, office consumables and furniture

The Department does a considerable amount of its own printing/ copying publications e.g. the quarterly printing of the Rural Update and the Fisheries & Marine Resources newsletter, borehole registration forms and the annual Countryside Renewal Scheme pack. In addition there is in-house printing of large policy documents such as the draft Island Plan Review and the draft Energy Policy.

2007 Audit Recommendations	Progress against 2007 Recommendations
Hold an office amnesty to reclaim unused stationery as part of an awareness campaign	Not considered a priority as officers do not tend to keep unused stationery as a stationery cupboard is available on each floor. Recycled office furniture has been utilised (from stock held at Fort Regent) to kit out recent office refit – Approx. £700 was saved as a result of this. Another office refit carried out using recyclable corporate range.
Research printing options	Further printing options will be implemented as part of a central multi-functional device project. Policy now to phase out desktop printers. Printers set to duplex by default.
Specify recycled paper for all printing and publications	Only use recycled paper and using up old stocks of paper for faxing and internal printing. Main printers are setup for recycled paper use.

Specify environmental option for all stationery purchases.	Has been carried out by the Procurement Team as part of a States of Jersey contract.
Change water coolers to filter and chill system, either with a mains fitted filter or through the use of filter jugs.	Due to uncertainty of department re-location these options have been placed on hold. Will reconsider in 2009.

Accurate recording of the Department's three main photocopiers' and use of single sheets of paper used by the Department in 2008 compared with 2007 has increased by 20,243 sheets. Despite a business case for a reasonably high level of paper usage, a significant positive shift has been the change from non-recycled to recycled paper.

Summary table – Paper

PAPER	2007 (45 FTE*)	2008 (47 FTE)	Trend
Sheets of paper photocopied	249,940 sheets of paper	270,183 sheets of paper	Increase
Sheets of paper photocopied Cost per head	£145.51	£158.29	Increase
Paper Use Reams A4 Non-recycled	370 reams (8.2 reams / FTE @ £15.50 / FTE)	240 reams (5.1 reams / FTE @ £9.40 / FTE)	Decrease
Cost per head of A4 non-recycled paper	£15.5	£9.4	Decrease
A4 Recycled	N/A	195 reams (4.1 reams/FTE @ £9.50 / FTE)	Shift to recycled paper
A3 Non-recycled	15 reams (0.3 reams / FTE @ £2.20 / FTE)	5 reams (0.1 reams/FTE @ £0.6 / FTE)	Decrease
A3 Recycled	N/A	15 reams (0.3 reams/FTE @ £2.30 / FTE)	Shift to recycled paper
Letterhead non-recycled	40 reams (0.8 reams/FTE @ £4.00 / FTE)	22 reams (0.5 reams/FTE @ £2.70 / FTE)	Decrease

3.5 Transport

The Departmental business means that there is considerable necessary on-island travel for example agricultural inspections, many monitoring and survey regimes, responding to pollution incidents, site visits and travel between the Trinity Offices and St Helier.

There are 2 ways that business mileage is carried out – either using an officer's own car with the mileage being recorded and then claimed back at the States of Jersey standard rate or by using a Departmental lease car or vehicles owned by the Department. Unfortunately in the case of the latter two categories, mileages are not recorded over one complete calendar year. For example, the handover in 2007 was in September and in 2008 the end of October. Therefore, valid comparisons can only be made for the purposes of this report for business miles claimed back by officers. In 2007 there were 6,708 miles 'claimed back' and in 2008 this rose to 7,510.

It is recognised that the business needs of the Department will always mean that mileages are quite high but there is scope to reduce dependency on petrol/diesel options and to more effectively use lease cars to reduce over costs. The Department has purchased an electric scooter with the intention of using this to travel into the town offices although it is

not used extensively. Furthermore investigations were made into trialling proto-type electric cars but unfortunately the business case did not represent best value.

A car pooling system was put in place in place at the beginning of 2009 with the intention of getting best value from the vehicle resource. A more rigorous monitoring procedure of mileage etc has been put into place for the calendar year 2009.

2007 Audit Recommendations	Progress against 2007 Recommendations
Ensure staff of the policy to use lease vehicles for business use wherever possible.	Complete.
Discuss potential for obtaining a lease electric car to replace a diesel model, with corporate procurement.	Extensive investigations but cost outweighed benefit.
Run a scooter familiarisation day to try and build staff confidence in the electric scooter and encourage its use.	A scooter familiarisation day is planned for summer 2009.
Develop a green travel plan for the department and introduce a 20% plan to encourage staff to use sustainable transport at least once a week.	No travel plan has been developed however staff have been made aware of the car share website traveltogether.gov.je
Set up a shared diary for use of the lease cars to enable staff to lift share to meetings.	Car pooling – now have 8 vehicles in car pool.

3.6 Waste

Measures to promote recycling and appropriately separate waste at source have been forwarded and measures to reduce paper use by ‘duplexing’ have been successful although as we have discussed above, the Department does use a lot of paper in the conduct of its business.

2007 Audit Recommendations	Progress against 2007 Recommendations
Carry out a waste audit to give an indication of waste volumes collected for recycling and disposal.	A baseline audit has not been carried out but recycling efforts have been increased - 100% of all paper is recycled including confidential shredding. Other recyclables include magazines, cardboard, compostable kitchen waste and telephone directories.
Encourage sensible use of email – I you can see the person, talk to them rather than send a message!	All offices are located in the one building which in itself encourages face to face discussion as opposed to electronic communication.
Set printers to duplex mode	Printers have default settings to double sided printing.

3.5 Biodiversity

HDF is a converted farm building in a rural location, surrounded by extensive grounds with significant biodiversity value. There are red squirrels and a bat colony on site, both protected mammals under the Conservation of Wildlife (Jersey) Law 2000. Opportunities to manage the grounds in a more wildlife friendly manner have been taken up – for example reducing the frequency of grass cutting to improve plant diversity and associated insects. However this management change has required communication to visitors to the offices who previously have seen the grounds maintained more formally.

2007 Audit Recommendations	Progress against 2007 Recommendations
Discuss the grounds maintenance contract with Property Services and create a model contract for all departments to adopt.	Property Services not responsible for grounds maintenance. As a Department, we consult with the contractor as to how they should manage the grounds for wildlife. This includes a less frequent cutting regime.
Discuss the potential for a general building maintenance contract which favours biodiversity with Property Services and ensure it is used for all repairs and maintenance issues relating to HDF.	Difficult to establish as building maintenance is split between Property Services and Department. Both Departments take into consideration biodiversity issues e.g. bats.
Revise the current grounds maintenance contract to include monitoring and reporting when it comes up for renewal.	Not appropriate to request contractors to provide monitoring. Departmental monitoring programmes (e.g. butterfly monitoring) could use some data collected by department e.g. butterfly monitoring.

4.0 Conclusions

Good progress has been made in a number of areas but it has been more challenging in others and a particular issue has been applying resources to baseline the information sufficiently and then implement progress. Additionally current systems make it difficult to extract the relevant management information.

However, the Department is committed to continual improvement and all amber and red sections of the recommendation tables are being prioritised for improvement. The Department is currently becoming accredited to Level 2 of the ECO-ACTIVE BUSINESS scheme and these issues are being addressed as part of the action plan. Continued and more robust monitoring will make it easier to identify cost savings as a result of the measures implemented.

5.0 Reference

Glover, F. GlobaltoLocal.com. Howard Davis Farm Environmental Audit Report. August 2007.